

bdbulletin

DECEMBER EDITION 2019



BBD's **35th** birthday

Grad trips

Supercharged for
success

Top Women Awards

Medicine ATMs

Esc@pe 2019



04

Web standard and other Chromium-based browsers. Joe Belfiore, vice-president for Wind

35 years of throwing epic parties. Check out the pics here!

24



34

CHEEEEEERS!!!!

IT'S FRIDAY!!!

Work hard, play harder. Friday drinks at the office

08



Check out BBD Holdings' group structure



Celebrating the incredible women we have in our industry

36

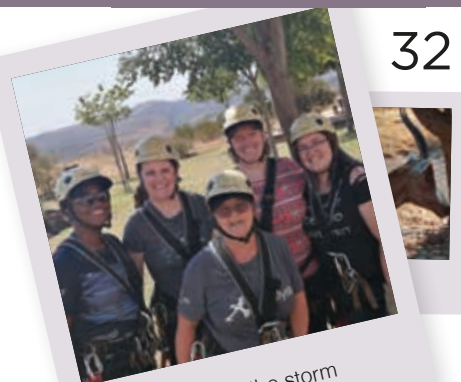


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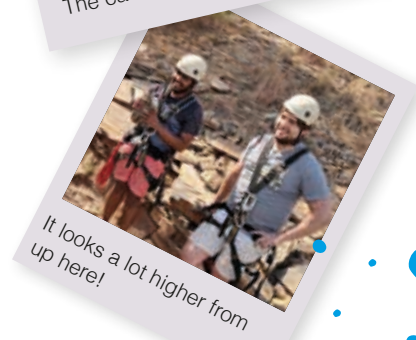
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The calm before the storm



It looks a lot higher from up here!

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Dodging disasters with secure cloud environments

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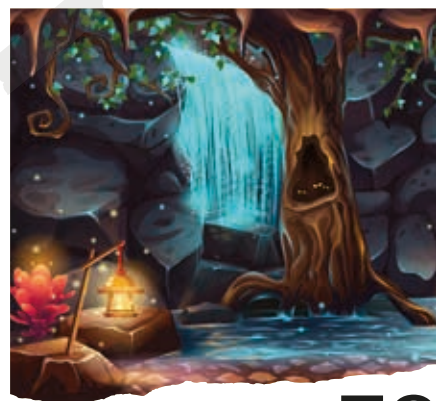
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60

From game making tips to killer client presentation delivery, **Esc@pe 2019** took tech insights and learning to new heights!

For everyday health issues, just **head out to your garden**



Are you the **smartest BBDer** around? Let's find out!

78

NOTE FROM THE ED

7'6"

7'0"

6'6"

6'0"



Somehow we've reached the end of another year, one packed full of interesting moments, stories to celebrate and innovative solutions into diverse sectors. While South Africa's still giddy from winning the Rugby World Cup, the world has fallen in love with our FAF-tastic players, it has been a year of technical advancements and exhilarating discoveries.

In our own sphere, 2019 saw BBD's 35th birthday with parties to match the achievement (check out all the pics from page 24) and our grad trips to India and Cape Town were bigger and better than ever (page 49). We had the privilege to sponsor the Top Woman in ICT at the 16th annual Standard Bank Top Women Awards and our teams have helped deliver much needed medicine ATMs and Collect & Go Smart Lockers into Africa (read more on page 13).

In the tech world, folding phones are back in style and officially on their way while electric motorcycles are now a thing. Disney launched its much-anticipated streaming services and AI may soon be reading our moods from our faces. Oh, and our very own Mike Geyser is a core developer on the Web Almanac, a HTTP Archive project which comprehensively reports on the state of the web! We are still wondering when that AWS data centre will land though...

It's the end of a decade, and we can't wait to see what the next one holds for us.

Katie Cubitt
BBD MARKETING TEAM





BBD HOLDINGS GROUP STRUCTURE



BBD builds effective digital business solutions which support the optimisation of your business processes. Using our in-depth knowledge of custom software development and system integration, we're able to design and implement cohesive bespoke digital strategies that speak to each client's technical architecture using the latest technologies and best practices.



Fusion Software's product range features innovative and powerful ERP solutions for the SME market, including CRM, Projects, Timesheets, Accounting, Inventory, Field Service, Ticketing and HR modules to name a few. Fusion's business management software boasts web, app, and software based solutions.



Ilion links data and risk adjusted financial performance to deliver advanced predictive financial and risk analytics as well as data mining and financial risk model solutions. Technology neutral, Ilion works alongside their clients to create fully implemented solutions.



Innosys delivers custom software systems for insurance industries in South Africa, United Kingdom and Europe. They specialise in the development, implementation and support of systems across a range of various insurance domains.



Through bleeding edge technologies including robotic process automation (RPA), enterprise content capture (ECC) and business process management (BPM), Xpertek Contact enables their clients to leverage digital solutions to enhance internal operations. RPA and ECC allow for the sourcing and digitisation of data from almost any data source while BPM controls the flow and presentation of this data to users before it is used to deliver the desired outcome.



Sphere Investments // 51%

BBD Employees // 49%



BBD Holdings // 100%



Fusion Software Management // 74%

BBD Holdings // 26%



Ilion Management // 49%

BBD Holdings // 51%



Innosys Partners // 27%

BBD Holdings // 73%



Xpertek Management // 70%

BBD Holdings // 30%





PREMIER VERIFICATION

B-BBEE Verification Certificate

Issued to:

Barone, Budge & 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	11.99	23.00
Skills Development	14.58	20.00
Enterprise & Supplier Development	54.10	50.00
Socio-Economic Development	12.00	12.00
Overall Result	117.67	130.00
Priority Elements Achieved	Yes	
Empowering Supplier	Yes	
Nature of Business	Software Development	
Certificate Number	PV_1906013	

Element	Result
Black Ownership	50.29%
Black Female Ownership	15.19%
Designated Group Supplier	No
Modified Flow Through Applied	Yes
Exclusion Principle Applied	No
Measurement Period	28 February 2019
Re-Issue Date	Not Applicable
Issue Date	28 June 2019
Expiry Date	27 June 2020
Version Number	C01


Matthew Kearns
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No. 5 Second Road, Hyde Park,

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www.premierbee.co.za



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 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.

BBD IS SOCIAL

 /bbdsoftwaredevelopment

 /bbdsoftware

 /company/bbd

 /bbdsoftware

 /bbdsoftware

SOCIAL MEDIA



 **bbd**
software development


DOWNLOAD!
- files / photo
- song



SHOUT IT OUT

Anything exciting to **share** with BBD?

Whether you've racked up an award, found a sick new game or have been on an epic adventure – **we want to know!**

Mail marketing@bbdsoftware.com and we'll give it a shout-out!





AWARD NOMINATIONS

HOW THIS ALL **WORKS**

Our Awards Nominations **recognise and reward exceptional BBDers**. They're designed to praise those who **go above the call of duty** for clients and colleagues alike, and who deliver outstanding service and solutions.

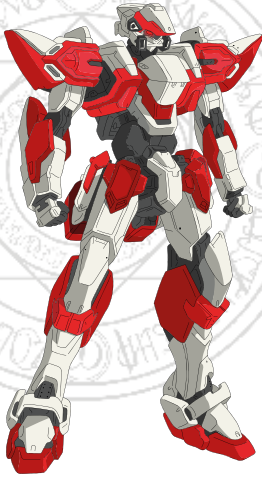
This year, nominations are accepted for anybody, including yourself, for whichever category.

The nominations run from February to October. The two monthly winners are selected by Peter Searle and get to **"PICK A PRIZE"**. The awesome prize collection includes an option for two Duvet Days for those times when you need to binge watch your favourite series, take a cat nap, or do whatever floats your boat. Monthly winners also get to pick a charity and **BBD donates R1000** on their behalf!

All monthly winners are entered into a final draw where three lucky people stand the chance to win a piece of the R150 000 pie!

1st R70 000 // 2nd R50 000 // 3rd R30 000

THE CATEGORIES



ULTIMATE BBD AGENT

UBA is to praise the individual who spearheads the conversion of ideas into realities, fosters the BBD philosophy at every turn with relentless ambition to promote the true essence of what BBD stands for, upholding the brand and everything we do.

GRASPS OPPORTUNITIES & WISDOM

The **GROW** category recognises the improvement and development of skills. This is someone who takes initiative to develop and improve their career through continuous learning and skill development. Grow is for the person who successfully seeks out training or on-the-job opportunities to further establish their skills.

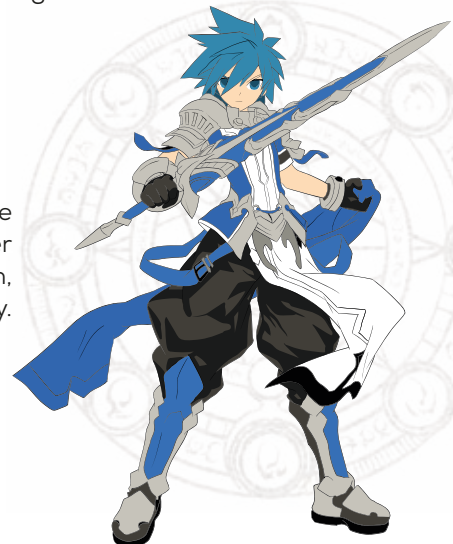


HELPING YOUR PEOPLE

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

WHATEVER IT TAKES

WIT is the category for the kingpin of perfection and reliability – the person who is driven towards ensuring client satisfaction no matter what. An almost endless source of dedication, passion and enthusiasm, this individual is a tireless champion for successful delivery.



THE SILENT OPERATOR

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

AWARD NOMINATIONS WINNERS



FEB // LOUIS STRAUSS



FEB // LISA RALL



MAR // TIANÉ ERWEE



MAR // ROBERT JONES



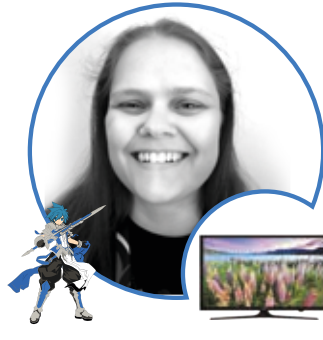
APR // MARRIAM MAREDI



APR // PEACE MAKINITA



MAY // AKSHAY DEOLE



MAY // MEGAN DUNCAN



MAY // MATTHEW RUSSELL



JUN // ANDRE PRINSLOO



JUN // SNEIDON DUMELA



JUL // NIKITA KOTHARI



JUL // KATIE CUBITT



JUL // JONASE PHOFU



AUG // RIAAN PRINSLOO



AUG // JACQUES SCHUTTE



SEP // STEPHANS KGATLE



SEP // CHRISTOFF KOK



OCT // PRERNA GIRME



OCT // FRIKKIE VAN BILJON

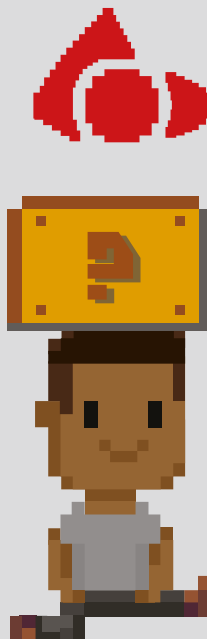


OCT // DE CLERCQ STEYN



Ready to level up your career? We are hiring!

