bbdbulletin

DECEMBER EDITION **2018**

BBD **benefits**
Challenge accepted
Five **steps** to **becoming** a **BA**

BBD **partners with Ilion**
GirlCode Hackathon
For the **love** of the **game**

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Note from the Ed

And so another year bites the dust! Saying that it's been an eventful year at BBD would be quite the understatement. We've achieved a level 2 B-BBEE rating, our annual esc@pe event celebrated its fifth anniversary, we've revamped our offices and celebrated our 34th birthday with a BBD Bake-Off!

We're particularly proud of Xpertek and Ilion joining our group of companies this year, adding robotic process automation and financial data modelling to BBD Group's technology solutions. Welcome to the family, guys!

Other highlights in this December edition include pics from our annual Bierfest, the GirlCode Hackathon, our Arabian-themed year-end functions and Eddie losing an impressive 20kg in six months.

After such a busy year, most of us are already in holiday mode. So much so that the marketing team took a trip down memory lane and dug up some of our favourite holiday pics (check them out on the opposite page).

With so much happening at BBD these days we're already planning the April 2019 edition, so if you're doing something fun in December or have anything to share with BBD, please remember to email **marketing@bbd.co.za**.

For those taking some time off, please keep safe this silly season.

See you back in 2019 for our 35th year!

2018 AWARD
NOMINATIONS

WHAT'S THIS **ABOUT?**

The Award Nominations give recognition for **exceptional solution and service delivery.** They recognise excellence within the company by rewarding BBD staff who go above and beyond the call of duty for our clients and colleagues. Those who are "doing what it takes" so to speak.

HOW DOES THIS **WORK?**

The 2018 Award Nominations accept nominations for anybody in any of the categories, with **two winners selected every month!**

The nominations run from February through to October, and the grand prize winners are announced in November. The monthly winners choose an awesome prize and are entered into the final draw, where three lucky people stand a chance of winning a piece of the R120 000 at the end of the year!

1st R60 000 // 2nd R40 000 // 3rd R20 000

Monthly winners **"PICK A PRIZE"** from a choice selection. And in addition, winners select from a **range of charities** for BBD to donate R1 000 on their behalf!
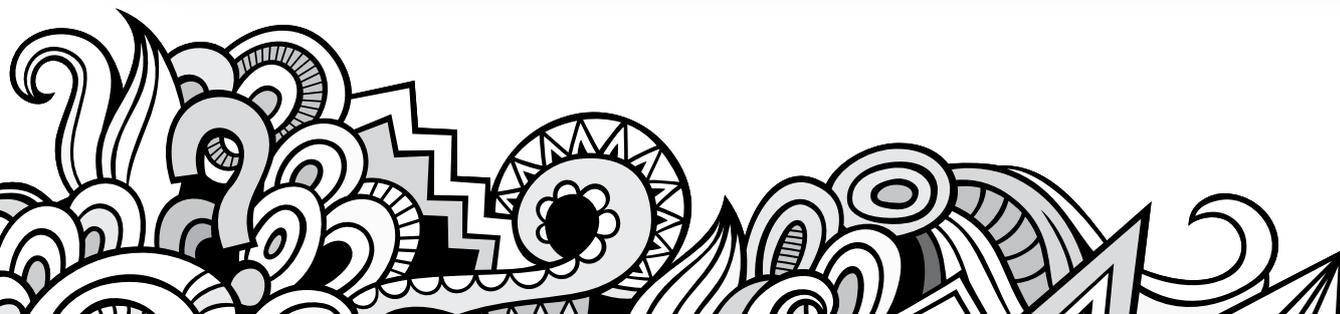
THE **CATEGORIES**

ULTIMATE BBD AGENT

This is the individual who spearheads the conversion of ideas into realities, fosters the BBD philosophy at every turn with a relentless ambition to promote the true essence of what the company stands for and upholds the BBD brand in everything they do.

GRASPS **OPPORTUNITIES** & **WISDOM**

This category recognises the improvement and development of skills. A person who takes the initiative to develop and improve their career through continuous learning and skill acquisition and successfully seeks out training or on-the-job opportunities for developing skills.
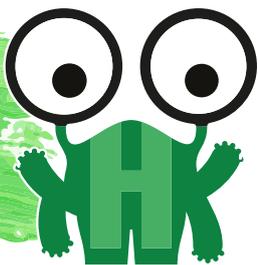
HELPING YOUR PEOPLE

Recognising the individual who always delivers an extraordinarily high standard of work, and is acknowledged in their team as a mentor, sharer of skills, time and knowledge.

WHATEVER IT TAKES

This category is for the kingpin of perfection and reliability – the person who is driven towards ensuring client satisfaction no matter what the personal cost. An almost endless source of dedication, passion and enthusiasm, this individual is a tireless long-term champion for the successful delivery of projects.
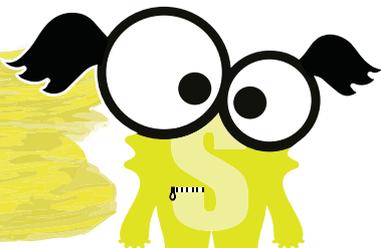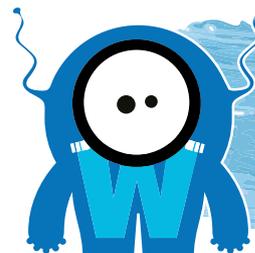
THE **SILENT** OPERATOR

Quiet and dependable, the stealth award is designed to recognise the individual who is not often heard, but whose positive impact is always keenly felt.

AWARD NOMINATIONS
WINNERS
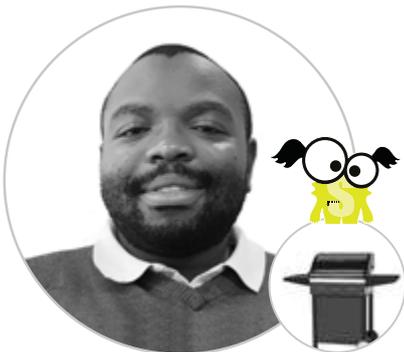
FEB // Qinisela Molefe
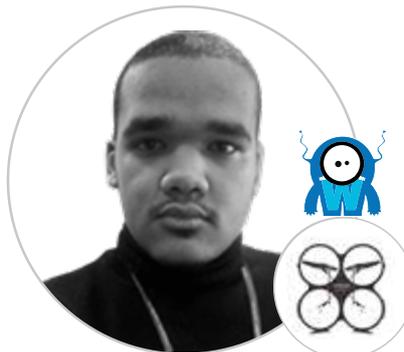
FEB // William van Staden

Mar // Rudolf Stander
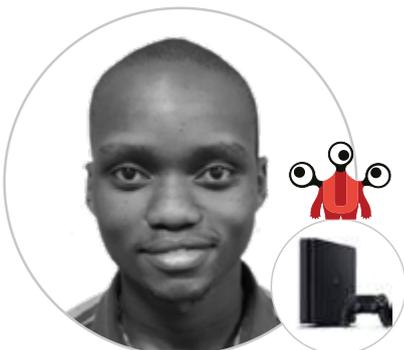
Mar // Lucky Nkosi

Apr // Mandla Mbuli

Apr // Mokgaetsi Moloatse

May // Alex Sukharuchkin
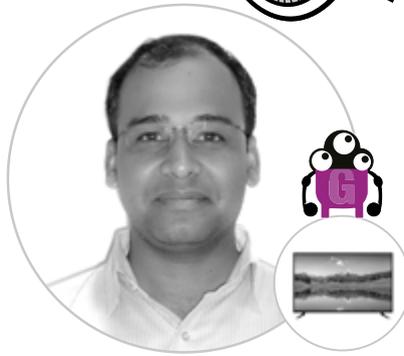
May // Neelesh Mishra

May // Tanya Sehannie
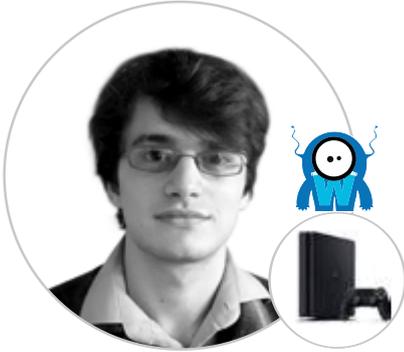
JUN // Cameron Theron

JUN // Reece Garratt

July // Allistaire Clark
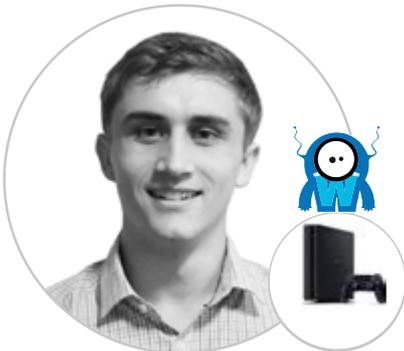
July // Hein Sunkel

AUG // Georg Lochner
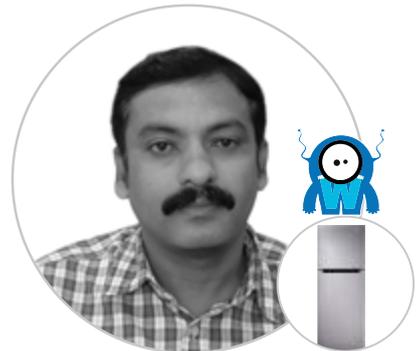
AUG // Sreenivasulu Parla
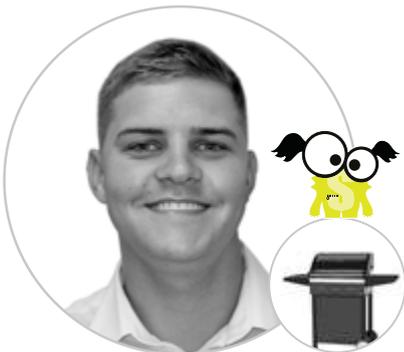
AUG // Zander Potgieter

SEP // Rudie Duvenage

SEP // Lance Reid

OCT // Wian Potgieter
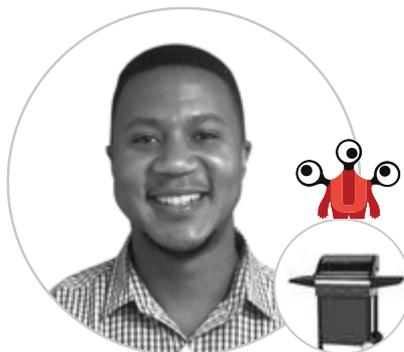
OCT // Stephen Khabo
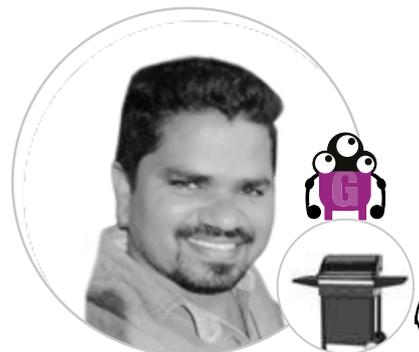
OCT // Rakesh Kamdi

bbd bierfest 2018

bbd
bierfest/2018

Got Ink?

Pay close attention next time you walk through any of the BBD offices and you'll see some badass body art peeking out all over. We asked staff to flamin-go for it and submit pics of their favourite ink for the BBD Got Ink competition. Once the tattoo, henna and stick-on entries were in, staff voted for their best and the lucky winners walked away with R 4000 // R 2000 // R 1000 tattoo vouchers respectively.

Winners

Telisha Baartman
FIRST PLACE

James Vodden
SECOND PLACE

Tanya Enslin
THIRD PLACE

BBD
GROUP

BBD is Africa's leading provider of custom software development, system support and maintenance, with the longest track record and largest skills base. BBD's ability to deliver sustainable solutions sets it apart from its peers.

BBD Pune complements BBD SA's core business by attracting the most talented individuals that one of India's top university cities has to offer. As Pune is a growing IT hub, BBD India is also able to access specialist skills that are scarce in South Africa.

Fusion Software, a BBD partner, is a powerful, innovative and integrated software solutions and business management tools provider. With solutions built by real people for real people, to deliver value and true assistance to customers. Their modern business management software incorporates software and web solutions, app and custom development and integration.

Ilion links data and financial performance to deliver solutions that optimise business operations. Their services include financial risk-based analysis, data management and advanced data analytics – all provided by a team of skilled consultants. Ilion is technology neutral and works alongside their clients to seek the best solutions for their needs

Innosys, a subsidiary company of BBD, is a specialist in the development of custom software systems for the South African, UK and European insurance industries. Innosys has extensive insurance knowledge and experience in the development, implementation and post-implementation support of systems across a range of short term, life, commercial and specialist niche insurance domains.