Visit www.bbdsoftware.com/apply if you want to work
for an out-of-this-world software powerhouse!





BBD 35th

BIRTHDAY

BBD turned 35 this year. That means 35 years of delivering world-class software solutions – as well as 35 years of throwing epic parties. And this year was no exception!

Each location had their own special treat, Cape Town, staying true to its name, was hosted in an art gallery and housed a wine tasting and tea tasting section! India knew how to party and threw an unforgettable rave. Johannesburg had their very own Gin & Tonic bar, with an ice cream station ready to go all night! Each location definitely made sure that there was enough food to go around, which would easily satisfy the hungriest of bellies.

With angelic-like people on stilts, acrobats twisting and turning in positions you didn't know were possible and live performances from the likes of Goodluck, Freshly Groud and Rubber Duc, as well as local DJs, each night was one for the books.

It is safe to say that no matter the location, everyone spent the majority of the evening on the dance floor, chatting, dancing and laughing. Till next year!














Changing the last mile dispensing, distribution and collection of medicine in Africa

It's 9 am. People are rushing around trying to get their month-end shopping complete, catch a taxi or getting a bite to eat. It's your turn and you step forward towards the ATM, swipe your card and enter the password. But, instead of money, a two-month supply of your prescribed medication pops out, all in under three minutes.

When speaking to Fanie Hendricksz, the managing director of Right ePharmacy (the company responsible for the Pharmacy Dispensing Unit (PDU) and ATM Pharmacy), he said that the thought of being able to collect your medication in three minutes sounds like a dream come true to the majority of South Africans. This is because some patients who rely on public health services face up to 6 hours of waiting at their local hospital, clinic or pick up point. The lack of professional pharmaceutical services, accurate stock and quality patient management negatively impacts patients receiving treatment in the public health environment.



With this in mind and in place, Right ePharmacy decided to take action and set out to seek an innovative, strategic software solution provider for the dispensing, distribution and collection of medicine. It is then that their paths crossed with BBD, where we set out to help them achieve and develop these innovative dreams.

So, how do the PDUs and Collect & Go Smart Lockers work?

PDUs work exactly like an ATM, but for medication. It has a Skype-like audio-visual interaction between patient and tele-pharmacists with cloud-based electronic software and robotic technology used to dispense and label medication. The PDUs are chronic medication collection points which dispense medication quickly and accurately so that patients who are part of the public service don't have to wait in long queues at their local clinic every month when collecting repeat medication.

In fact, it is so simple to use that it's only a 5-step process:

- Patient scans barcode ID book, ID card or pharmacy card and enters their PIN
- Patient talks to a remote pharmacist
- The prescription and/ or items are selected
- The medicine is robotically dispensed, labelled and dropped into the collection slot
- The patient takes the receipt which indicates the next collection date

With the apparent dire need for these PDU units growing rapidly, Right ePharmacy has already implemented 5 sites and 18 PDUs, namely in Soweto, Diepsloot, Alexandra and Bloemfontein.

Similarly, the Collect & Go Smart Lockers are electronic locker systems built to improve patient access to pre-dispensed medication parcels. But these aren't just any ordinary lockers. Hendricksz explained that "The lockers are temperature-controlled, secure and are integrated with AWS cloud-based technology to enable remote monitoring and management. The cloud-based information system hosts and manages delivery and / or patient data and automatically syncs via mobile connections when the PCUs are refilled." This means that even if a PCU is in a remote area with no connection, it can still sync to the databases often enough to have updated reporting and statistics. In countries like Africa, where there are many areas where people do not have access to infrastructure and connectivity, the ability to bring crucial services such as the delivery of medicine directly to the people is life changing. With our footprint and vast experience, we are able to bring specialised software skills to the table which have helped Right ePharmacy extend their reach into their less serviced areas of our nation and others.

By utilising AWS' cloud, users are informed by SMS about their next collection dates and reminders are sent. Hendricksz explained that this innovative technology promotes patient retention and assists the early identification and intervention for patients at risk of non-adherence, resulting in positive

clinical outcomes and effective patient data management. The customised project is directly aligned with South Africa's National Department of Health priority need to decant stable patients out of facilities and enable more convenient chronic medication collection and management.



At BBD, we have been committed to forging the future with innovative tech for the past 35 years and with our global reach readily at hand, we make for the perfect technology partner.

With innovation and improving the quality of life in our sights, BBD and Right ePharmacy have their eyes set on releasing up to 400 Collect & Go Smart Locker units at 67 pick-up points within 6 months.

The next step is to bring this state-of-the-art tech to the rest of the world, starting in Africa. At BBD, our distributed development model allows us to be able to go wherever is needed to assist our clients in their project rollout.

This, coupled with enabling real-world solutions through innovative tech, allows us to create solutions that solve real problems for real people.

Although this is only the beginning, it is evident that the tech is already making strides. With current projections, the technology in place is making it easier for people with various illnesses to have access to medication, ultimately improving adherence and their overall quality of life. And this is only just the beginning.

Andre de Witt
BBD HEAD OF GROUP INNOVATION



AMAZWINGZWING

The office was buzzing with anticipation for our annual Acturis teambuild that we are so well known for, and our expectations were definitely met.

On Friday morning we arrived at Amanzingwe Lodge where we took in the beautiful surroundings. We started with a delicious breakfast while waiting to see what else the day had in store for us.

We kicked off with some team-oriented games and archery, along with a trip around the dusty landscape on quadbikes. Everyone returned for a lovely lunch and then, the real fun began... We went on a ziplining adventure through the trees, the longest line stretching 240 metres, testing everyone's resolve and bravery with height and speed. No one can deny the adrenaline rush that came with zipping from platform to platform.

The ladies were treated to a full body massage and facial. After which, we joined the boys once more, checked in and descended to the pool, at which point everyone needed a much-needed cool-down from the excessive heat, either sitting in the shade or enjoying the water. Add some drinks to the mix and the mood quickly turned to laughter, stories and jokes.

This ultimate relaxation was followed by a delectable kudu potjie, spitbraai and some rather interesting dancing to Maroelaboom's "Doen die Sexy Hoender". With delicious food and probably a little too much alcohol, conversation flowed until gradually everyone retired to their rooms, with some stopping to have some final drinks around the fountain.

It was very clear the next morning that we had a very busy teambuild which concluded with yet another yummy breakfast before returning home to rest and continue to the end of a very long, yet successful year for the team.

Antoinette Henn
BBD ACTURIS TEAM





BBD PTA CRAFT DRINK FRIDAYS





At BBD, we've always been known for working hard and playing harder and what better way to create strong bonds, get to know each other outside of work and discover that you might share the same interests and hobbies than over a few craft drinks?

Every Friday at the BBD Pretoria office, we get together to blow off some steam and to rate, review and request craft drinks. BBDers request which drinks they would like to taste each week and so far, we've tasted a few varieties of local craft beers, ciders and gins. The drinks are reviewed and rated while stories are shared, jokes are told, and fun is had. And boy do we have some special characters, as you can only imagine!

Memorabilia is also shared and handed out for the ratings and reviews, and so far we've had the opportunity to taste lagers, golden ales, IPAs, non-alcoholic, weisses, pilsners, pale ales and cannabis varieties along with an array of gins from different breweries. Even when work gets rough and the hours become long, spending some relaxing time with your co-workers is the thing

people like most about their jobs. With improved morale, engagement and the joy of closing your laptop a little early on a Friday, this event replenishes our culture and gives us a chance to socialise and bond. Perhaps even just taking a shot while wishing the Springboks good luck is all it takes!

The initiative was created not only to attract and keep top talent, but to build bridges across departments, too. Interacting with colleagues you might not usually see or know, sharing experiences and collaborating with each other brings fresh ideas and helps out of the box thinking.

Every job is stressful in some way. Deadlines, feedback, customer demands and even tough bosses who be a little overwhelming, but taking a few minutes to relax while enjoying a craft drink makes everything seem better. I am sure you'll agree it's also the best way to end your work week and start the weekend!

Piet Dreyer
BBD EXECUTIVE



STANDARD BANK

TOP WOMEN AWARDS 2019



At BBD, we are committed to supporting women in the technology landscape and were proud to sponsor the Top Woman in ICT award at the 16th annual Standard Bank Top Women Awards in August this year.



Attending and sponsoring this event gave us the opportunity and platform to celebrate the incredible women we have in our industry, and hopefully inspire others to do the same.



It was an evening of power and glam, with Caster Semenya giving the keynote address on her journey as a catalyst for female empowerment while Yvonne Chaka Chaka lent her soulful voice to a heart-warming dedication to Mary Twala, who received the Lifetime Achievement Award.

Presented by one of our very own Patricia, the award went to Veronica Motloutsi from Smart Digital Solutions. Congratulations Veronica, and to all those nominated!

Katie Cubitt
BBD MARKETING TEAM



CLOUDY

WITH A CHANCE OF SIGHTSEEING



Because it's so awesome to go see places in Pune during the rainy season, this year for our teambuild we decided to take a trip to the Sinahgad Fort in the Sahyadri mountains. On a nice cloudy, drizzly day, myself, Sachin, Megha, my husband and Herman and Leslie from the JHB hub went to experience the beautiful scenery of Pune.

We were lucky that by the time we got to Sinahgad it wasn't actually raining, but we could feel the clouds around us as we walked the 3 to 4kms around the fort. We also ate some delicious local food which the fort is famous for.

It was a really great day out!