Xpertek Contact enables retailers to leverage the power of digital solutions and the portability of mobile devices through location-based marketing capabilities, enhancing any size company's internal operations using robotic process automation. Partnering with leading technology companies and recognised leaders has equipped Xpertek Contact to serve and support medium to large South African corporates.

Sphere Investments // 49.9%
Broad Based Educational Trust // 1.1%

BBD Management // 49%

BBD // 100%

BBD // 26%

Fusion Software Management // 74%

BBD // 51%

Ilion Management // 49%

BBD // 73%

Innosys Management // 27%

BBD // 30%

Xpertek Management // 70%

PREMIER VERIFICATION

B-BBEE Verification Certificate
Issued to:

Barone, Budge and Dominick (Pty) Ltd

1 Newtown Avenue, Killarney, Johannesburg, 2193
Company Registration: 1984/007889/07
VAT: 4070111713

LEVEL TWO (2) CONTRIBUTOR
B-BBEE RECOGNITION LEVEL- 125 %

Generic Scorecard -
Amended Information and Communication Technology Sector Code (Section 9(1): 40407)

Criteria	Result	Weight
Ownership	25.00	25.00
Management Control	12.21	23.00
Skills Development	14.85	20.00
Enterprise & Supplier Development	51.14	50.00
Socio-Economic Development	12.00	12.00
Overall Result	115.20	130.00
Priority Elements Achieved	Yes	
Empowering Supplier	Yes	
Nature of Business	Software Development	

Element	Result
Black Ownership	51.01%
Black Female Ownership	15.41%
Designated Group Supplier	No
Modified Flow Through Applied	Yes

Exclusion Principle Applied	No
Measurement Period	28 February 2018
Re-Issue Date	Not Applicable
Issue Date	29 June 2018
Expiry Date	28 June 2019
Certificate Number	PV_1806017

Matthew Kearns
Premier Verification (Pty) Ltd

sanas
BBEE Verification Agency

BVA100

As a level 2 contributor, BBD shows an on-going commitment to all the different aspects of B-BBEE. The pillars that are used for measurement of a business in the ICT sector are designed to require a B-BBEE focus on ownership, management, procurement, employment, training, business development and social initiatives.

A recent change in the ICT Sector B-BBEE codes has meant that social initiatives are now focused on helping South Africans cross the digital divide. BBD's level 2 score, along with being recognised as a value adding enterprise, means that BBD clients can claim 125% of every rand spent with BBD as B-BBEE spend.

Let your bumper shine this summer

BBD offers free eco washes twice a week to employees
to keep you and your car feelin' groovy!

BBD **BENEFITS**
all the perks you need!

bbd
software development

www.bbd.co.za

Café and coffee stations

- Fully stocked vending machines with free snacks
- Breakfast cereals
- Cheap and delicious chow
- Fresh fruit and bread daily
- Unlimited BBD branded still and sparkling water
- All the microwaves, cutlery, crockery and condiments you could need
- Endless coffee – Tanzanian Mbeya, Burundi and Ethiopian beans
- BIBO water dispensers for instant hot, tepid and cold water
- Comfy couches and chill zones

Best for the best

- 50% medical aid contribution
- BBD facilitated medical aid gap cover option
- Retirement annuity option
- Group life, disability and dread disease cover
- Financial advisor
- Bonuses for exceptional performance
- 3G reimbursement – project specific
- Standby allowance – project specific
- Flexi working hours – project specific
- Annual salary review
- Had a baby? You get flowers and moola
- Tied the knot? You get moola
- Staff recognition through monthly award nominations. The prizes include Samsung gear, drones, Playstation consoles, GoPros, TVs, gas braais, sound systems, cinema projectors, stocked wine fridges AND the winner gets to donate R1 000 to a charity of their choice. Winners are announced at the annual Bierfest where nominees have the opportunity to win loads of cash (like R120 000!)

Work environment

- High-tech tech
- Breakaway rooms and private phone rooms
- Secure parking
- Safe working environment
- Chilled atmosphere
- Encouraged creativity and collaboration
- Gautrain shuttle to and from Rosebank station

Healthy habits

- Vitality Health assessments
- Free flu vacs and vitamin B injections
- 5 blood drives per year
- Annual wellness days with cocktail and sushi bars, reflexology, mani, massages, stress management, hypnotherapy, live blood analysis, biokineticists, chiropractors, games, photo booths and so much more. We even gave away awesome spot prizes like Nutribullets and Stormtrooper lights

Events

- Trailblazing annual tech event – esc@pe
- Kickass year-end functions with great entertainment, delicious food and taxi services to make sure you get home safely
- Mid-year update party to keep you in the loop
- Annual Bierfest where teams brew their own craft beer
- Industry meetups
- Team lunches
- Unique team building events

Upskill like a boss

- Mentoring
- Internal and external training
- Online training
- Onsite / VC training by SA's top IT specialists
- Certifications
- Ability to attend key technical events
- Financial aid to assist with further studies
- Bursary, learnership and graduate programmes
- Enterprise development for young up and coming IT professionals
- Career development
- Socio-economic development

Fort kickass

- Games room with arcade machines, table tennis, darts, pool table and giant Jenga
- Putting greens
- Payday chocolates
- Competitions with awesome prizes
- Bar
- Jukebox
- Board games
- 42'' TV screens and projectors

Sport vibes

- Sponsored uniforms for all sports teams
- Action cricket
- Cycling
- Netball
- Soccer
- Fitness groups
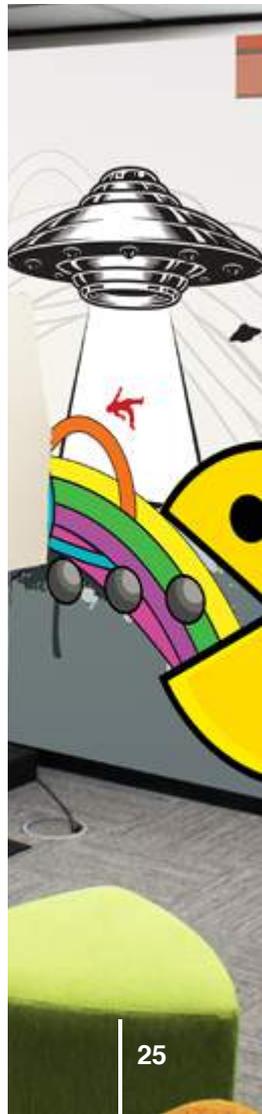
Industrial revolution

SA's shortage of software skills needs urgent attention

Lack of software skills is one of the biggest challenges facing South Africa, as the country looks to the Fourth Industrial Revolution (4IR) to unlock growth.

President Cyril Ramaphosa has prioritised South Africa's readiness for the 4IR, the new next wave of technology development – in which the digital, physical and biological worlds converge.

In his State of the Nation address in February 2018, he said that he planned to set up a Digital Industrial Revolution Commission to help government think through strategies for South Africa to take advantage of rapid technological changes.

It will be very important that such a commission engages closely with the public and private sectors and the full spectrum of educational institutions, from primary to tertiary education and international technology leaders, to share best practices and provide innovative ideas and fresh expertise.

Ultimately, flexible partnerships between the government and business are crucial if South Africa is to successfully upgrade its skills to be compliant for the 4IR. Furthermore, adopting a flexible educational strategy will be vital to come up with new ways to transform the country's existing skills base into a 4IR compliant one.

Industry 4.0 was formed in 2011 in Germany, as a project to examine how the convergence of digital and operational technologies – in the context of the complete industrial value chain – would digitally transform manufacturing.

Since then the idea has expanded beyond manufacturing into other sectors, such as service industries. From this we've seen the emergence of connected factories and industries with smart decentralised self-optimising systems and digital supply chains, all driven by information technology in a combined physical-virtual world. This has become known as the 4th Industrial Revolution.

This convergence of physical and virtual worlds referred to as Cyber-Physical Systems is creating massive potential for change in the economies and societies of the world. Globally companies and governments are investing in this potential and South Africa should be doing the same.

It is interesting to note that the technologies of the 4IR are not limited to multi-national corporates and can be applied to small and medium enterprises.

Even a small factory linking its production line capacity into the supply chain will result in manufacturing efficiencies and create opportunities for business to supply and support this capability.

Given South Africa's current primarily unskilled labour pool, and poorly performing education, we have to look at new innovative ways to educate our people to acquire the skills needed to capitalise on the 4IR.

An example of how to tackle our skills challenges in information technology (IT) is the Cape Town and Johannesburg based tech institution WeThinkCode_ (WTC).

This is a free peer-to-peer learning institution, which uses an innovative process to select students with a programming aptitude, enthusiasm and willingness to learn, to join the two-year course. Apart from being free, it requires no prior experience and even a matric is optional.

BBD is one of three founding corporate sponsors of WTC and has experienced real benefit from the investment by significantly boosting recruitment of top quality programming graduates.

In a country where software engineering graduates are in short supply and sometimes not properly trained as application software developers, this is an innovation that has the potential to be a game changer.

In the IT domain there are a many career options and skills requirements other than programming. Anecdotal evidence indicates that 10 jobs are created for every programmer that is trained and deployed into the market. It is imperative that similar vocational based training approaches are used to skill up South Africans for roles in operations, networking and other technology functions. A worldwide trend towards vocational training for a specific skill set, allied with apprenticeships, is becoming an excellent alternative to university training. It has the further benefit of being largely industry funded with less student debt and country investment.

An approach that develops skills in the technologies of 4IR with specific vocational training, as per WTC, will benefit South Africa. This thinking ties in with President Ramaposa's Youth Employment Service (YES) initiative, should that initiative recognise relevant 4IR related vocational training as part of the programme.

To further develop our local capabilities, South Africa must make it attractive, and easy, for immigrants with 4IR skills to move to South Africa and join in developing our industries.

If the anecdotal job multiplier evidence is to be believed, a single programmer can have an immediate impact on job 4IR creation.

Currently, in spite of our dire shortage of IT professionals, the hurdles to obtaining work visas for foreign skills are substantial. This approach flies in the face of other countries who open their arms to our technology graduates. BBD has experienced this directly, with top software development professionals being specifically targeted by head hunters and moving to Australia, New Zealand, Germany, the Netherlands, the UK and the USA.

With further collaboration between business and government, along with initiatives such as YES, South Africa can become a country with a future linked to the 4IR. We have the people and they just need the opportunity.

Peter Searle & Ralf Dominick
BBD CEO   **BBD CHAIRMAN**

Given SA's current primarily unskilled labour pool, we have to look at new ways to acquire the skills needed to capitalise on the 4IR

esc@pe

2018

This year we celebrated the 5th anniversary of our BBD esc@pe technology conference and hosted some of the most amazing presentations we've seen to date!

Themed around the 4IR - the four tracks comprised of Development, Analysis, Showcase and Development Plus.

Topics ranged from sarcasm-as-a-service to pink hardhats and other anomalies, the role of the business analyst and how Industry 4.0 is disrupting our world.

Lucky walked away as the overall winner of the day with his presentation: *Playing with your food and everything else!* where he used fruit as a game controller to demonstrate the importance of doing simple things to learn complex processes.

Head over to **www.youtube.com/BBDSoftware** to watch all the presentations and Q&As with the presenters.

bbd
fl@sh

"Our fl@sh challenge tested ingenuity in solving problems using software, hardware and creative thinking."

If there's one thing we love at BBD, it's a challenge. This year, our fl@sh challenge tested ingenuity to solve problems using software, hardware and creative thinking. As part of the hackathon, teams had to build a software and hardware fusion to solve either a novel solution to a workplace problem or had to use hardware and software to create something fun.

The challenge ran over the course of two weeks and ten teams presented their solutions at our annual BBD esc@pe event.

FIRST PLACE
It's not a bug, it's a feature
Brandon, Luke, Nimesh and Thabiso created a hardware solution that uses your BBD access card to allow you to order food from the canteen. Overall, this was an excellent use of hardware integration. The team also had a working demo for their presentation (and we all know how difficult that can be), plus they built something that would actually be useful within the business.

SECOND PLACE
Code Complete
This two-man team comprising Matthew and Vutlhari used hardware integration to create an interesting and useful solution. This hardware solution would allow BBD employees to scan their receipts and submit them to our online claims system, thereby streamlining the current process.

THIRD PLACE
Flash
Justin, Kagiso, Reyno and Q created an app that can provide directions to boardrooms and other information about the BBD office. They used QR codes in an interesting way and had a working website to demo their solution.

BEST ELEVATOR PITCH
Team 2
This team created an awesome two-player wizard game with a video that had great animations throughout. This really showcased the "fun" category of this year's challenge.