Sonali Deso

BBD SARS TEAM



BBD BRINGS THE GAUTRAIN TO YOUR DOORSTEP

DESTINATION

TO AND FROM ROSEBANK STATION

TRANSFERS

Monday - Friday

COLLECTIONS

07h10, 07h50 - Rosebank

16h15, 16h45, 17h15 - Killarney

Collection from Rosebank: follow Gautrain signs to the shuttle / taxi area on Oxford Road South



SUPERCHARGED FOR SUCCESS

((wit + grit))^{knowledge craver} + ((boundary pusher × problem eliminator))

plays hard



For an organisation that tuned 35 this year, one does have to ask the question: what and how is it that there can be so many competitors in the tech space, yet few flourish? Never mind just flourishing, but what is it that organisations are doing to thrive in such a turbulent economy? The secret lies in the people who deliver along with the organisation's ability to continuously adapt in this ever-advancing industry.

In our business, where the people who develop and enable our solutions are key to thriving, we have had to take some great strides in the way in which we attract and engage with future employees so that we can continue to deliver as we grow. What BBD has always excelled at, is having the frameworks and leaders in place to assess the technical competencies of our newcomers.

Our bespoke technical challenges are some of the most stringent benchmark assessments in the industry. Believe me, if you get the thumbs up on BBD's aptitude barometer, that is, having the technical skills and computational thinking we require, you are already considered one of a few who make the grade. But one of the strides we're taking is to focus not only on having the ability to pump out effective solutions and strategies deliver value to our clients, but acknowledging that only being able to code is no longer enough.



It isn't enough for us, it isn't enough for our clients, but most importantly, it isn't enough for our employees. Culture fit is crucial to career happiness. If BBD can't substantially improve our peoples' skills, take their careers to new heights, and weave them into the BBD team, then why even start the journey? We wouldn't be who we are without our people.

Considering all if this, we have adopted new methods to engage with the candidates who apply to BBD and establish early on if our culture, values and skillsets are aligned. We have completely revamped our approach when dealing with potential talent in the market and at every point, we are humanising and personalising the candidate experience. BBD is a company full of personality, and our processes now wholesomely reflects that. Authentic potential career engagements extend beyond matching competencies to a job description. It is through conversation and questioning that we establish what will truly make a candidate's tenure at BBD a long and happy one.

We have learnt that our best employees display certain characteristics, and in our interview process, we work hard to uncover if these exist in a potential employee. We are cognisant that the interview process is a two-way street and we give candidates a true reflection of what they can expect once they join BBD, both in the actual role they would fulfil as well as within BBD as an international organisation. Aligning all these things is, to our experience, the best way for both parties to achieve mutual success.

At BBD we offer employees the opportunity to gain deep holistic experience in a multitude of different industry sectors. This agility allows you to expand your technical and sector-based knowledge, without ever having to leave the company - gaining exposure to new tech stacks, frameworks, languages and teams. This not only benefits each employee, but also our clients and how we bring this knowledge as value into their environments.

Our ultimate goal in the talent acquisition process is to ensure we are engaging with the right people, at the right time, in the right place who will join us for the long haul. It is very rare for a person to be with one organisation for ten years but move to a different tech stack in a totally new industry every two years. But at BBD, that's common practice.

In order to achieve that type of extended long-term relationship, the building blocks must come down to a true match for both parties from the onset. With BBD's thought leadership and ability to remain humble, we offer a holistic career journey for top talent, alongside a dedicated continuous learning programme to keep each employee at the top of their game. At the end of the day, this strategy allows us to remain perfectly poised to continue for another 35 years of success... at least.

Deborah Watt

BBD TALENT TEAM

A RAGING COOK-OFF!

On a sunny Friday morning, the team met at a designated camping ground in Pretoria. Our teammates from Raging River had already set up the boombox with classic rock tunes floating through the early morning campgrounds.

We kicked the morning off with some ice-cold beers and good conversation before getting stuck into potjie making.

The potjie was a good chance for the BBD and Raging River teams to bond and really get to know each other. A sense of harmony and platonic love was fostered between us as we peeled tomatoes, chopped chillies and prepared the meat. We experienced the teamwork and camaraderie between us cement with each chop, laugh and gesture of affection shared.

The head chef on my team, Freeg, made a delicious creamy chicken curry with dried fruit and cashews, a sure-fire win. However, the other team's chef, Jaco, used red wine and dark chocolate in his oxtail potjie. The hints of melted dark chocolate paired with the sweetness of the red wine were absolutely exquisite.

Judging was a point of contention as each team felt Jaco deserved the win, however we managed to scrape the victory, taking home the prize!

It was a great time and I would definitely do it again.

Henrick Tissink

BBD RAGING RIVER TEAM



For this year's teambuilding experience, we, the Momentum team, decided to take our brain and collaboration skills to the next level and that meant stepping outside our comfort zone. Our first destination was to the #Escape room in Joburg. I must say, it was a great, fun-filled teambuilding experience that was interactive and fulfilling.

On arrival, we were split into three teams, each with four people. Some teams were given a specific uniform to wear, which later contained clues to escape the room. Each team was separated into a different room, with the first placed into a secret rebel room, the second team into a horror room and the third team into a prison break room. The teams were required to work together to find and interpret clues placed inside in order to escape. To achieve this, we had to exercise our active listening, communication, time management (we only had an hour to escape!) and team playing skills. With the engagement and excitement of the team, the experience became so real and believable. The adrenalin of not knowing what was next was exhilarating!

All three groups performed exceptionally and excelled with their team spirit. Two out of the three groups made it out within an hour, which was truly impressive! The horror room team escaped first, followed by the prison break team, which also happened to be the hardest to complete. Overall it was a great experience and I know the team would do it all again in a heartbeat.

For the two teams who made it out in time, the victory was fulfilling and overwhelmingly great!

After our day of adventures, we headed to a beautiful restaurant around the corner for a hearty three-course meal. While enjoying the delicious food, we all took turns sharing our different experiences, some of our best moments and oddly silly failures, all whilst gripping our stomachs with laughter!

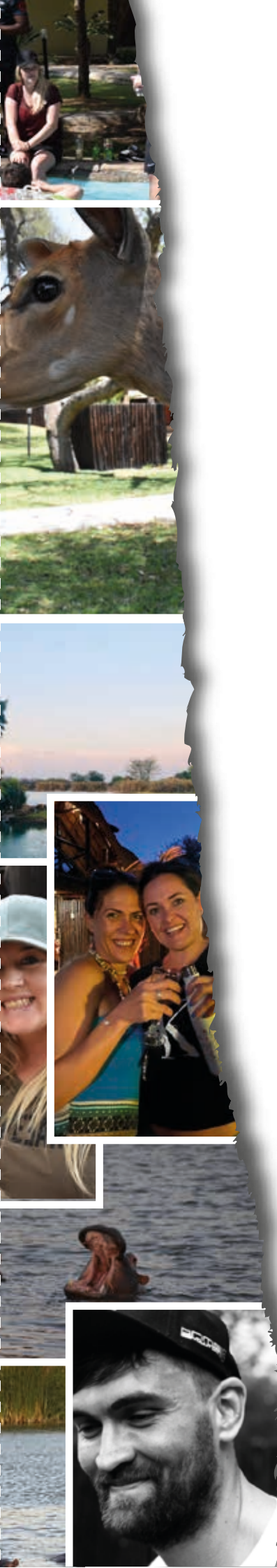
THE GREAT ESCAPE

“Beat the clock and turn
the lock!” sounds simple
enough, right?

Marriam Maredi
BBD MSDF TEAM



LOSING OUR MATE BILLS



Being one of the new additions to the team, this was my first, official, BBD teambuild and I was fortunate enough to accompany the infamous MARBILL team.

How did it go, you may ask?

Well, the day finally arrived after a long and anxious wait, with some ready and waiting to go 45 minutes ahead of schedule, whilst others kept in constant communication while battling the Joburg traffic. When they finally arrived, their smiles were both cunning and portraying of the joys that awaited us.

We were welcomed onboard with lucky packets filled with delicious goodies. While we munched away, we got to get our "jam on" with our favourite songs, all compiled into a roadtrip playlist, along with some added "liquids" of course... wink, wink.

The fun, smiles and laughter shared were only a fraction of what was to come as we, in the blink of a joyful eye, arrived at the wild and beautiful Ditholo Game Lodge. We were welcomed by the scorching heat and some hungry buck residents awaiting some hand-fed treats. After settling in and becoming acquainted with the animal life at the lodge, lunch time saw delicious burgers! With bellies full, it was time for the post-lunch nap or a much-needed cool off in the pool, where Bongsi had her swim weave ready for action. With both music and conversation volumes turned right up, we had the pleasure of getting to know all our MARBILL family members better.

After much chatter and bonding, it was time to show off our cooking skills with an inter-team cook-off: who can make the best potjie?

Split into 3 categories; beef, chicken and vegan, some of us were tasked with the master chef work while the rest provided moral support, all waiting in anticipation as the ingredients were prepped and the potjies were set in the coals to cook away.

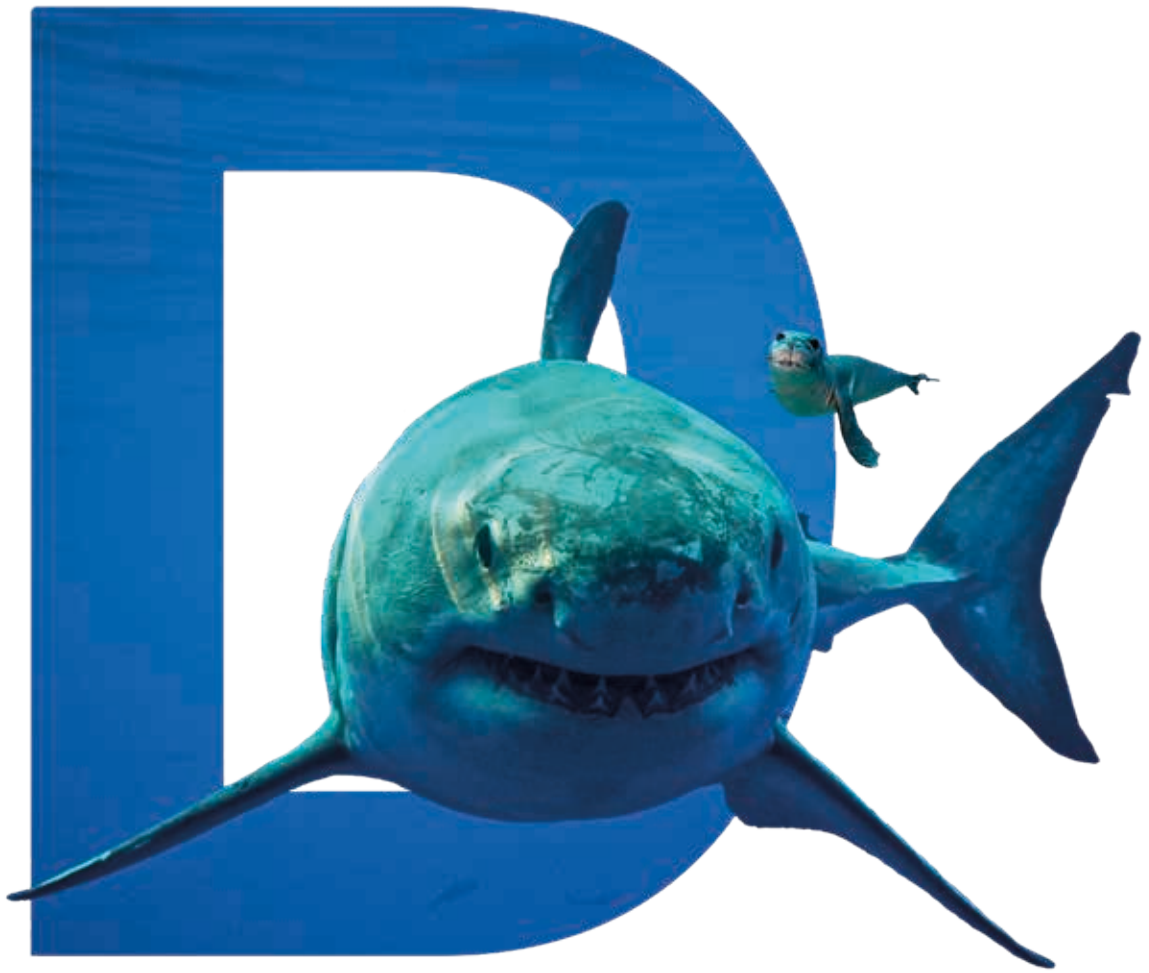
A couple of hours later, we were ready to taste our creations. We all tucked in, while

the Ditholo staff graced us with a traditional dance that they had choreographed all by themselves! Our potjie dishes were polished in no time, with the vegan potjie named the winner! Questions of bribery did arise, but we accepted the result and embraced our winning team graciously. Their prize? A bottle of milk tart! Needless to say, this was handed off to a non-vegan competitor to enjoy.

It was time for our own "Noot Vir Noot" and we couldn't wait to start! Teams decided, our 60s and 70s music knowledge was thoroughly tested. Some of us millennials found this challenging, but were up for the task regardless, and after many a drink, a victorious team was not determined. Instead, a sing off ensued, with our resident "Tall Shady" aka Blake coming out to play. There were many singers showing off their vocal ability with maybe too much confidence and ambition... Even Peter Searle himself graced us with a rendition of Bob Marley's "No women, no cry". Our backup dancers pulled moves so out of this world that one would think that their knees know no bounds with how low they could go! Eventually, we could not distinguish between the songs and the sounds of our own laughter; this surely was a night to remember!

It was only a few hours of sleep later that we were altogether again, enjoying a much-needed cup of coffee, a delicious breakfast and plenty stories relayed from the night before. Alas, it was time for the drive home, with only one thought in mind: BBD is truly the best company filled with an array of amazing people that we call family. This was an incredible teambuild in which all 24 of us walked away closer than before. Till the next one!

Tristin Untiedt
BBD BILLING TEAM



DODGING DISASTERS WITH **SECURE CLOUD ENVIRONMENTS**

If dodgy data activity is rattling your confidence in migrating your business to the cloud, you're not alone. Data breaches are now headlining newsfeeds on a regular basis. The sheer volume of the world's daily data collection is also spiking security concerns, making the business of protecting it all the more complex.

As a custom software development and cloud enablement company, BBD understands that an organisation's cloud solution will always be a moving target. No one is immune to the vulnerabilities involved in storing data in the cloud.

Often an afterthought

Security is something that needs to be set up correctly from the very beginning and continuously monitored. It is advisable to adhere to the five key pillars at the start of any cloud migration plan, one of which involves security measures. The other pillars of a well architected framework that must be taken into consideration are operational excellence, reliability, performance efficiency, and cost optimisation factors.

The design principles which incorporate these security measures should include tools which can be applied throughout the different layers to provide you with end-to-end protection. This can be achieved by implementing automated security practices and preventative components to guard against potential threats.

Seriously, think security

Customers, revenue or overall reputation - the very things any business fears becoming compromised or losing altogether are the same reasons why a security strategy must be clearly defined from the beginning.

But it's not only loss of data, the last thing any organisation wants is an exorbitant bill. With the massive scalability of the cloud at their fingertips, coupled with a malicious intent, hackers can quickly ramp up your costs if your cloud environment is not as secure as you think it is.

Not all breaches will take you by complete surprise either. Many tricks in a hacker's toolbox can be planned for and that's why having the correct security measures in place helps to avoid such a bill, or the loss or theft of sensitive data.

Breaking misconceptions

To have the mindset that security will only be handled entirely by the cloud provider is not correct. Security is a shared responsibility between the provider and the customer. Which

is why selecting the right cloud partner for you is an essential stepping-stone in achieving a secure journey to the cloud. Simply put, it's not worth cutting corners at any stage of a migration to the cloud. Credible cloud providers have the best quality infrastructures, highly skilled resources and the professional software in place that's needed in order to achieve resilience. At BBD, this is what the client is ultimately paying for when it comes to implementing a top-notch security solution in the cloud. Poor planning or inferior quality services and tools will make the entire project unreliable and by extension, unsafe.

Dodging disasters

In order to protect yourself against vulnerabilities, always do your research and follow the best practices recommended by your cloud provider during the initial planning phase of your migration strategy. Use the cloud management security tools as they give you an overall indication of the status of your environment and outline potential weaknesses.

- Ensure that your users accounts are configured with least privileged access
- Enforce Multi-Factor Authentication on all admin cloud management accounts
- Preserve the integrity of your data by enforcing the use of stringent encryption techniques of all data in transit as well as all sensitive data at rest
- Opt for a custom cloud solution which meets your requirements as hosting your data in the cloud does not automatically make it secure and resilient
- Backup your critical data
- You're putting your data at risk if you are accessing your cloud instances directly over the public internet without some form of second level protection like a bastion or VPN
- Ensure you have set up alert monitoring and notifications for any security changes and irregular behaviour in your access logs



To prevent against vulnerabilities, and dodge any potential disasters, a security strategy not only needs to be well architected; it must also be adaptable.

Preventing exposure

A prevention rather than cure approach is key to prevent any data or workflow exposure. Human misconfiguration issues are the biggest cause of information leaks. Implementing security processes which enforce a tight lock-down on user access rights as well as audit trails to track user access in relation to resources is recommended.

- Ensure your management portal credentials and application programming interface (API) are kept away from prying eyes – API security is often overlooked
- Keep all credentials stored in a secure central location on an encrypted storage medium

Understanding cloud vs on-premise

On-premise solutions differ from cloud in that a business' internal teams are solely responsible for their own security. Everything from the infrastructure to the application is up to a business to manage on their own. Once a cloud migration has taken place, the responsibility shifts.

After migration, a cloud provider now becomes responsible for protecting the underlying infrastructure which comprises hardware, software and networking that run the cloud services. The customer will now have access to the cloud services and is now responsible for the configuration thereof in order to reach the desired level of security.

A well-established business with a substantial workload in local datacentres usually requires a lengthy transition period to complete the cloud migration. During this period the business would be running in a hybrid scenario which from a security perspective can easily become a very uncontrolled situation by exposing new vulnerabilities if not managed correctly.

To prevent against vulnerabilities, and dodge any potential disasters, a security strategy not only needs to be well architected; it must also be adaptable. A patch the holes before they're made approach helps to anticipate breaches. Preventative measures offer the added bonus of being able to detect any early breaches that occur, and tighten the screws.

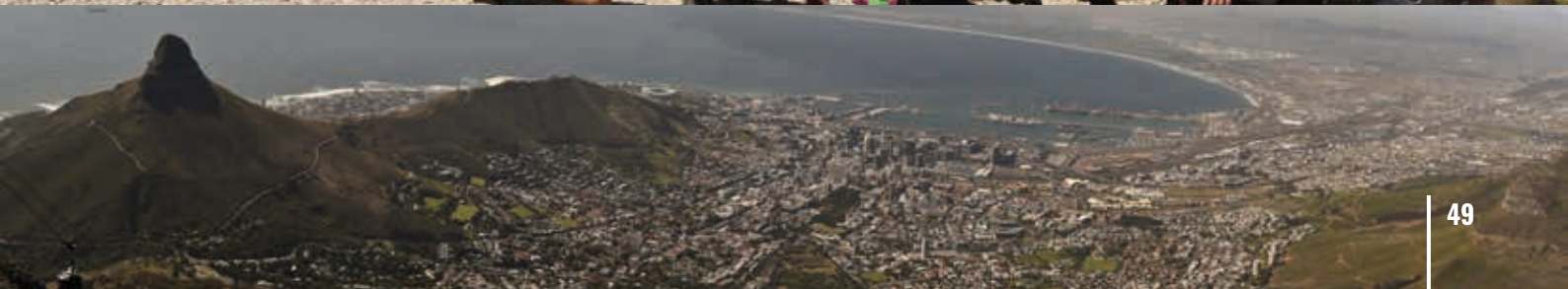
With experienced certified cloud professionals implementing and managing migrations at cloud providers such as BBD, it is possible to sustainably secure scalable cloud solutions.

Clayton York
BBD IT TEAM



GRAD-ULICIOUS GALLIVANTING

Each year we pack our bags, round up our grads and embrace the adventures Cape Town and India have in store for us. The BBD grad trips are specifically aimed at forging new relationships between our teams, while giving the grads the lowdown on what it really means to do things the BBD way. This year was no exception. From freefalling down sand dunes to marvelling at the Taj Mahal, the trip sparked friendships and ignited a slew of unforgettable moments.



Wesley von Graevenitz

Having grown up in the flat Free State landscape, Cape Town was just beautiful, and the perfect environment to get to know everyone. For me, quad biking in the sand dunes was the main event.

Mbongeni Ndlovu

We visited lot of amazing places and working in the BBD India office was a great experience, I really loved the Rooftop Bar. It was an unforgettable trip; in Joshua's words "It was FANTASTIC!".