OTHER PARTICIPATING TEAMS INCLUDED:

Dream Krusher Club
An AR game that allows employees to find notices and information around the office using their phone.

Nimbostratus
An interactive AR game that works with random objects in the office as checkpoints in the game.

Planet Express
A microphone which records meetings and automatically transcribes it into meeting minutes.

Strange Tides
A timesheet management app that helps you record your timesheets on your phone, based on your phone's location.

ThunderHawk5
An app that allows you to post questions about the company to an internal forum, where other employees can answer.

Trisaurus
An app that connects the different music providers (Apple Music, Google Play Music, and Spotify) into one streaming location.

Well done to all the teams and thanks for participating!

BBD'S ACTURIS MOBILE TEAM HITS A HOME RUN

"We are increasingly finding that the insurance industry expects mobile solutions from its software providers in order to keep employees connected and maximise efficiency across the business" explains James Gillard, product manager at Acturis.

Operating in such a competitive and fast-moving industry, Acturis' customers depend on a platform that provides fast, portable and reliable access to client and policy data across their entire network of brokers and account managers.

"To this end, Acturis set out to create a native mobile application for account executives and business owners, who spend much of their time out of the office managing customer portfolios and relationships. With increasing competition pressure and demand from our clients, we needed to create a solution that would be quick to market while meeting the exacting standards users have come to expect from our products" adds Gillard.

Performance feedback - 94% rated as Good / Very Good
Usability feedback - 88% rated as Good / Very Good

FRAMEWORK

BBD's Acturis Mobile team was tasked with creating a native application which would meet this brief. The mobile team identified Xamarin forms as a promising emerging framework that would allow the .NET developers to apply years of Acturis experience to creating native mobile apps with a large degree of shared core code.

The team set out to create a scalable, robust foundation on which the application could be built and rapidly expanded upon in future. Key framework concepts incorporated into the project included:

• The authentication, business logic and communication framework were moved from the core Acturis system to a .NET Portable Class Library, drastically reducing the potential build time of the project and giving assurance that critical functionality would be implemented without issues.

• TLS client certificate authentication was enforced by Acturis as a means of negating potential vulnerabilities introduced by opening our infrastructure to the whole web. The mobile team created a solution for mobile devices to be registered with an Acturis Certificate Authority, with devices storing and providing the issued certificate during the TLS handshake.

• A shared-screen framework to allow many similar pages to be built using one set of Views and ViewModels. This kept the app's payload size and memory requirements to a minimum, giving room for expansion and guaranteeing consistency in layouts and functionality.

• A lightweight, extensible, cross-framework navigation framework to meet the complex demands of navigating Acturis records in an intuitive and mobile-friendly manner.

CHALLENGES

"The first challenge we had to overcome was the very specific requirements Acturis wanted on device registration and security, as this was the first time they allowed traffic to their servers from outside a controlled network" writes Louis Terblanche, team lead for the BBD Acturis mobile team.

The requirements were that when a device is registered, an Acturis-signed certificate is issued and sent to the user as part of the registration process. "This allowed for secure communication with TLS 1.2 but more importantly, allowed Acturis to revoke a certificate in the event of a security breach for that specific device or to disable all communication via the certificate endpoint."

With the security requirements completed and development for 1.0 coming to a close, the team looked at 1.1 to get it ready for live pilot in June of 2018. The amount of work received was intimidating for the team; consisting of only five developers and one QA analyst, and four business analysts on the Acturis side. Though small, the team created a simple screen generator to generate the basic screens, but 70% of the total screens were custom-made.

"To speed up development, minimise regression and improve consistency, we ended up employing a few additional techniques" says Terblanche. One such technique was the concept of shared screens, where a screen with its business code can be shared on all contexts we use with a very basic reconfiguration of the code. This significantly increased the productivity and maintainability as it allows the developers to create five functional screens for the effort of one.

Fixing defects also became simpler as they affect all shared contexts with the added bonus of keeping package size down to under 50mb.

DELIVERY

With development beginning 2017, the first commit was recorded in February and 16 months later in June 2018, the Acturis Mobile application went to pilot with its first Android users, with iOS following in July.

RESULTS

"Running on Android and iOS, with a similar look and feel, the application is rich in features and has more than 350 business screens ranging from RFQ, quotes, claims, complaints and client fees," explains Terblanche. Additional features include biometric support for easy login, attachments via camera or file browser, as well as SMS, email and phone integration.

To keep the application fast and responsive, the team employs caching strategies and only make calls when needed.

Since the successful pilot, the app has been steadily rolled out to more clients and the team delivered their first major upgrade in September 2018, adding more key features and functional enhancements.

RECEPTION

The Acturis Mobile app has been well received by the pilot users and Acturis is confident that it will be key in winning new business and building user numbers in the future. "We plan to make the mobile application available to all of its users by the end of 2018" states Gillard.

The following quotes from Acturis pilot users show the benefits the app can make to their business and the positive reception it has received:

"In London, 3 client calls progressed with Acturis access which would not have been possible without the app. So far, excellent and will be a real advantage to execs"

"Clear, easy to use, rich in functionality"

"Execs can already see many situations where it will come in useful."

"Love it"

Louis Terblanche & James Gillard

BBD ACTURIS TEAM   **ACTURIS PRODUCT MANAGER**

Challenge
ACCEPTED
EDDIE LOSES BIG TO WIN IT ALL

What do you do when your CEO and CFO dare you to lose 20kg in six months? You say "challenge accepted" of course!

After a couple of beers during a team lunch earlier this year, Peter and Gus were chatting to Eddie about his less-than-healthy KFC obsession (and general questionable eating habits). So a bet was made – Eddie had six months to reach his target weight of 82kg.

This weight-loss journey came with obstacles, including a cold winter, also known to many as "comfort food season". And if losing weight wasn't difficult enough, his challengers decided to add in temptations of their own by delivering his favourite doughnuts to Eddie and his team. He remained determined and opted for healthy Woolies carrots instead.

Fast forward six months and it was weigh-in day at the BBD Joburg office. Eddie, along with an entire team of groupies, were welcomed with celebratory KFC and those infamous Woolies carrots. It was a clear victory for Eddie, after he overshot his target and lost a whopping total of 23kg.

And the grand prize? A brand-new Apple Watch to match his new healthy lifestyle. But don't worry – he also had consolation prizes for the challengers, or as Eddie likes to call it – the Idols Wooden Mic prize.

What's next for Eddie? Rumour has it he's now been challenged by Kevin to run the Comrades, and what's a mere 90km between colleagues?

"You know they (ok, we) say that a team that knyps together, stays together"

Absa-lutely Awesome

Want to know the secret of turning a bunch of strangers into fast friends? Put them all into confined shuttles and add some of the magic liquid ingredient.

So as not to miss too much work, and make the most of the time we had, the Absa team headed off bright and early on a Sunday morning for our teambuild at Sun City.

With as fast a growing team as ours, seeing faces you know hop onto the shuttle was a relief, combined with the surprise at how many people you never knew were on your team. It was no surprise that as we neared Sun City, there was a rising need for a bathroom break. You know they (ok, we) say that a team that **KNYPS** together stays together!

Our first stop at Sun City was the Brew Monkey for some delicious pizzas and a variety of craft beers, with Lizande ordering the first mojito of the trip.

Well-fed and all checked in, we split up into the activities we most wanted to do. From golfing and gambling to walking, swimming or a little spa time, the cool weather didn't stop us. Nolitha faced her fear and braved the Valley of the Waves with a *moerse* smile and hardly any tears. Terence meanwhile led swimmers through mysterious

pathways behind magical waterfalls, where Telisha came to terms with a few nasty eight-legged bugs.

After a full day of bonding, we no longer only clung to those we knew and our exuberantly lethargic group arrived at Calisto's for dinner, where we sat and chatted with anyone and everyone about absolutely everything. The party continued back at the hotel until the early hours of the morning.

Yet all good things must come to an end and breakfast was a bittersweet affair, even for those not suffering a hangover.

During the almost melancholy trip home, I wondered at the reason for bonding with people I don't directly work with. As a BBD newbie, the culture is still wild and wonderful to experience. I realised that BBD really does have a diverse culture with people from all backgrounds, ages, skill sets and experience. Without these teambuilds, that diversity wouldn't spread. I now have a much better grasp on who knows what in BBD, who can help me and who I can help. I even made a few new friends and can literally not wait for the next BBD event!

Thank you to my team for all the memories we made and to BBD for giving us this opportunity to bond.

Suné de Bruin
BBD ABSA TEAM

FIVE

STEPS TO **BECOMING** A **BUSINESS ANALYST**

We frequently hear of students who want to enter the world of software but don't necessarily want to become developers. I came from a software development background and even thought I would adopt it as a career, but soon came to realise that I have a mind for analysis.

Business analysis is not limited to only one role as there are often multiple paths one can take. So what does a BA actually do? Simply put, BAs analyse the organisation and design of technical systems, business models, processes and strategic business needs.

Anyone who enjoys processes and applies logical thinking can become a BA. Whether you're applying for university courses, looking at changing your career path or even figuring out whether business analysis would be a good fit for you, here are my five steps to becoming a BA:

1

STUDY… NOTHING?

Okay, maybe not nothing – but there isn't a specific degree requirement to becoming a BA. I have a degree in mathematics and wasn't sure what I wanted to do after graduation. If you are studying towards a degree, just ensure that it's in a field that will teach you how to be a logical thinker. Anything from a BCom in informatics to a BSc in engineering can give you a good head start to becoming a BA, but it's definitely not necessary.

2

BRUSH UP ON THAT CODE

Even though coding isn't a requirement in most BA roles, I recommend having basic coding knowledge. Because BAs are generally the go-to person between the enterprise and developers, understanding both the business and IT requirements would be very beneficial. You don't have to be an experienced developer, but ensure you know enough about coding to streamline the developing process.

INVEST IN TRAINING WHEELS

…or just training in general. Whether you're just entering the business analysis field or you want to earn a professional certification, taking BA training courses will help you acquire the advanced skills you need to get ahead. BA training courses cover a wide range of critical job functions, including writing compelling business cases and requirements documents, process mapping best practices, and agile project management.

MASTERING YOUR ZEN

Having good communication skills and being extremely patient are two BA traits I couldn't stress enough. Your daily processes will require a lot of back-and-forth communication with multiple people and usually this requires patience to the max. If you're known as being quite the hot head, being a BA will be a challenging exercise.

UNDERSTAND THE ROLE'S DIVERSITY

Business analysis is diverse. There are multiple different roles, structures and requirements to being a BA. The above points are all dependent on the business requirements and the type of BA role you'll fill. A BA's daily duties can vary greatly, depending on the nature of the current organisation and project. It's important that you find a role that works for you and it doesn't necessarily have to be an analyst position at a software development company.

Alex Sukharuchkin

BBD ABSA TEAM

+ BBD
BLOOD
DRIVES

In 2018 BBD collectively donated **103 pints** of blood, potentially saving **309 lives**

Thank you to all those who donated!