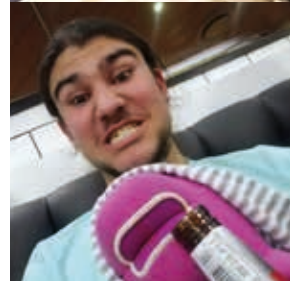
Arnold Hendricks

India is one of my all-time favourite/weirdest countries. India would most certainly be one of the craziest countries in the world to drive in. We had a good ride in one of the tuk-tuks and I saw my life flash before my eyes for ten minutes and nearly lost an arm! On the road to Mumbai, the BBD team tried to relax while the bus dodged cars, cows and camels on our way to the year-end function.

If I have learned anything from this trip, it would be: "You need three things in India. Good brakes, a good horn and good luck!!"- Russell Davidson.

Modisa Mokgethi

It was really nice being surrounded by my colleagues and exploring the city together. A lot of the things we did there were a first time experience for me, so being there was basically one of the best things that has happened to me this year.



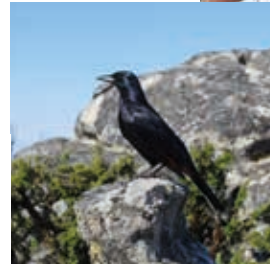
Lauren Barger

India was a trip that I'll never forget. I found it impossible to find food that wasn't delicious, saw some fantastic things and was struck dumb by the total wow-ness of the Taj Mahal. The trip was more than I ever thought it could be.



Marno Grobler

We had a wonderful time sightseeing, partying, and going on adventures. It was great spending time with everyone outside of work. It just goes to show that BBD is a great place with great people all around.



Laone Matshediso

Cape Town in a word was incredible. If I had to pick a favourite part I'd say it was going up the mountain. Yes, Thee Mountain, one of the 7 natural wonders of the world, Table Mountain! I'm super grateful that I got to go on this trip.





Zenande Godongwana

The Cape Town trip was one of the highlights of my year. As a person who has never been there before, the experience was immeasurable.

Storm Menges

The India trip was absolutely amazing, from the sight-seeing to meeting the BBD India employees. I think another aspect of the trip that made it so enjoyable was the people - getting to know everyone in a more personal way and seeing that the people that BBD hire are great company.



Robert Basson

India was a completely new experience for me; it was my first time leaving the country. I knew I was in for an adventure when one of us was almost arrested for excessive moisturiser at the airport. After a sprint through the Dubai airport to catch our connecting flight, we landed in Delhi, where we got to experience the bustling market before heading to the hotel. We spent a few days sightseeing places like the Taj Mahal, Agra fort and Akshardham. I particularly enjoyed the food (we seemed to have a never-ending supply of naan and Kingfisher) and bonding with the fellow grads.



Darius Scheepers

BBD just gave me an unforgettable experience. Having a beer or two with the most experienced big heads in the company and getting a piece of their wisdom was all we really needed, yet it was a never-ending party! I am looking forward to collaborating with many of the grads in future.

Chance Green

It was a great chance to connect with the grads from Johannesburg while exploring parts of my city I've never explored. Super grateful for the amazing trip!



Tanya Börner

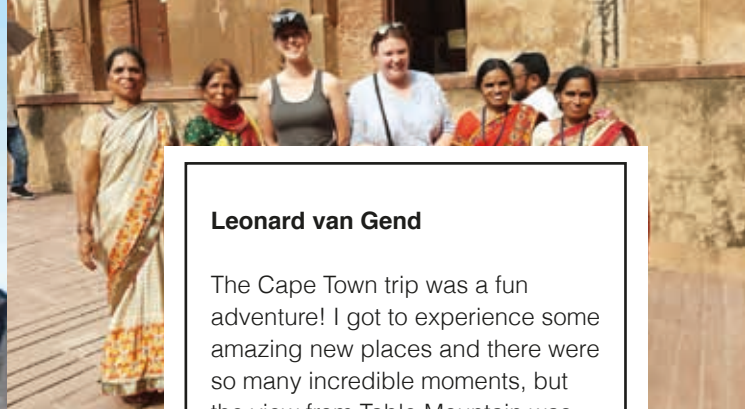
I had an awesome time on the grad weekend! Visiting Robben Island was something I've always wanted to do, and hearing its history was as interesting as imagined.





Shivaan Motilal

The India trip for me was an eye-opening and awesome experience. The intense heat, crowds of people, wonderful curry and motorcycles everywhere are a few indicators that you have reached India. It was great meeting BBD India; those guys can really dance all night long!



Leonard van Gend

The Cape Town trip was a fun adventure! I got to experience some amazing new places and there were so many incredible moments, but the view from Table Mountain was awe-inspiring!

Ronan Constantine

Cape Town was such an awesome experience! Between the trips to Robben Island and walking on top of Table Mountain we were exhausted from our days out. Luckily there was always plenty of delicious food and drink at night to revitalise us for the next day. Personally I'm very happy with the fact that I was able to get to know such great people. Thanks BBD you rock!

Aimee Handley

The lung-collapsing humidity that hit me as I stepped out of the air-conditioned bus. The insane traffic where you make your own road rules. The stunning Taj Mahal and temples. The mouth-watering food and the thirst-quenching Kingfisher beer. A sensory overload at every turn and definitely the most memorable trip of my life so far.

Rowan Reeve

Cape Town was such an awesome experience! Personally I'm very happy with the fact that I was able to get to know such great people. Thanks BBD you rock!

Mikhail Padayachee

The trip was unbelievable. It was really eye opening being able to see a completely different part of the world and how they live. Being remote for most of the year, it was really nice getting to know everyone I've worked with over the course of the grad programme.

Pooja Hassamal

The trip was everything and more, it gave me a chance to get to know everyone on a personal level and enjoy the beauty and excitement that Cape Town has to offer; it turned strangers into friends.





Alex Coetzee

India was amazing. Having an air-conditioned bus and water offered to us immediately when we got on was a testament to the heat. The food was as hot as it was delicious. My favourite parts of the trip were any time we were in a bus because Indian driving is a lot like riding a rollercoaster. 10/10 would go again.

Dario Vieira

Coming back sleep deprived and 3kgs heavier, I can honestly say it was a mind-blowing experience that I wouldn't change for the world. My most memorable moment was realising the perfect symmetry of the Taj, the thought and effort that went into its precision - most notably for me the widening of the verse from the Koran to maintain the appearance of its size.

Karabo Ngwato

What I appreciate most about the trip is the opportunity to interact with the directors on that level. Before the trip it was hard for me to interact with some of the grads, but the activities during the trip helped us connect better.

Phatho Pukwana

From the bustling streets of Delhi to the amazing architecture of Agra, India was one of the most beautiful experiences. The cultural heritage and culinary delights were made all the better by the great company which ensured there was never a dull moment.

Joshua Buhlungu

The #BBDgrads2india trip was fun, enlightening, and memorable. We got to learn a lot about India's cultured history and paid a visit to one of the seven wonders of the world. Some of my most exciting moments include coming third in the BBD India Hackathon, and visiting a Hard Rock Café for the first time (so cool!!). The whole trip was just a delight, filled with HIGH temperatures, LATE nights, and EARLY mornings.


Tyron Barlow-Kearsley

We had one job. Don't let Tony or Chris get ahold of Barney. From trying to get him back from kids to fishing him out of the waters, us grads were kept on our toes the entirety of the trip. Smelly seals, good food and even better company, we experienced it all. From the top of Table Mountain to rock bottom the morning after a rough night out.

Lance Chant

Being able to visit the Pune offices was really awesome. We had the opportunity to work with some of the employees during the hackathon, thanks to Chetan and Madhura for being part of the team with Lauren and I, hope you built some awesome robots!





CDOs & CIOs

MORE THAN A LETTER APART

Large research and advisory companies have been instrumental in getting the role of the Chief Digital Officer (CDO) entrenched in many South African companies.

The CDO role was introduced as a senior C-Level executive who focuses on the digital transformation journey, a highly prevalent global trend that's transcending sector silos. The Chief Information Officer (CIO) in contrast, was there to run a cost centre that serviced, supported and underpinned the business, but was conflicted in terms of innovating and reinventing within the business. A CIO supports the company whereas the CDO works with the business to fundamentally change the firm; focusing on the customer rather than the systems. This distinction in duty and focus brought about this need for a different leader to guide the digital transformation journey.

According to the Financial Times on the CDO role: "The job involves looking for business opportunities that have been enabled by the digital revolution. It also involves focusing on customers and how their needs might change because of technological developments."

When looking at a short history on how computing has evolved, during the '90s, the software was working on getting paper from the filing cabinet into a digital form. Many companies took longer than the '90s to get this right, and some still haven't. In the first decade of the '00s, companies focused on automating and building the systems, on running these back offices extracted from the filing cabinet. This process was laborious and complicated; the quality of data was poor and the structure of organisational data focused on how the back-end stored the data. Most interaction with companies still took place via hand completed forms recaptured by the middle office.

Today, digital transformation strives to make the entire organisation digital and transparent

– from customer to back office; essentially allowing the customer to interact with their data and in large parts, servicing themselves. This is made possible by the organisation building the back-end and exceptional flows that enable this self-servicing without the need for call centres or company staff members to intervene in any transaction.

Such self-service is the holy grail of what organisations undergoing digital transformation are intent on achieving. But even the most successful have not yet reached this accolade. Many so-called platform businesses claim to be built around their IT platform and are created using a customer-centric approach, but inconsistencies in what the user experiences are still referred to a physical call centre. Even when there is a bot that can assist you, it typically just deals with the most simplistic of tasks. More advanced queries still get routed to a human operator.

Enter the CDO. Their role is to make this full digital transition happen. While it's true that many of the other roles in C-suite typically overlap with the role defined for the CDO, it is not their primary responsibility to transform the organisation. The CIO needs to keep the organisation running, and while they may provide some budget and technology infrastructure to support the digital transformation, it's not their primary role. The Chief Marketing Officer (CMO) may also have interests in presenting the organisation as transforming to digital, yet this role has no actual capability to transform the organisation on a system and infrastructure level. Marketing will provide the digital brand with the brand direction that now defines the new face of the company, but the involvement stops there.

Even many of the successful platform companies have not yet solved this problem of not requiring a human agent dealing with

Today, digital transformation strives to make the entire organisation digital and transparent

exceptions. Think of this scenario: You order food on an app; you are about to receive your order when the app driver decides to drive off with your lunch. After many emails and explanations, you might get a refund, but you didn't interact with a bot to get that right. This happened to me.

Few companies have managed to get the customer support challenge right. Good examples are those providing simple digital services like email to the world - where they require you to have your backup checks in place to be able to unlock your account, should you lose control of it. If you do lose all your ways of identifying yourself, in the end, there is no way to contact a human. It was carefully crafted this way, and not by accident. If you can't unlock your account, your only resolution is to open a new one and abandon the previous one. There is still work to be done here to make platform businesses operate entirely autonomously. Customer in-app support will be the future to the success of a digital company that can scale without being tied to the limitations of a call centre. Evolving customer support will need to be understood and driven by the CDO. This is only one facet of the challenges the CDO will need to solve in the digital transformation journey the company undertakes.

Despite the concerns about the relevance of the CDO role, there are clear challenges that companies who are, or want to be, digital need to solve to scale to become better platform businesses. The role of the CIO remains a critical position in the organisation, especially if IT is not a solved problem in the company. Future scenarios are that all in the C-suite may need to embrace the digital role. But for now, the focus on digital means that several CDOs are sitting at board level, as digital transformation is a board-level priority.

Peter Scheffel
BBD CDO





Have you ever played Scrabble? Rummicub? Monopoly? How about Jenga or Uno?

I'm sure the answer is yes, and as most people know, these run of the mill games can become a little repetitive because it's just what everyone always plays. But what if there was a solution to your tabletop withdrawals? Something a little more, daring. A little more, epic?

BBD presents BOARDGAME EVENING. No more mundane, senseless attempts at enjoyment. It is pure, unconditional, unadulterated awesomeness!

From card games through to epic level strategy boardgames, we've got you covered. Join in on a round of Camel Cup, where you place bets and race camels at the mercy of RNGeezus. Or perhaps join a team of elite spies that have to figure out Codenames with only the vague clues of the spy master to guide you. How about building a Civilization. Feel like exploring the Abyss? If you want, we can even introduce you to our friend John, and see if we can help him achieve his goals?

How about some Dungeon crawling or taking at Risk? Want to join a Rebellion, stage a Coup and overthrow the lying cheating politicians around you? What about unravelling some Dark Stories? Want to build an army of Unicorns? We've got you covered. We've got deck building, dice rolling and mind blowing adventures waiting to be had and memories waiting to be made.

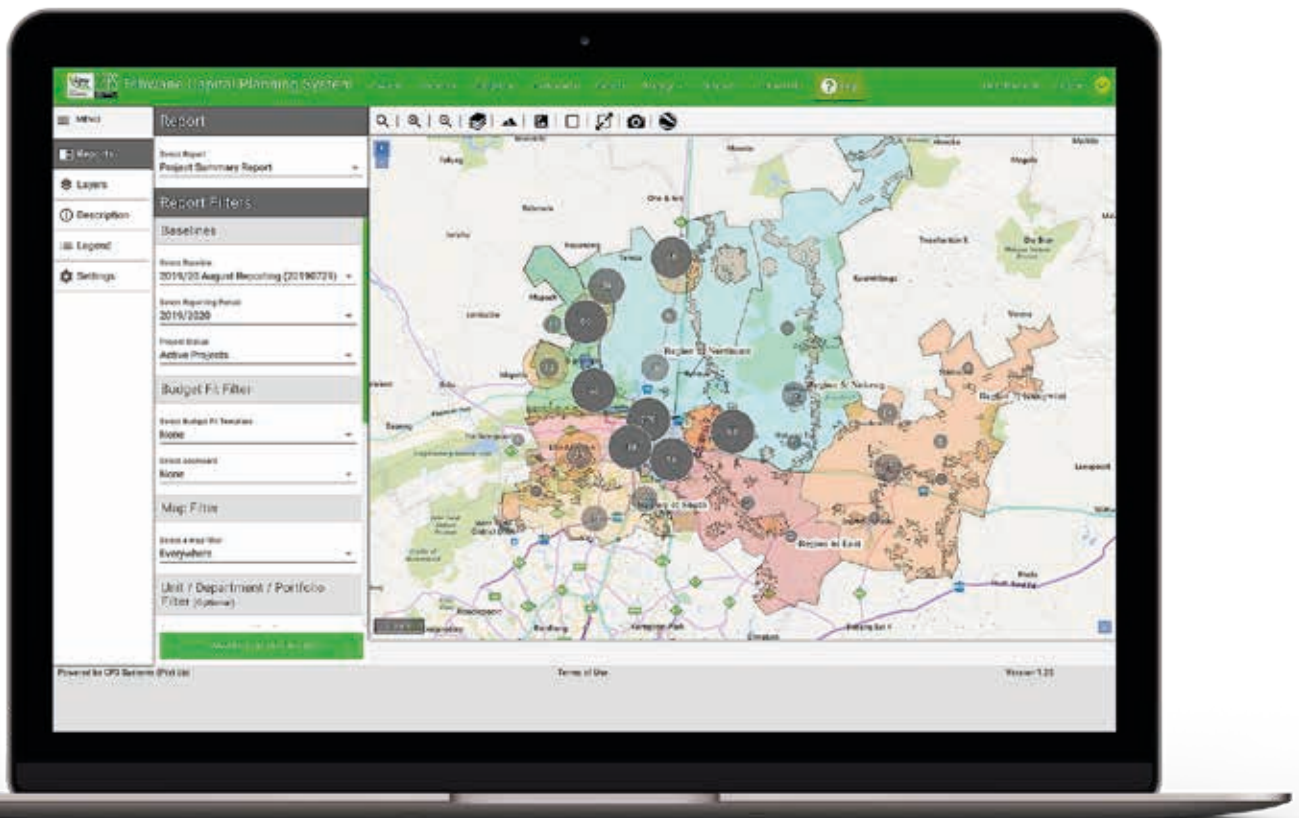
Do you have a strange or unique game at home and no one to play with, one that you think people would enjoy? What the hell, even if you want to play a run of the mill game with friends, bring it with you, we don't judge! We have pizza, drinks and endless amounts of fun. And with boardgames, one thing is always true. The more, the merrier!

Antoinette Henn

BBD ACTURIS TEAM



**WHEN INNOVATION AND
TECHNOLOGY MEET, GREAT
THINGS ARE BOUND TO HAPPEN.**



The beauty of the CP3 web-based application lies in the graphical and geographical representations of the comprehensive data it collects.

As part of their vision to expand global reach, market penetration, technical reliability and scalability of their flagship tool (CP3), Novus3 turned to BBD in early 2018 to perform a diagnostic health assessment and make recommendations on the best way forward. This was the start of a very successful partnership.

Recognising the need for a tool that allows for the effective collaboration, prioritisation, budgeting, and implementation of capital projects, CP3, Novus3's unique offering, is an enabling technology for large organisations and government entities at any tier. The CP3 software service assesses the spatial priorities, economic, social and environmental impacts, affordability, as well as project readiness and contextual considerations to holistically prioritise projects.

The software even facilitates the development of a budget fitting strategy and allocates available capital in accordance to pre-determined groupings. Project managers are also able to track the timeous implementation of capital needs through financial and physical progress reporting.

The system assists technical officials, city planners, municipal CFOs and municipal managers to make informed decisions on how to spend capital in a way that is affordable, sustainable, environmentally responsible and responsive to a host of other diverse needs and considerations governed by a plethora of rules stemming from legislation. Bernard van Biljon, head of strategy and business development at Novus3, adds that capital investment planning is complex. Therefore globally, and particularly in the South Africa, governments and large organisations need all the help they can get to understand what their combined infrastructure and financial situations are, and how best to respond to this information in a sustainable and responsible manner.

The beauty of the CP3 web-based application lies in the graphical and geographical representations of the comprehensive data it collects. Users of CP3 have the ability to make complex data queries using a set of simplified tools, which includes spatially based queries, previously available predominantly in the ambit of specialised software suites and trained experts. Significant value addition to the data provides results that, inter-alia, illustrate the economic and socio-economic impact range for each project. No one else is currently offering a service of this nature and its value is increasingly recognised at local government level, with some of South Africa's larger metros adopting this solution.

Following the initial health assessment that was performed by BBD, Novus3 and BBD swiftly implemented the recommendations made, with BBD ramping up to take over as their technology partner.

Since then, they have been working together to further develop the software capabilities, while servicing clients in Africa and exploring opportunities in the United Kingdom, Namibia and Indonesia. Van Biljon goes on to add that partnering with a company that has global reach, a range of experts and capacity to respond to rapid scaling demands is reassuring and future-proofs our growth strategy.

A recent example of the partnership bearing fruit has been the seamless migration from local data centres to an Amazon Web Service (AWS) which allows for a highly scalable, elastic and highly available service, no matter where in world Novus3's clients are based. Utilising BBD's India and London offices has allowed for a near-shore and co-located solution for global clients, while their expertise delivering into African markets has been indispensable.

As a custom software development firm with 35 years of extensive technical and business experience, BBD leverages the knowledge of their technical specialists to thoroughly and systematically evaluate IT operations, identifying any potential shortcomings. Working together with the client, they can then implement the recommended solution, grow with you as necessary and follow through with ongoing maintenance and support. BBD wanted to get involved because projects that use innovative technology to spearhead improvements in the socio-economic spaces are not only exciting but endlessly valuable.

Novus3 and BBD are two companies who push the envelope in their respective fields. Their partnership has allowed for more effective project prioritisation and budgeting for municipalities, as well as for the development of comprehensive capital expenditure plans coupled with long-term, financial plans. The CP3 system has been deployed at a number of large and smaller clients in the local South African government space including the City of Tshwane, City of Joburg, City of Ekurhuleni, Stellenbosch, Midvaal, Sol Plaatje, Mogale City, uMhlathuze, Mogale City, Ray Nkonyeni and Steve Tshwete.

The meetings of the minds on this project has allowed not only the creation of this unique and very necessary software, but for the support and knowledge needed to take it around the globe.

Andre de Witt

BBD HEAD OF GROUP INNOVATION



esc@pe

2019

BBD's technology conference, esc@pe, is back and bigger than ever!

Held at the Hyatt Regency in Rosebank, BBD employees embarked on a day filled with learning, tech and fun! With 4 tracks to choose from, namely, Showcase, Development, Devplus and Analysis with 3 presentations in each, you were spoilt with choice on topics that may interest you.

Starting with an opening keynote from Don Packett, the crowd was quickly whisked into the classic story of how Lego became the brand it is today. Setting the scene for the day, everybody was eager to gain new insights and embark on their learning path, choosing which talks to attend.