SCAN TO SEE CURRENT **SANBS** BLOOD STOCK LEVELS

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Telecoms sector roundup

2018 in review

- Moved client to microservices on AWS
- Demand for data continues to soar with data revenue growth outstripping that of voice
- Revenue from data growing at a significantly slower rate than the increase in data traffic
- 5G came into the market as an enabler for digital transformation
- Significant investments have continued to be made in IoT/M2M, fibre, e-commerce and big data analytics
- Acceleration of all digital transformation projects
- Trend for service diversification and personalisation across the sector

2018's hurdles

- Decreased use of voice
- Delays in migrating from analogue to digital broadcasting and a lack of available spectrum are negatively impacting mobile companies' ability to expand their offerings
- Decreasing mobile tariffs and termination rates

Our 2018 telecoms sector wins

- Successfully rewrote the MyVodacom app in React Native, allowing for push code updates
- Continued to migrate online platforms onto private cloud platforms
- One of our teams was heavily involved in the launch of a retail app which improved customer experience, with upgrades being able to be completed five times faster in-store
- Built and launched a new React Native app with a cloud back-end within a month
- And at the peak, we scaled our teams to 165 people

Our 2019 goals

- Further upskill our teams with React.js for front-end engineers, with automated testing for manual testers
- Move from private cloud implementations to AWS
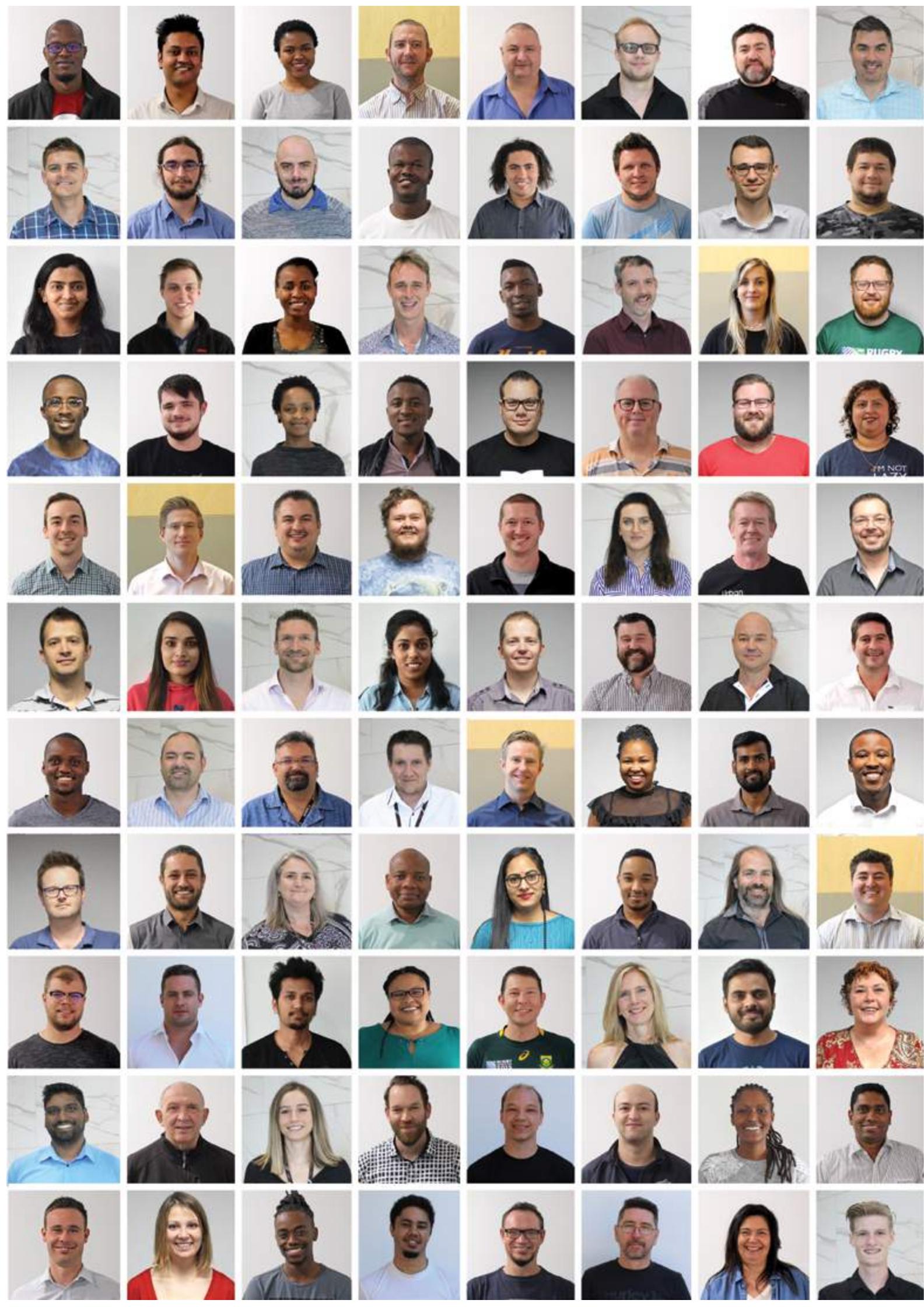
Banking sector roundup

2018 in review
- Digital transformation, data science, distributed ledgers, cloud and open banking are key themes gaining traction in most banks
- We've continued to build knowledge and capacity in these areas
- More active in the industry market place attending and speaking, for the first time, at banking tech conferences
- Kept busy with new and exciting solutions
- We've won and delivered critical project work with industry leaders
- Our teams continue to support critical legacy systems in large organisations, which can be challenging but rewarding work

2018's hurdles
- Many of our banking clients have been occupied with management restructuring and cost-cutting, with local banks having a rough period due to the downturn in the economy
- Clients also simultaneously transforming legacy systems with complex digital transformation projects
- New startup banks are increasing market competition as they're able to run on a lower cost base and deliver new functionality quicker

Our 2018 banking sector wins
- Our teams have performed very well, and we have grown our business with all of our banking clients
- Our work in the online banking space has made a real difference and we're pushing the boundaries on performance, DevOps and quality delivery

Our 2019 goals
- Theme of financial inclusion expected to grow
- With a number of new banks opening in 2019, we will continue to be a part of this digital banking transformation
- Take better advantage of existing frameworks and accelerators to speed up delivery to our clients
- Grow our financial services business outside of South Africa as our local solutions are world class and our tech is globally relevant

RAISING THE
COMMUNITY

Establishing inclusive communities within the ICT sector means raising the bar across the board and developing a thriving network of successful companies. As a leader in the industry we strongly believe that we have a role to play in creating the space for these communities to flourish. It's the purest example of how a rising tide can lift all boats.

Over the past few years we've been a proud supporter of the AWS-JOZI, CocoaHeads Johannesburg, Docker Johannesburg, Jozi-JUG and Jozi.JS meetups. It may seem like a small thing to supply the space, a little beer and some pizza but through this we're allowing people from all over to meet likeminded folk, discuss their passion projects and interesting new technological developments, and maybe learn something new.

AWS-JOZI

The Johannesburg Amazon Web Services User Group meets on the third Monday of each month. This face-to-face user community delves into topics on the technical aspects of AWS feature use and implementation. The speakers use real-world examples to show in their experience what's worked well (and what hasn't).

COCOAHEADS JOHANNESBURG

The CocoaHeads Johannesburg community group gets together on the third Thursday of each month to chat all things Cocoa. A diverse group from the greater-Gauteng area, these meetups delve into the world of iOS development and Server-side Swift, Kitura, Swift and Vapor.

DOCKER JOHANNESBURG

A fun way to meet up with fellow Docker enthusiasts, this user group usually gets together on the first Thursday of each month. As a quickly growing open platform – Docker allows you to build, ship and run applications anywhere – even at the monthly meetup. Their motto: Learn, collaborate and Dockerize!

JOZI.JS

Dedicated to all things JavaScript, this Jozi.JS meetup comes together every third Thursday of the month to cultivate a vibrant eco-system around the language in the South African development environment. Topics for the meetups include frameworks, patterns and anything JavaScript you can think of.

JOZI-JUG

The Jozi JVM User Group, or Jozi-JUG, meets on the last Monday of each month to discuss Java virtual machine language and related technologies. The goals of the group are to use the knowledge and experience, to help build a vital skill-base, grow the Java community and have some fun while they're at it.

Check out ATC's monthly *What's happening* email for dates if you're interested in attending any of these meetups.

MYBROADBAND

Taking you to the cloud and beyond...

> " Attendees were exposed to the latest developments and future plans for telecoms and broadband "

Attendees were exposed to the latest developments and future plans for telecoms and broadband directly from the CEOs and CTOs of leading tech and telecom companies.

The winners for the annual MyBroadband Awards were also announced at the conference – and for the first time ever, the Best Mobile Network Award was shared between two rival service providers, with both MTN and Vodacom taking to the stage to accept the award!

It was an informative day for Tony, Gery, Mike, Rory, Dieter, Clayton, Thabang and marketing – engaging with visitors and explaining who BBD is for those who weren't familiar with the brand. A variety of questions were directed BBD's way, ranging from cloud solutions to how does one get to work for BBD.

MTN and Vodacom had interactive VR games for people to play, showcasing 5G, while Liquid Telecom kept visitors coming back for milkshakes and coffee cones.

Gerian Miller
BBD MARKETING TEAM

❮DRIVING INNOVATION
THROUGH PROGRESSIVE JAVA ARCHITECTURE ❯
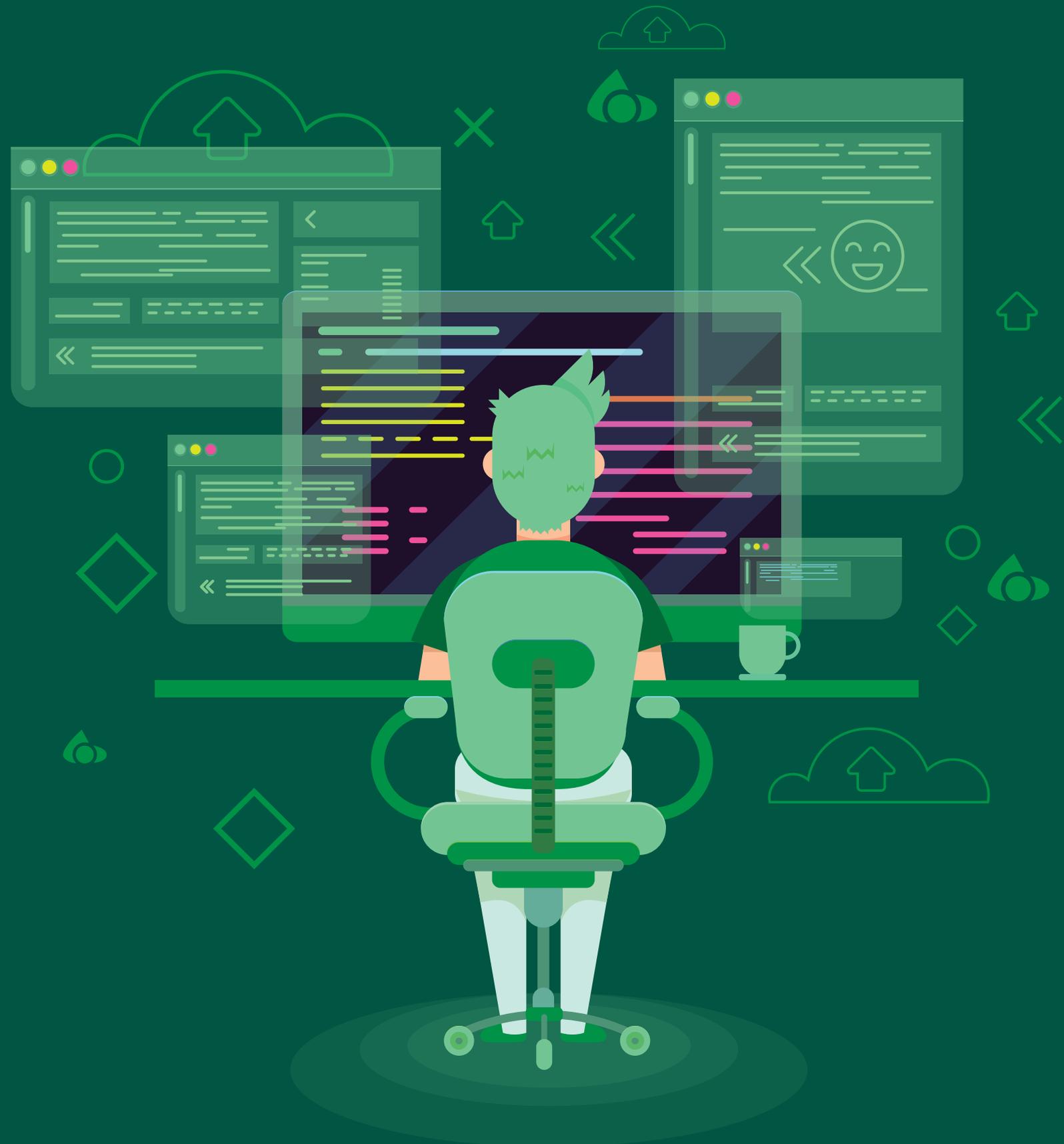
It's seldom that you're able to bring something fresh to a 30-year relationship and have both partners equally content with the outcome. But that's exactly what BBD was able to achieve with a new Java development framework for one of our long-time clients in the fast-paced banking sector.

We not only developed a standardised middleware Java layer - with apps that make use of functionality already existing within the business, but also created a single way for the client to consume very complex functions.

For this incubator project our team successfully adapted the lessons learnt from previous ingenious projects, and now have two further business clusters within the bank wanting to make use of the framework for their own projects.

BBD's Java framework came about after various instances of Java could be found across the client landscape, with no instance of baseline standards. This inconsistent range of Java versions and development patterns posed a challenge for the client in maintaining their code base. As a hybrid team, we were tasked with investigating options within the open source community, to build a Java development framework that would expedite the development of applications by reusing functionality.

The framework was based on the core functionalities that every service would require to ensure consistent delivery across different projects, using the same standards and patterns, all leading to predictable outcomes.