Topics ranged from learning how to make a game to delivering the ultimate client presentation, as well as some pro tips on accessibility and getting down and dirty with Flutter, a new open-source UI software dev kit. A favourite was Lucky's 'To kill a working drone,' where the audience was able to operate a drone via Twitter!

During presentation intervals, staff could be found at the arcade where they would play and vote on employee-made games from BBD's very own Game Jam. Participants were given the theme 'worldwide' and had to make do by any means necessary! Overall all the games were a hit, with Trump Runs bagging first place.

The closing keynote on the shift in technology was given by John Sanei, a fitting end to a day packed with learning!

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





BRAG SHEET



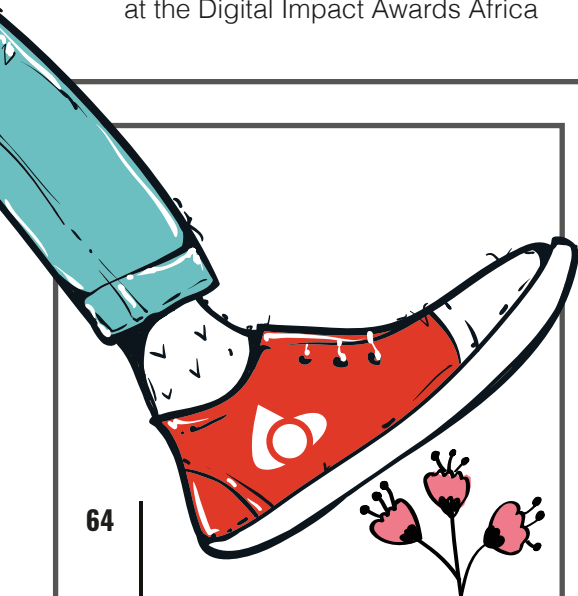
NOT JUST A PLACE TO WORK - A PLACE TO GROW

- › Offices around the world
- › Our staff visit our other BBD offices, both for work and cultural exchanges
- › Esc@pe, our annual internal tech event, allows staff to share and discuss key trends alongside leading industry speakers
- › Internal gamified Continuous Learning Programme that supports our sustainable culture of learning
- › The Hive is an onsite tech lab where staff can play to learn and even do a 3D print (or two)
- › We have ranked 1st in the My Broadband's Salary Survey for the IT sector
- › For years running, we have received a Platinum Seal in the Deloitte's Best Company Survey

- › Over 800 highly talented technology experts
- › BBD employs a Google Developer Expert in Web Technologies, one of only a handful across Africa
- › We have an inhouse Microsoft MVP
- › Our R&D team are super geeks, do ridiculously clever things and includes an astrophysicist
- › The R&D team facilitates continuous and varied learning to keep our teams on top of their game
- › Our staff are highly skilled with some having two masters' qualifications; we even have a resident Dr of Computer Science
- › We partnered with Vodacom to develop the My Vodacom App, which won Best Mobile App in Africa at the Digital Impact Awards Africa

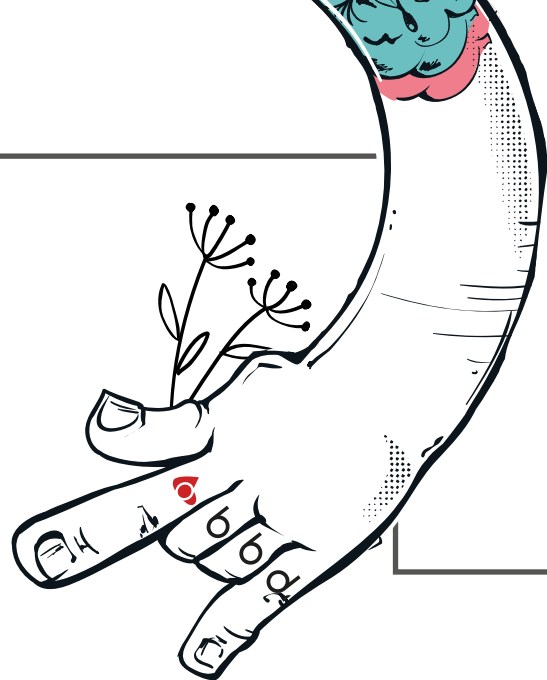
HEAD IN THE CLOUD

- › Microsoft Azure Gold Certified Partner
- › AWS Standard Consulting Partner and a CloudFront Global Content Delivery Network Partner
- › Our skills base includes Certified Solutions Architect Professionals
- › We employ one of the first AWS Certified Advanced Networking Specialists in South Africa



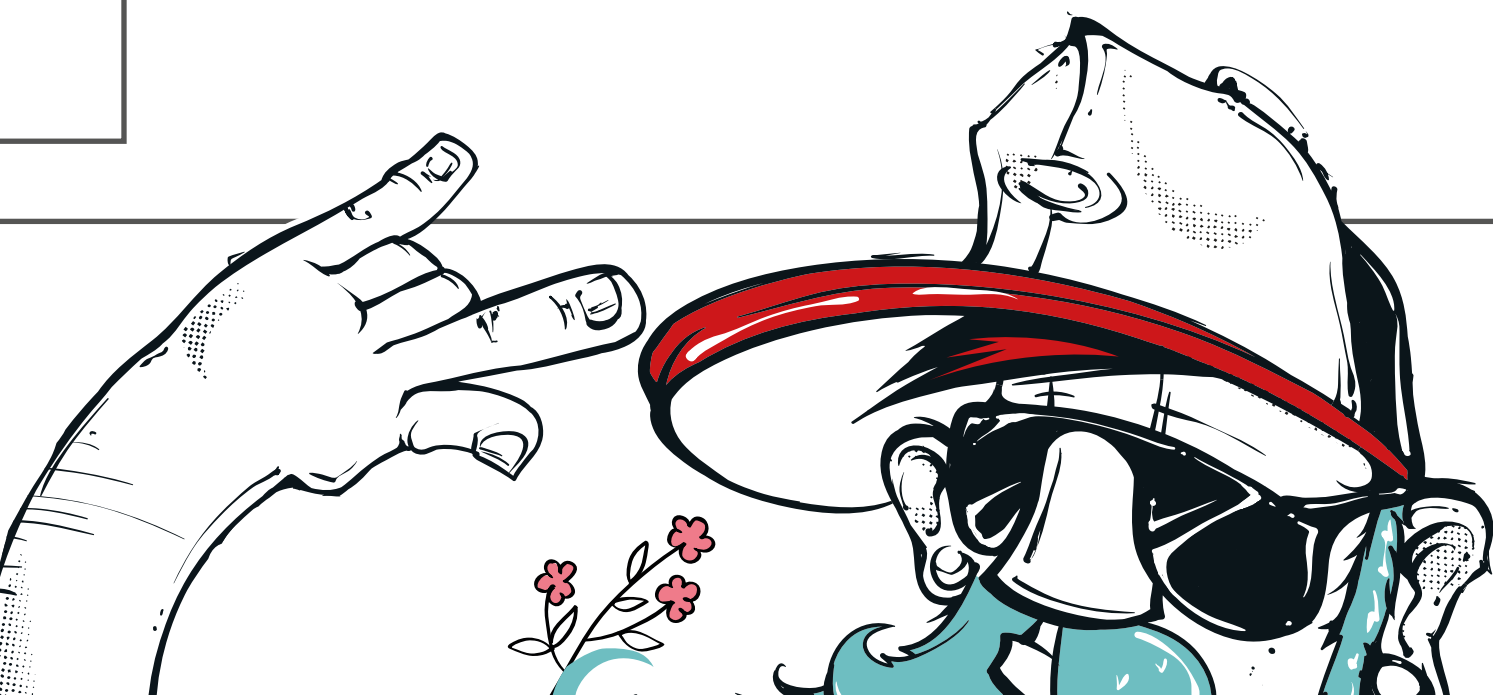
FIND US IN THE TECH PLAYGROUND

- › BBD frequently attends and sponsors leading industry summits and often cracks the nod to present
- › You can always find our talented speakers attending DevConf, SA's biggest software development conference
- › Official t-shirt sponsor at the very first DevFest
- › A BBD person was lucky enough to be chosen to attend the Google I/O in California, not once but twice!



EMPOWERING AN INDUSTRY

- › BBD is a level 2 B-BBEE rated company, proving our commitment to improving ICT skills and changing lives through job creation
- › Founding partner of WeThinkCode_ (WTC), a tech-based learning institution that offers free software education
- › We get the top 20+ WTC students annually
- › A WTC grad who works for BBD won FutureHack and attended the F8 Facebook Developer Conference in San Francisco
- › We strongly believe in encouraging women in technology and have founded a programme with Umuzi to empower young, talented female coders
- › As a GirlCode sponsor we support and host hackathons and workshops
- › We are heavily involved in the SA ICT community and regularly host MoJo, Jozi-JUG, AWS-JOZI, Docker-Johannesburg and Jozi.JS meetups



wethinkcode

Graduation Ceremony 2019

What had been a fantastic journey for the 2017 WeThinkCode cohort came to a close with their graduation on the 17th August at the Sci-Bono Discovery Centre in Johannesburg – the second cohort to graduate since WTC opened its doors in 2016.

We walked into the auditorium to be met by the excited graduates and their families, all eager for the culmination of the end of their journey as students. There were smiles from the familiar faces of BBD's 25 graduating students, many of whom singled the BBD representatives out to express their appreciation for the opportunity they had been given. As we sat down, a nervy atmosphere arose, almost a sense of "have we really done and achieved this in two years?", but this subsided as the introductions were made and the speeches began.

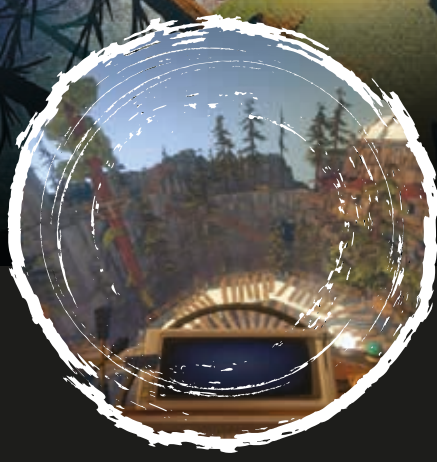
Gus, being the keynote speaker on the day, gave all the graduates an awe-inspiring speech about how, given their specific skillset and its impact, they are going to be future leaders, much in the same way previous engineers with different skillsets had been future leaders 25 years ago. He expressed this insight in a unique way by sharing success stories from our own graduates from both university and WTC backgrounds, and how they had had the right skills and attitude at the right time. He expanded on the current skills shortage within the global market and the importance of non-traditional programmes such as WTC in growing the talent pool and creating scope for opportunity and growth within this amazing industry.