A year after the start of the project, we delivered the first standardised version, to the delight of the client. The capabilities included an initial project template with easy new project creation provided by customer interface customisation, code generators with naming conventions, a centralised code-driven build-and-deploy

pipeline plus static code analysis and code coverage tests, and a host of other utilities and components that developers can use.

The components are either default or optional and include those for security, business auditing, auditing of incoming and outgoing requests, implicit logging, exception identification, mapping and handling, and web and application caching and configuration management. Other components include integration test coverage with test data loading and dependent service wire-mocking, generated sequence and class dependency diagrams from integration testing, developer documentation publishing to web, and user presentation documentation generation to web.

All developer tools were set up to ensure development independence, including the use of Docker to provide dependency services, which allows the developers to build and test services faster. The base architecture was formed as an amalgam of micro-services and traditional application servers, allowing for services to be deployed in either environment.

We also provided an array of reference examples for the developer community, showing how to use the components. These help create an example for each standard or capability and allows for functional and load testing.

I believe true innovation comes from a blend of experience, knowledge and ingenuity. We were able to improve our effectiveness as a hybrid team by creating leading-edge architecture that caters to the client's environment while tackling challenges head-on and retaining accountability for the decisions they made. This turned out to be a winning combination for BBD's first continuous delivery team.

David Wilson

BBD NEDBANK TEAM

As the shuttle door closed ...

… a loud popping sound could be heard from the back of the vehicle. Had we blown a tyre already? No, it was luckily just a champagne breakfast – the breakfast of champions. This, the comical games and blasted music set the theme for our two-hour journey to Limpopo.

After much laughter and banter in the shuttle, we arrived at Monate Game Lodge – a tranquil setting where nature crawls past your door and the buzz of the city fades away. Without wasting any of our time, we checked into our rooms and prepared for the adrenaline packed experience of clay pigeon shooting.

With a nervous tension in the air, we each stepped up to the plate to take our turn and test our accuracy and skill. Some of us had clearly been living double lives as highly trained assassins, while others would be of no use to the country should compulsory military service ever be reinstated.

With no clay pigeons left in sight, we returned to the lodge and were welcomed to a feast of a picnic where we lay beneath the trees and ate to our heart's content. As the tunes and our thirst returned, we danced on the blankets and got ready for the upcoming game drive.

This game drive was no traditional game drive; it turned into more of a game… a drinking game with points awarded for spotting animals and any relevant animal knowledge. We saw plenty and ended off with sundowners overlooking hippos and crocodiles at their watering hole.

The next stop of our adventure was the natural cave which was the setting of our candle-lit traditional South African potjie dinner. Throw in some good wine and you have night filled with karaoke and plenty of laughs – mostly at each other's terrible singing.

Here's to surviving another action-packed Marketing and Billing teambuild!

Kiara Smith & James Vodden
BBD MARKETING TEAM

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ĪLION
Data Insights Profit

THE PERFECT
PARTNERSHIP
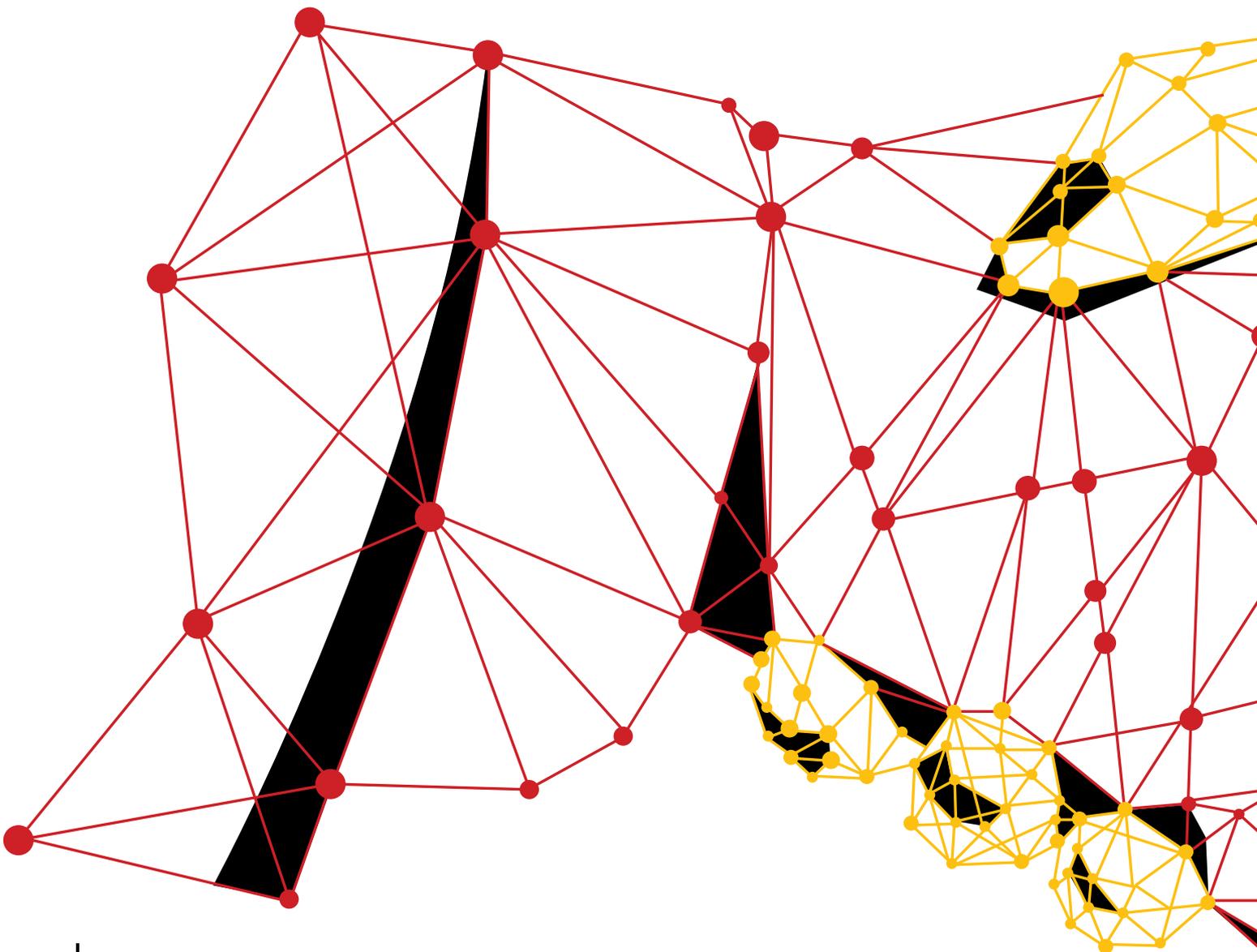
BBD partners with Ilion, a South African financial data modelling company

Founded in 2018, Ilion integrates data with financial risk-adjusted performance, to deliver solutions that optimise the sustainable performance of clients. Their offerings include financial and risk analysis, data management and advanced data analytics, the enablement of financial risk forecasting, balance sheet management and the optimisation of financial risk strategy.

BBD's origins as a specialist software development business has ensured that data design and analysis capabilities have always been a fundamental part of our skillset. Partnering with Ilion will enable us to create a specialised group, incorporating specialised data science and financial risk competencies, to enable BBD to provide further value to our clients.

This partnership will offer Ilion the opportunity to transform its models and other intellectual property into executable secure applications, that can be implemented in production with clients.

Beyers Rossouw, Ilion director, explains: "BBD will provide Ilion with the opportunity to transform its models and other intellectual property into executable and secure applications that can be implemented in production with clients."

According to Rossouw, Ilion's ability to surface financial insights based on data analysis is a key differentiator for the business. "We have the ability to integrate our offerings into live solutions, that will enable in-time strategic decision-making."

With companies plagued by uncertainty and rising risk levels making it challenging to determine the future, having access to data insights to drive profits is key. "The variables that can impact success or failure are numerous and no longer as easy to predict. Strategy has to align to the new fluid nature of the environments that organisations' operate in, while being flexible enough to change and adapt," says Rossouw.

BBD Group's accelerated partnerships over the last two years has enabled us to leverage our footprint and extend our expertise, offering clients world-class technology solutions.

Peter Searle

BBD CEO
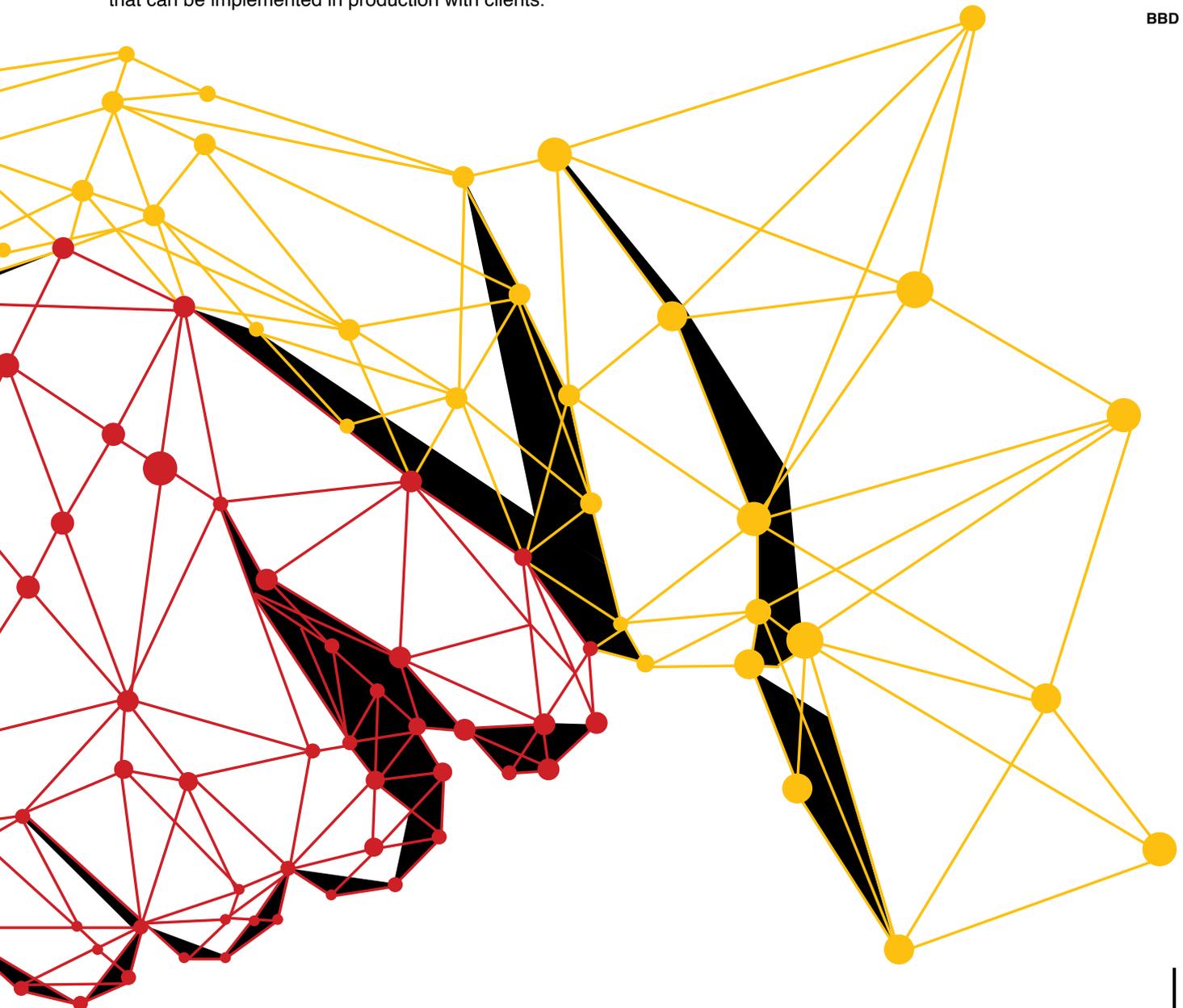
Pool Tournament

All cued up

BBD's annual pool tournament is an opportunity for our in-house fanatics to put their skills to the test to win a cash prize, trophy and most importantly – bragging rights as pool champion.

At this year's tournament, 20 challengers faced off over two months. The BBD Killarney games room was rife with tension on Friday afternoons as crowds gathered to watch the competition unfold.

After many rounds of play, Jason and Clayton went head-to-head, with Jason ultimately dominating the finals and retaining his title from the last tournament.

Thank you to the BBD pool committee for running and sponsoring the tournament. Well played to all of the superb challengers!

Watch out for more details on the 2019 pool tournament.

9

WAYS TO **NOT** DO **MICROSERVICES**

Just about everyone is jumping on the **microservices bandwagon** for more than the **scalability** and **performance** they offer. While there seems to be no end to the best practice articles, here is a list of things **not** to do with microservices.

1 DON'T TEST

Testing is a great way to make sure that everything is as close to expected as possible, and depending on the type of test, it's also a great way to be notified of anything that has broken. This cuts down the number of hours you'd spend trying to find the source of the issue. If your code works, is good, and follows business rules to the letter – that's wonderful. It should then be no problem to write tests to prove that, while showing the next person what the actual inputs and outputs should be. Not testing, especially in microservices, can create distrust in whether or not a service actually works and can lead to duplicate code in unrelated projects.

2 DON'T PEER REVIEW

The purpose of peer reviews isn't to assess or discredit your technical abilities, or even to nit-pick over your use of indention, but rather to help catch that one 'if' statement misplaced in an energy drink infused panic. Someone looking at it with fresh eyes may also be able to spot redundant steps or other possible performance impediments. Not doing peer reviews because "it takes too long" isn't a good enough excuse. As the saying goes: with enough eyeballs, all bugs are shallow.

3 TO DOS

Code littered with to dos and other apologetic comments may be helpful while you're busy working on something, but they have no place in source control. This is why we have project management software! Having a '//TO DO//' is a great way to let everyone know something isn't working optimally. Creating a ticket is quick and provides a much clearer view than a comment seven classes deep of what still needs to happen.

4 ADD BREAKING CHANGES WITHOUT VERSIONING

Sometimes you get an awesome idea and the best way to implement it is to change what a specific endpoint expects and produces. Without telling anyone. You then let it build and get it to production as soon as possible because everyone needs to see your brand-new way of doing things. It's not your fault if their stuff breaks, they should have tested and made sure they're notified when something like that happens.

Unfortunately, once something consumes a specific endpoint, you are forever obligated to not change the contract. The consumer must always be kept in mind, and because we aren't always aware of who that is; endpoints, packages, APIs and everything else has to be versioned so consumers can make the transition to newer features and fixes – keeping the system in a working state.

5 COPY PASTE FROM THE MONOLITH

While not a bad idea to reference the code of the project you are breaking into smaller pieces, it might be a bad idea to duplicate the code somewhere else. Copying the design effectively means rebuilding the monolith to run in a different stack.

Take the time to figure out which classes and domains you really need to use. Microservices give you an opportunity to simplify and consolidate.

6 REWRITE WITH NEW TECH (BECAUSE THE OLD CODE SUCKS)

As tempting as it may be, scrapping a project is not always the way to go – especially if only to rewrite with new tech. Rewriting may be the most effective way to end up exactly where you started, even if the previous code is a bit too "spaghetti" or is a giant ball of mud. Don't rewrite unless you have a really good reason to do so (and on average, people don't).

Consider the following:
- The old project probably does work, and will continue working (even if poorly) the rewrite currently doesn't
- The old project has bugfixes that virtually everyone has forgotten about. You'd probably encounter these again along with a slew of new ones related to the new tech
- There is no guarantee that the new project won't become a hazardous landscape even worse than the old project

If the old project is still using tapes for storage, sure, it's probably time to think about an upgrade. But in general, the people signing the cheques want projects that work towards their goals, and newness isn't usually a KPI.

7 HARDCODE CREDENTIALS AND CONFIGURATION

It sometimes seems best to add the configuration directly into the code, as it minimises the odds of someone tampering with it without you noticing. That is, until the day comes when you tamper with the configuration without rebuilding or redeploying.

In reality, baked-in configuration makes testing, fallbacks, failovers, scripting and automation harder. In worse-case scenarios, it can create bottlenecks and delay delivery while unintentionally breaking existing consumers. This is further aggravated if the original author is no longer able to work on the project while someone unfamiliar with the codebase has to look for the place to make seemingly trivial changes.

8 EXPOSE EVERYTHING

This ties in with the hardcoding credentials. Do you really want to update your service in possibly complicated ways whenever something changes? Chances are, even if you're running complicated queries, you just need an interface that you can trust to bring data back in a specific format, and push data somewhere else where you can trust that it will get persisted. Having these services external to your own project allows you to focus on your business logic rather than debugging pooling issues. Abstraction and loosely coupling works on pretty much all levels.

9 DEATH BY LOGGING

While it doesn't appear to affect the maintainability of the code, logging every object every step of the way is a sure way to get logs that cannot be used by anyone, including yourself. While it certainly is a challenge, logging the least amount possible, but with enough information on where to look next might be the most effective path. This is especially true in environments where your application is only one of many that are constantly pushing out data via logs. If you can't easily find your way around logs and need to invoke a remote debugger to trace something, you may just as well never have logged at all.

Stephan Pieterse
BBD VSP TEAM

BBD Year-End
2018

We were transported to far away Arabian nights for the year-end functions which took place in Johannesburg, Cape Town and India.

Fire eating jugglers, belly dancers, gold statues and singers entertained the Arabian princes and princesses ... while a doughnut wall and ice cream bar were great for when the late night munchies set in after hitting the dance floor!
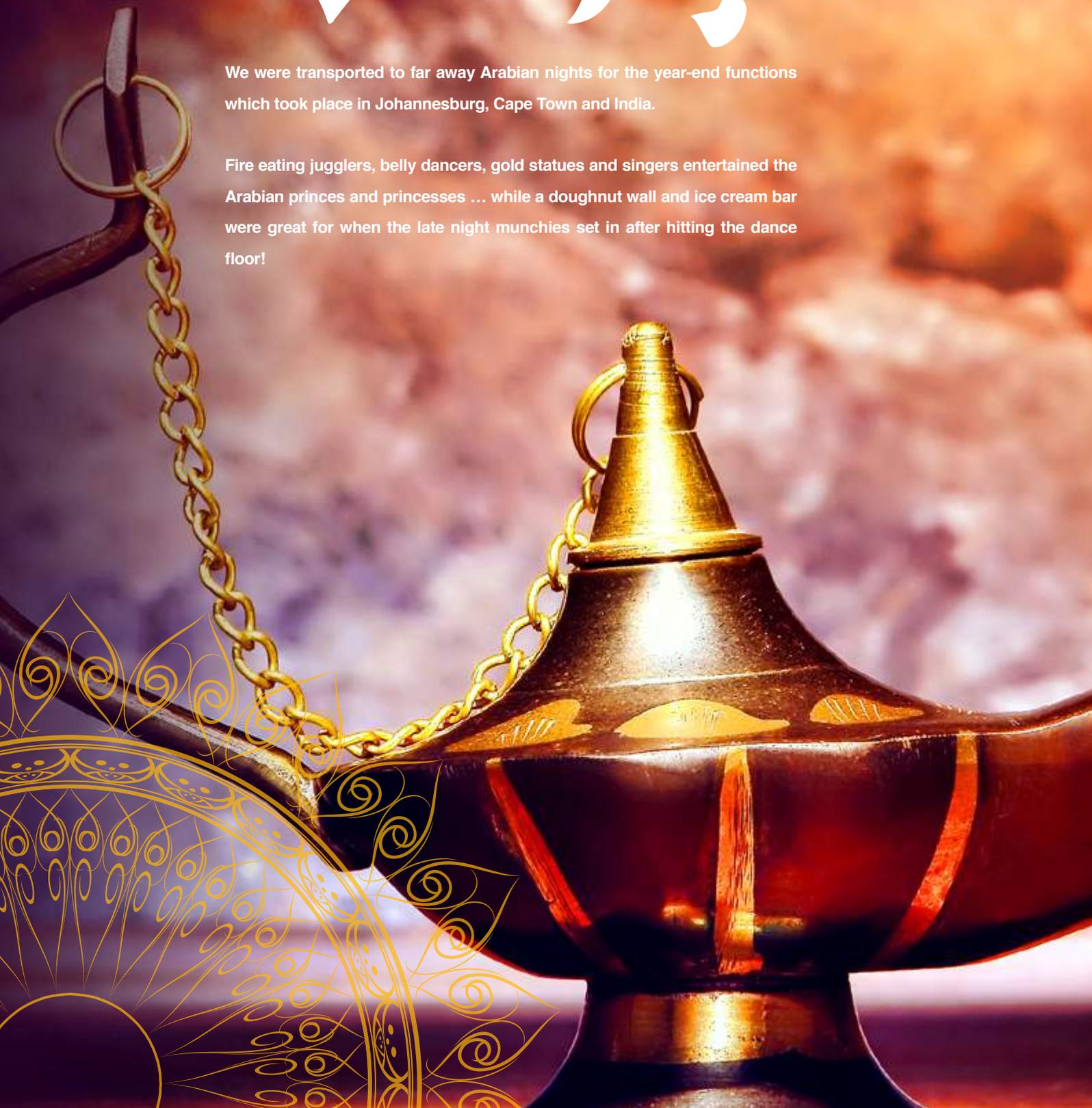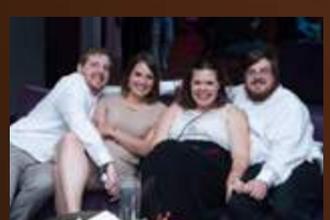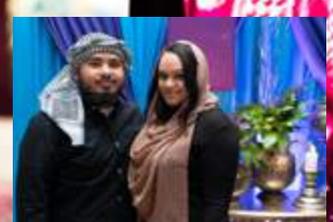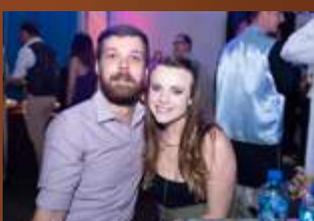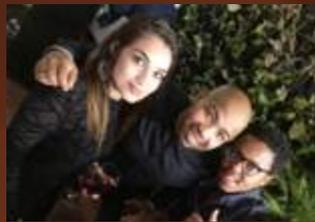
bbd india adventure
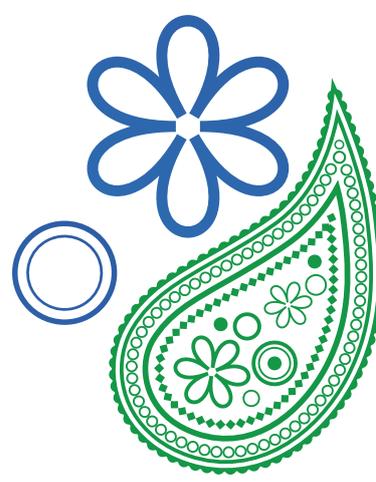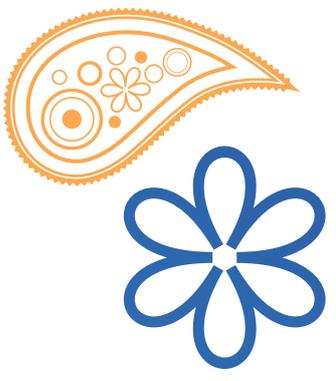
FEELING LIKE KIDS AGAIN...

In today's fast-moving, high-pressure tech environment it's important to take a break.

The India team recently managed to escape Pune for a fun-filled day at the Della Adventure Park in Lonavala, India's largest extreme adventure park. Some of the thrilling activities we participated in ranged from tandem cycling to horseback riding, abseiling and … wait for it … roller zorbing (running around in gigantic inflatable balls, for those of you wondering what this is). We all felt like kids again!

What added to the already adventurous day was being surrounded by beautiful fog-covered mountains. This was an amazing scenic experience for all of us and exceeded our expectations.

Thank you to the entire team who makes working together a total adventure!

Soma Bhadoria

BBD VSP TEAM
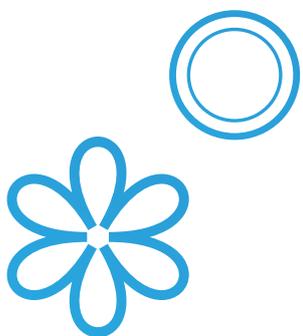
TAKING BLOCKCHAIN BEYOND BITCOIN WITH
SMART CONTRACTS

"Smart contracts enhance the simple cryptocurrency ledger by allowing programming logic to be placed inside the transaction."

The first explanation any beginner learning about cryptocurrencies is given is that with traditional banking only your bank has access to the ledger of transactions on your account. A single point of trust and a single point of failure.

With cryptocurrencies the ledger is distributed among a number of nodes, each storing a mathematically verified copy of the ledger. There is no need to trust a single source for the truth; you're free to query any node for the current state of an account.

This works really well as a system to keep track of cryptocurrencies, and while its trustworthiness and reliability has undoubtably been proven over time - does the blockchain system allow us to implement products other than cryptocurrencies?

How about financial derivatives? The biggest share of the financial trading market is not made up of simple financial transactions such as currency or share trading but rather so-called derivative products. The simplest of these is called a Future. It's a contract where one party agrees to buy something in the future at an agreed price.