After the speeches, the students were called up to receive their certificates from founding partner Arlene, as well as Gus. Each student brought their own dynamic to the stage by posing in diverse ways, highlighting just how different WTC is and why BBD sponsors and supports them in every way. On conclusion of the ceremony, the students gathered for the traditional graduation hat toss (sometimes clichés can still be fun) before showing off their achievements to their families and friends.

Chris McCully
BBD WTC TEAM



OUTER WILDS



It might sound odd to describe a space faring adventure like *The Outer Wilds* as feeling small and intimate. It's a game where you bounce between planets in an unknown solar system, as part of a rustic race of aliens on the precipice of space exploration seeking out the answer to the ultimate question: where did we come from? But for such a grand idea, *The Outer Wilds* feels comfortably palatable. Its planets aren't unimaginably large expanses with unending horizons and its solar system is small enough to travel in its entirety in a few minutes. Its secrets don't rest on what you imagine is beyond the curvature of whatever rock you're on, but what secrets each little crevice is hiding.

At a distance, *The Outer Wilds* is a peaceful exploration adventure game. As a new intrepid explorer of a small village on a forest covered planet, you set out into the great unknown to find answers to your own existence. There was life in the stars you call home now, but it's vanished with only a few traces scattered across the planets around you. Where did they go? What lessons have they left behind? And can they explain why you're reliving the same day over and over again?

The core of *The Outer Wilds*' gameplay loop is a mechanic lifted straight out of the likes of *The Legend of Zelda: Majora's Mask*. The sun that you orbit is a ticking time bomb, exploding exactly 22 minutes after you awake. Any discoveries or progress you make towards your next big breakthrough is carried over, but with each new life you need to use your past experience to push further into your journey for answers without letting time limitations get in the way. It's a compelling rush to have a mind-bending twist reveal itself just before succumbing to the intense light of another expiring star, only to be left reeling on where to take your newfound knowledge and apply it on your next run.

Death isn't a hinderance in *The Outer Wilds* like most other games. Instead it's a beautiful chance to reset and redirect your efforts. Not every run you have will be productive, but it's rewarding in itself to poke around *The Outer Wilds*' universe and see how it reacts. Learning when to visit which planets is crucial to progress too. The closely orbiting Hourglass Twins will slowly become impossible to traverse the longer to wait to land there, while a frigid asteroid will be seemingly

pointless to visit until it travels close enough to the sun to thaw. Not knowing anything about what this universe has to hide is part of the reason its revelations hit so hard, eventually culminating in a poignant ending that will linger with you long after the credits have rolled.

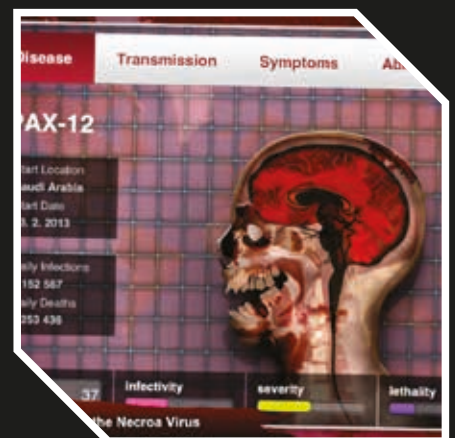
The Outer Wilds is a great adventure. One that takes established adventure game tropes and completely twists them in wonderful ways. It's a game that came out of nowhere but offers up so many pleasant surprises that it's difficult to put down once you've started to scratch the surface of what it has to offer. So, if you're looking for something different to your regular first-person shooter or next big blockbuster action game, it should be next on your list.

Alessandro Barbosa

BBD DISCOVERY BANK TEAM



Plague Inc.



Aaaachoo! *sniff sniff*.

Oh no. It has begun. Givitalickitus has been discovered in South Africa. One sneeze, one cough, one snuffle and before long the world's population will perish. Unless world class minds band together to find a cure to this new disease.

That disease is you. Can you outsmart the best doctors and scientists cause the mass extinction of the human race? Maybe.

I introduce to you a strategy game where you are the tiniest of tiniest terrorists with the biggest potential to wreak havoc. A bacteria, maybe a virus? A fungal spore? How about a neural worm that can lead the infected to display zombie-like symptoms?

Pick your starting country, and let the evolution begin. There are many factors to consider, like climate, antibiotic resistance and what methods to use to spread through the populace. Choose your symptoms, sneezing, coughing, insomnia? How about insanity, severe pneumonia or total organ failure? Spend your DNA points to evolve wisely. The combinations are quite varied but remember, the earlier you have symptoms, the earlier you will be detected which can allow the world to start developing a cure.

My personal strategy? Sneak though the populace. Travel via boats, planes, rats and birds. Then once you have reached every corner of the world? Ramp up those symptoms and hit like truck before they even know what hit them... Especially Greenland...I can bet

you that if there are ever survivors, it's in Greenland.

Check it out on Steam, it's a single player, co-op or competitive multiplayer. Challenge your friends to see who can destroy the world first. Or work together and demolish the population. With the different disease types that you unlock along the way, it provides hours of entertainment.

Also, did I mention it comes as a tabletop boardgame as well?

Antoinette Henn

BBD ACTURIS TEAM

Grow and glow

Get agri-cultured and prime yourself with plants that are blooming good for you. Evergreen could mean ever lean as you get into mint condition with your new found plant prowess.





Planting and growing specific plant species that are good for the environment is something we've encouraged before, but planting and growing plants (that aren't vegetables) that are good for you? Now that's a radical thought. Take a look at some of the most common, but unusual medicinal plants below and give them a try when you're struck with an inconvenient ailment – who knows, these might just be growing in your garden anyway!

IF YOU HAVE...	TRY...	HOW...
Constipation, vitamin C deficiency	Prickly pear cactus	Boil the fruit and eat whole or drink as a juice
Inflammation, burns, ear pain, ulcers	Houseleek	Drink either as a juice freshly squeezed from the leaves, or as a tea made from boiling fresh leaves in water for 15 minutes
Cuts, sores, nervousness	Jade plant	Keep it in your home for its positive "Chi" or apply a butterflied piece to a wound and secure with a plaster
Acne, insect bites or athletes' foot	Tea tree	Simmer in aqueous cream and apply to the problem area
Stress, anxiety or sleeplessness	Lavender	Either tie to your shower head, infuse in oil and apply to your pillow, or boil in water as a humidifier or tea
Sunburn or eczema	Aloe flesh	Extract the pulp and apply directly to problem area
Excessive bleeding or swelling	Catnip	Rub between your fingers then apply directly to the problem area
Cholesterol or lowered immunity	Dandelion	Eat the petals directly or brew as a tea
Fever or toothache	Marigold	Eat the petals directly or brew as a tea

Megan Clack
BBD MARKETING TEAM

This delicious soft berry-sized ball is made with milk solids, sugar rose syrup and cardamom powder. An Indian classic, this sweet perfectly accompanies festive and celebrative events, the perfect addition to your meal.



Treat time



Tear here

Gulab jamun

Ingredients

For the Gulab jamun

1 cup milk powder
¾ cup cottage cheese
3 tbsp all-purpose flour
2 tbsp semolina
½ tsp cardamom powder
1 tbsp milk or add as required
¼ tsp baking powder
Oil for deep frying the Gulab jamun

For the sugar syrup

250g sugar
1 cup water
1 tbsp rose water
1 tbsp milk (optional)
4 large eggs, lightly beaten

Total time 45 mins *Prep time* 35 mins *Cook time* 10 mins *Additional time* 2h 20 mins *Servings*: 20

Directions

Gulab jamun preparation

1. In a large bowl, mash the milk powder until there are no visible lumps. Alternatively sift it and then flatten
2. Add in the cottage cheese, all-purpose flour, semolina, cardamom powder, baking powder and milk. Work the mixture into a fine-crumb like texture until a soft dough is formed. Be sure to not knead the dough!
3. Make small balls from the dough, cover and keep aside whilst you make the syrup (see below)

Sugar syrup preparation

1. Dissolve the sugar in water in a large pan. Heat the sugar water until it becomes sticky. You do not need to remove the pan after. Turn off the heat before the syrup reaches a solid consistency
2. Add the rose water and stir
3. Keep the sugar syrup to the side. If it crystallises, then just add 2 to 3 tbsp of water and warm the syrup again

Frying instructions

1. Whilst the sugar syrup is cooking, heat the oil until it is at a medium temperature. Lower the temperature and wait about a minute and then gently place the Gulab jamun into the oil
2. Once they start to golden, rotate them in the oil so that they become evenly browned
3. When ready, remove the Gulab jamun balls and place on paper towels to remove the excess oil

Gulab jamun cooking directions

1. Place the hot Gulab jamun balls into the sugar syrup and continue frying the rest in batches until finished
2. Once all the Gulab jamun balls are placed in the sugar syrup, keep the pan on a low heat for 1 to 2 minutes until the Gulab jamun balls become soft
3. The low heat allows the Gulab jamun balls to absorb the syrup and become soft whilst they increase in size. Be cautious to not overcook, as this will cause them to break
4. Serve warm or at room temperature. Garnish with rose petals or almond slivers.

Enjoy!

Cocky Corner

Aug winner

Congrats to Mpho Mashau



Did you know crossword

Send your answers to marketing@bbdsoftware.com
by 3 February 2020 and stand a chance to win

1. What does the second 'B' in BBD stand for?
2. What is BBD a founding partner of?
3. What is our 30th birthday recipe book called?
4. What is the name of the BBD Johannesburg bar?
5. How old is BBD this year?
6. What programme was designed to help you master your destiny?
7. Who started as a junior developer in 1989?
8. Who is our longest running client?
9. What was the first computer ever bought by BBD?
10. In which centre did BBD experience its first power outage?



Diagram riddles

c i ii

THROUGH
THROUGH

idea an

is is is is is
is is is is is

Solve the anagram

- Arsenic refute
- Corn elvin roots
- Fair wells
- Cotton interloper

^PG ^PG



Holiday season is upon
us and even our green juice
drinking CEO has fallen prey



/company/bbd



/bbdsoftware



/BBDSoftware



/BBDsoftwaredevelopment



/BBDsoftware