Futures are smart contracts that are implemented using blockchain technology. In the cryptocurrency system, the transaction being recorded is as simple as it could be; take money out of one account and put it into another account.

Smart contracts enhance the simple cryptocurrency ledger by allowing programming logic to be placed inside the transaction. For example, if the contract date has been reached and the price of the commodity is greater than the contract amount, then the ledger knows to transfer the difference to the seller of the Future, else the balance to the buyer.

Or how about using a smart contract to pay the builder of your house? A builder generally requires 50% on day one of construction, 30% when the roof is up and 20% on completion. But with smart contracts, penalties can be built into the contract. If the house is one month overdue then 10% is taken off, if the house is three months overdue a further 10% is deducted.

All of these rules can be encoded and executed by a smart contract stored in a blockchain system. Although the end goal is for there to be no real-world interventions to confirm the various stages of the contracts, we are not at a point where this is something the blockchain is able to solve… yet.

Donald Massyn
BBD DISCB TEAM

THE FUTURE
LOOKS CLOUDY

Will we really only have three clouds?

Currently there are three large global cloud solution providers: Amazon Web Services, Microsoft Azure and Google Cloud.

Assuming two more providers invest heavily into this market, we may have five large cloud providers.

This makes me think of ex IBM president, Thomas Watson, who famously said 'I think there is a world market for maybe five computers', referring to how many mainframes would be required to cater for the world's processing needs back in the 1940s.

IDC statistics quoted in a recent Forbes article indicate how by 2020, cloud spend will be nearly 60% of IT infrastructure and between 60-70% of all software, services and technology spend. CIOs need to be considering how to remain competitive in the ever-changing tech environment through cloud computing.

Are the clouds of today not just the new mainframe and do we not properly understand what the computing demand of the future will be?

For far too long now anyone working in a business has been told to adopt the cloud. The truth is that there is not just one cloud and that as a business, you

will not drop your own infrastructure. Neither will you adopt just one cloud provider, you will utilise more than one cloud provider.

Currently, the big three cloud providers are extremely eager for businesses to use what they have built. They want your data and your dedication. However, it is highly likely that businesses are already invested in more than one cloud provider. Let's look at an example - imagine you are the CIO for a large business. You might already have a small digitisation project running in AWS, that scales well when there are spikes in user numbers. However, to get away from your on-premise email server you chose to move to Office 365.

Your organisation is now a multi-cloud hybrid business infrastructure of the future, with you having invested in two cloud providers, with no clear path to move away from your existing on-prem infrastructure. Coupled with this is the fact that you probably forgot to read the small print that explains how 'cloud can be more expensive than on premise deployments, if you use the equipment all day and every day'. Does this example ring true with you?

Right now, there are plenty of infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS) and software-as-service (SaaS) providers, all providing services built on the three big cloud providers. In the future, some of the other larger players may tire of using the big three cloud providers and start to invest in their own infrastructure. This would result in more underlying clouds and more underlying cloud providers. The same is true of the private cloud and the private cloud tools. These are also ripe for improvement.

Important to note, is how Forbes predicts that by 2020 83% of enterprise workloads will be in the cloud, with 41% of these on public cloud platforms and 22% running on hybrid cloud platforms.

While cloud infrastructure is currently being provided for by the three large players, the future is definitely "cloudy", with a second wave of cloud providers already making headway. These include key players such as Alibaba, IBM and Oracle. Each are well positioned to challenge the current three. This will make for even more complex environments for businesses to manage.

Keep in mind the cloud is not going to be your answer to simplifying your infrastructure, it is the start of a really complex multi-cloud infrastructure environment for the business of the future.

Peter Scheffel
BBD CTO

we think code_

HACKERRANK

This September we recognised the top three highest achieving students from our WeThinkCode_ hackerrank assessment.

We strongly believe in doing our part to address the IT skills gap in South Africa and work alongside organisations such as WTC to grow the local skill pools to benefit not only the sector, but families and communities as well.

Our four-month internship programme starts with an intensive four-week bootcamp where the interns are further exposed to Java, C#, C++, Agile and Database. From there, they are assigned to a project where they can gain real-life experience. During the programme, the interns work on multiple projects to find the path that best suits them and are mentored in that direction, all while seeing what's possible for their careers at BBD.

A hackerrank assessment is used to benchmark the students before and after the internship to track their growth and performance.

Recognising young talent, mentoring and nurturing it while showing the opportunities that exist within BBD are paramount to successfully expanding the IT skills pool in South Africa.

Congratulations to our top three performers: Tresor, Mohamed and Gladwin!

GRADUATION

Congratulations to Robert, a BBD graduate, who took the top honours at the WTC 2018 graduation ceremony. This was the first graduating class, having started when WTC was established in 2016.

Russell, Chris and Thabang were at the event to congratulate students and share how BBD is passionate about partnering with tuition-free programmes like WTC, who are educating the next generation of software engineers.

BBD has been involved with WTC since inception and have set numerous graduates on an exciting career path.

Gus Pringle, BBD financial director, explains how BBD wants to work with problem-solvers who are mad about tech. "There are many South Africans who have the potential but not the means. Working with disruptive programmes such as WTC has enabled BBD to uncover incredible minds and employ these graduates – unleashing their potential at BBD."

HERITAGE DAY COMPETITION

This year we asked the WTC students to get creative and show off their skills in our #CodeMyHeritage Twitter competition in honour of Heritage Day. The challenge was to code something that showcased their tech evolution and heritage – something uniquely them.

The students did not disappoint! We had amazing entries that spoke to each student's individual journey into the tech world, highlighting what they are proud of.

Chris announced the five most creative posts across Johannesburg and Cape Town and the winners walked away with some awesome prizes with love from BBD.

A big congratulations to all those who entered and especially to the winners: Rutendo, Philip, Simbiso, Hilton and Asa.

TO THE EXTREME...

As spring arrived, so did our annual MSDF team build. This year we decided to have an extreme adventure day – and boy, it came with a few mishaps! From rowdy rivers to slippery slopes, it put our team skills to the test.

Follow our comic strip below to catch a glimpse of the day's adventures!

Ilana Schoeman

BBD MSDF TEAM
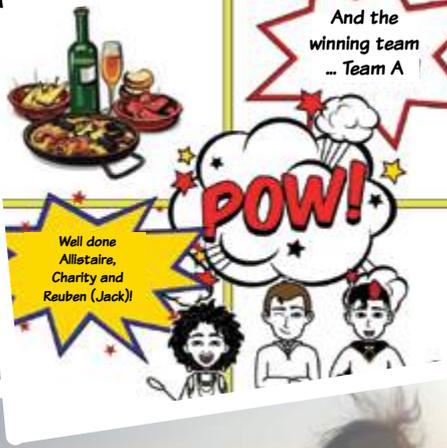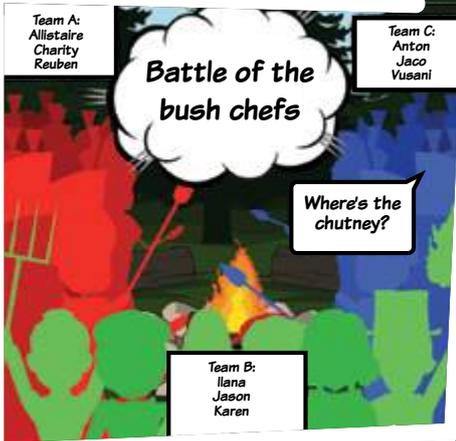
"All the women there were driven and inspiring individuals who presented fantastic solutions."

#GirlCode4Hackathon

In celebration of Women's Month, the August GirlCode Hackathon took place in Johannesburg, Durban and Cape Town. The hackathon was open to women with various levels of technological skills and abilities.

I was thrilled to have joined this year because it encouraged us to learn through collaboration. Small teams of two, three or four crunched to design a website, game, or mobile app to serve as a solution to one of the United Nations Development Programme's Sustainable Development Goals...in under 30 hours.

My teammate Nandi and I created a gamified mobile application titled "Do-Nation". The mobile app was designed to encourage communities to donate to organisations already supporting and working towards these sustainability goals. All money spent on micro-transactions would go towards the player's organisation of choice.

I am extremely proud to say that even though we were the only two-person team, we still managed to impress the judges and placed third overall.

All the women there were driven and inspiring individuals who presented fantastic solutions. It was an unforgettable experience and I'm already looking forward to the 2019 hackathon!

The Android application package (APK) can be downloaded for free from:
https://aimzj.itch.io/do-nation.

*Aimee Handley*
BBD BURSAR

The soul of Agile

Agile Africa 2018

AGILE AFRICA

DON'T TREAT PEOPLE LIKE MACHINES

I recently had the privilege to attend the annual Agile Africa Conference at the Wanderers Club with fellow BAs, project managers, Scrum masters and Scrum coaches from various industries around South Africa.

Last year's conference focused heavily on Agile processes, procedures and rituals - with Ken Beck (one of the original authors of Extreme Programming) heading up the conference's keynote. This year however the trends have changed from rigid processes to more people-centric.

One of the keynote talks by leading Agile coach and mentor from Canada, Selena Delesie, spoke to that. Her talk touched on how we spend too much time focused on doing better. "Go Faster", "Put more people on the problem", "Reduce costs", "Just get it shipped!" Do any of these sounds familiar?

We excel at firefighting and band aid solutions, yet we do not spend enough time focused on being better. We need leaders to step up, forge a new path to shift culture and demonstrate this by leading through example. Then we need everyone else to follow this new path and step into their own personal leadership.

The most important take away from the conference for me was how if we want to successfully run Agile software development teams, we need to stop treating people like machines. We need to get people to laugh and smile, as this will enable growth and ignite creativity - the keys to success!

Alex Sukharuchkin
BBD ABSA TEAM
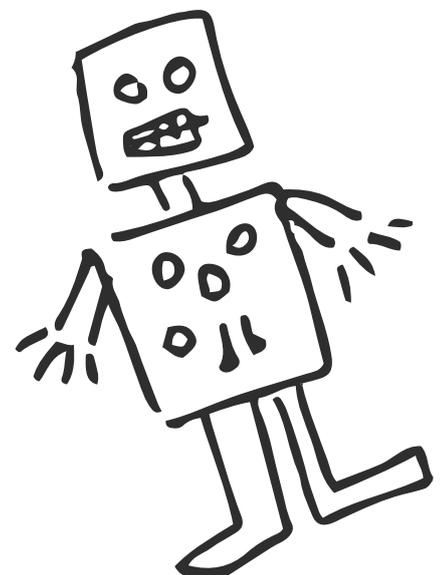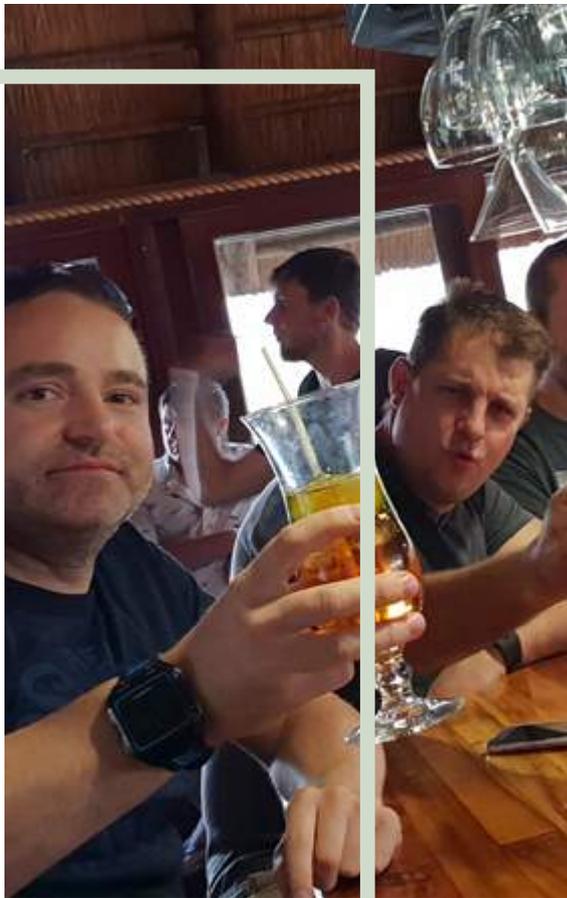
BBD ACTURIS **BUSH BONANZA**

"No doubt, there were stories and memories made."

It was that time of year again, the annual Acturis teambuilding getaway!

Starting with a bit of gravel road fun, we arrived at the stunning Intundla venue, where we were greeted by peace and quiet away from our busy everyday lives in the city. That was, until everyone had arrived and finished breakfast. That's when the festivities started.

Activities included a game drive where we were graced by some buck and giraffes among others. This was complimented with a few rounds of laser war games. No mercy was shown as teams of colleagues snuck around between the chalets, trying to outsmart and take down their opposition. For the ladies, there was a full body massage fit for a queen, a welcome treat after a tough but exciting year.

Cue lunch and more relaxation, we ate our fill and moved on towards the bar. Having drinks and cocktails by the pool while looking out onto the dam proved quite entertaining. There was a bit of fun when some of the guys discovered that rowing can be challenging, and we spotted another company attempting to float a bakkie on the water as part of what we assumed was their own teambuilding event.

We made our way to the boma as dinner was ready to be served, spending the evening eating delicious food under the night sky around a warm bonfire. Spirits were high and laughter plenty as the evening progressed. With custom cocktails, one aptly named "Mangi's What What", to shooters and "strawpedos", there was no lack of entertainment or bonding. Surrounded by good conversation and friendly faces, the night ended with an encroaching thunderstorm aiding a peaceful night's sleep.

As we woke to have breakfast and get ready to depart, despite a few headaches, everyone seemed happy to recall the happenings of the previous day. No doubt, there were stories and memories made.

Cheers! And on to another year of hard work, fun times and no regrets.

Antoinett Henn

BBD ACTURIS TEAM
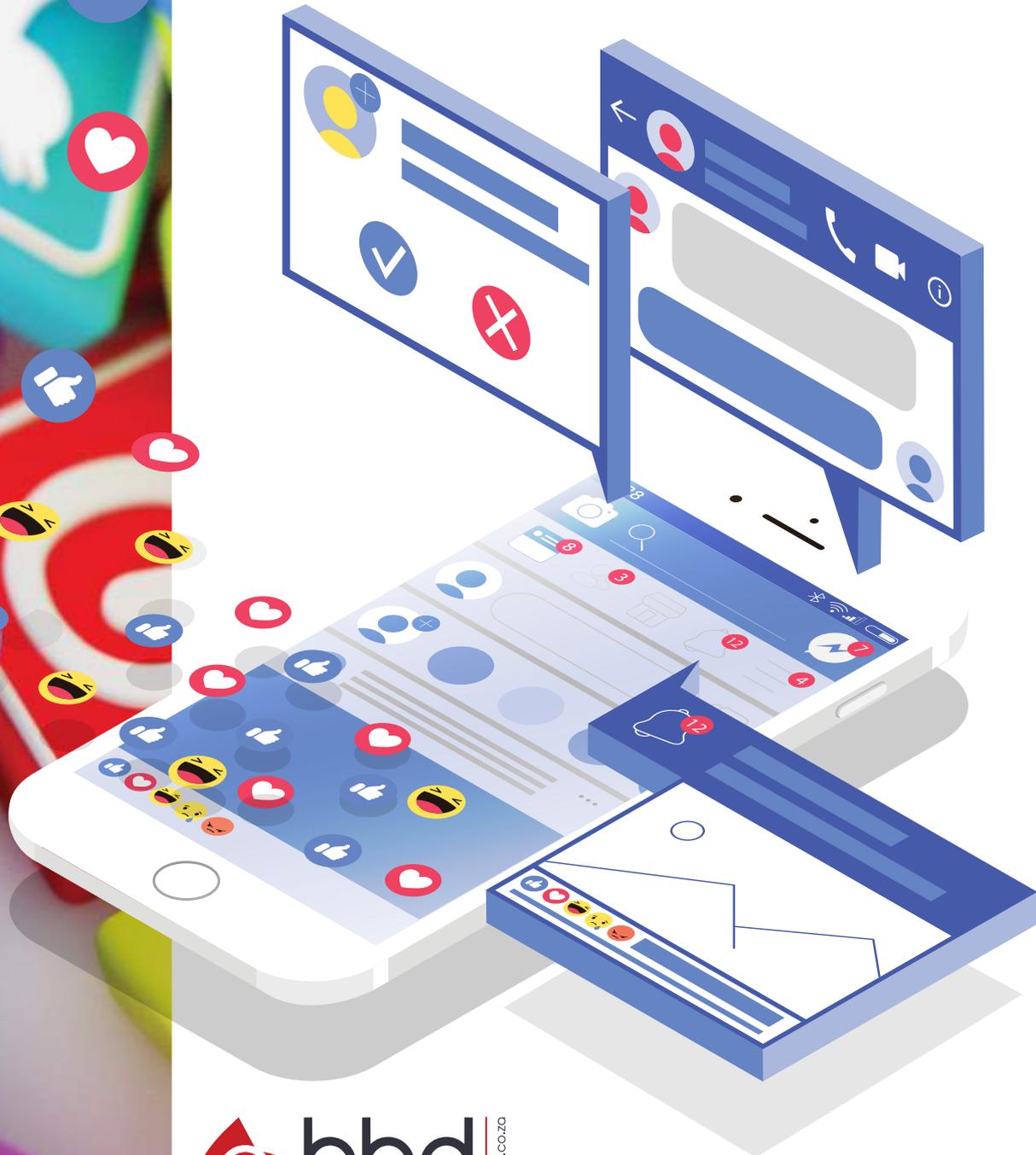
bbd india
Independence Day

15th August 2018 marked **India's 72nd Independence Day**. Our Pune office went into full celebration mode with colourful decorations and traditional Indian treats. **Here's to another year of independence!**

NINE TEAMS.
TEN POTJIES.

WHO WOULD BE THE POTJIEKOS MASTERS?

Early in October, BBD Vodacom team members from all over Gauteng descended on Muldersdrift for two days of fun and socialising.

The main event at the teambuilding was the potjiekos competition and after some coffee, fruit and muffins - the game was on. Team members and ingredients were selected by lucky draw and then the cooking started.

Selecting meats, secret spices and spying made for a neck-on-neck competition that lasted two hours. In the spirit of camaraderie, lots of laughs and conversations were also had. The Glencove chef had the difficult task of judging the best potjie. Well done to team 2 who comprised Bongisa, Christan, Esti, Johan M, Linda, Matthew and Zinzan!

After lunch, people could do what they wanted and this ranged from a spa-treatment to a fly-fishing lesson, with some people quietly stealing away to explore the swimming pools and jacuzzis.

After dinner lots of fake BBD dollars were squandered in casino games. Although some dared to brave the road after a game of Black Jack, most people decided to sleep over at Glencove and enjoyed a breakfast buffet before the journey home.

Thanks to BBD for a great Vodacom team build!

Helen Pinkham
BBD VSP TEAM

FOR THE LOVE OF THE GAME

#4

What's better than having an amazing project team? Having an amazing project team AND sports team! It's been a great year for our BBD action cricket and soccer teams, and they're always keen to add new players. If you'd like to join a team or form one of your own, please chat to Admin or one of the current team members.

Remember to join the **fitness@bbd.co.za** email alias to send and receive updates on all fitness-related events.
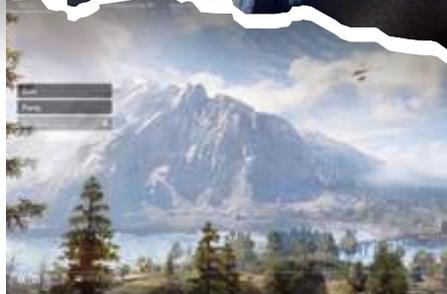
GAME **ON**

RING OF ELYSIUM (ROE)

It seems we have entered the era of endless Battle Royale games. With various versions and clones, it's easy to get a little bit overwhelmed. That's why I'm here to give a little bit of guidance for those of you who have lost interest in the more mainstream titles like PUBG and Fortnite.

The interest and popularity around the genre keeps growing. It's led to a multitude of copies being born, some nothing special and then some having their own unique elements.

Among these is a game called Ring of Elysium. So far, ROE has proved to be a pretty good contender. With a large map covered in snow and an aggressive blizzard called Ymir that's slowly creeping in, you choose a starting point and begin the search for equipment that can help you escape a chilly death.

The twist? There's only one rescue helicopter coming. It only has four spots. You must survive by knocking off other survivors, as you keep moving into the constantly shrinking safe area, as Ymir closes in. Raid surrounding buildings for weapons and medical supplies, steal vehicles to get ahead of the storm. Or if you want a stealthier approach, choose between a snowboard, glider or climbing pick to help you on your way.

If you're lucky enough to survive until the helicopter arrives, you need to decide if you're going to make a run for it to get up the ladder or stay low to pick off the competition. They'll be making that same decision. Either way, there's no mercy for anyone when the spots on the helicopter start filling up.

It's free-to-play on Steam, so go give it a go if you've been curious about the whole Battle Royale genre. You might find you enjoy it!

Antoinette Henn
BBD ACTURIS TEAM

A taste of

INDIA

Indian Shrimp Curry

INGREDIENTS

- 2 tablespoons peanut oil
- ½ sweet onion, minced
- 2 cloves garlic, chopped
- 1 teaspoon ground ginger
- 1 teaspoon ground cumin
- 1½ teaspoons ground turmeric
- 1 teaspoon paprika

- ½ teaspoon red chilli powder
- 1 can chopped tomatoes
- 1 can coconut milk
- 1 teaspoon salt
- 1 pound cooked and peeled shrimp
- 2 tablespoons chopped fresh cilantro

METHOD

1. Heat the oil in a large skillet over medium heat and cook the onion for about 5 minutes until translucent
2. Remove the skillet from the heat and allow it to cool slightly for about 2 minutes
3. Add the garlic, ginger, cumin, turmeric, paprika and ground chilli to the onion and stir over low heat
4. Pour the tomatoes and coconut milk into the skillet and season with salt
5. Cook the mixture at a simmer, stirring occasionally for about 10 minutes
6. Stir the shrimp, fresh cilantro and dried cilantro into the sauce mixture, and cook for another minute before serving

Compliments of BBD India

COCKY CORNER

FIND MARIO'S MUSHROOMS

Sneaky Luigi hid Mario's mushrooms! Help Mario **find the 7 mushrooms** hidden throughout this edition (excluding this page). Accept the challenge and email the page numbers of where they are hidden to **marketing@bbd.co.za** by **28 Feb 2019**

SPOT THE DIFFERENCE

Do you have eagle eyes?
Find all **10 differences** in the pictures below:
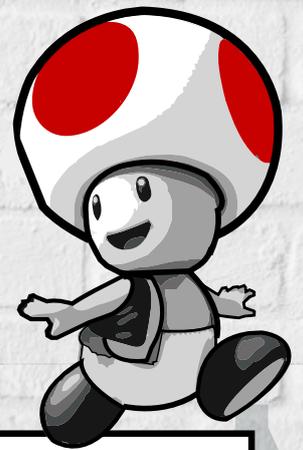
SUDOKU

Fill in the missing numbers on the grid so every **horizontal row, every vertical column and every 3x3 square** contains the numbers 1 to 9 without omitting or repeating any.

					9	4		3
3					7	5		
6		7	4	5			1	
4		1	7	6			8	9
					4		3	1
					8			
	7		8	4	6		9	
9	1		5		2			
	6	4	3			2		

ANAGRAM

Use the letters in the grid to create as many words as possible containing **four letters or more**. Each word **must contain the letter in the light grey block** in the middle, and may contain any of the other letters only once. No proper nouns, foreign words or abbreviations.

I	T	N
G	**A**	L
S	T	R

WORD SEARCH

AIR HOCKEY
ARCADE
BOWLING
DONKEY KONG

MORTAL KOMBAT
PACMAN
PINBALL
SONIC

SPACE INVADERS
SUPER MARIO
TEKKEN
TETRIS

```
S P A A E G H N H O O W T Z S
X R X I R D E F I Q W P A E I
P R E F R K A R K A I B B Y R
P R W D K H A C V O O W M F T
M U D E A M O C R W B R O U E
F T T T R V H C L A S L K P T
M C W E O P N I K O C E L I X
H D P N W S N I K E N T A N Q
V U R C N G U G E B Y N T B G
S T L N A M C A P C E F R A I
D O N K E Y K O N G A P O L C
L X Z X O F L Q Z D J P M L G
P L K G G R F V A E P C S B Q
R Q H Q V E B N Z R S O N I C
A P G P J N T J I Y S E X H T
```

CRYPTOGRAM

One letter stands for another. Double letters, apostrophes, the length and formation of the words are hints. Our hint is: **SRVI NL = GAME ON**

UEDY VNXI DEVI DN ILONA ANFX

KRWNFXEDI SRVIG DYEG KIGDEWI

GIRGNL, CIWICCELS FB GYNFCH TI IRGA!

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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