

Assignment 3: Our I.T. Project

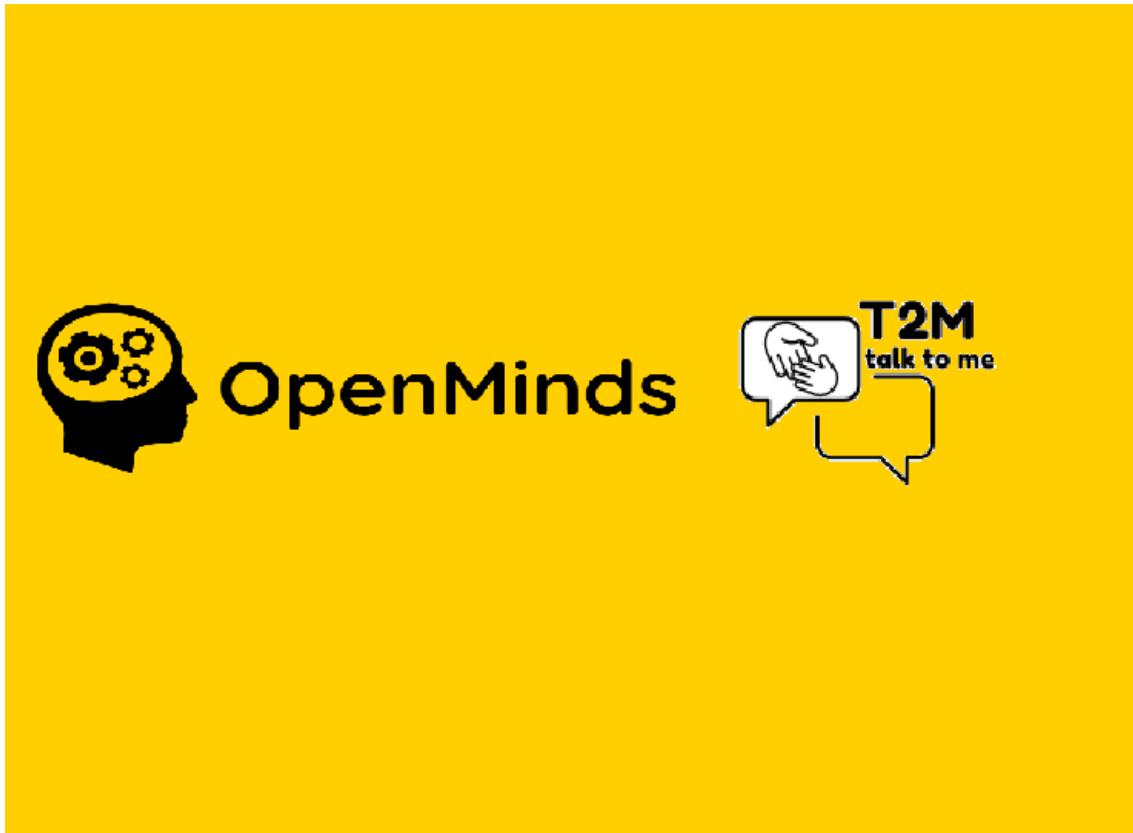


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Team Profile

We refer to our group as ‘OpenMinds’, and as part of our higher educational pursuits in I.T., we were required to form a group with our fellow students and expand our knowledge within this subject to produce a report documenting our learnings as well as formulating a plan to create an original I.T. project. The purpose of this assignment was to achieve core learning outcomes through: Enabling knowledge, Critical analysis, Problem solving, Communication and Teamwork.

The mission of ‘OpenMinds’ is to enrich our knowledge, education, and skills within the I.T. industry through active participation, collaboration and analysis, enabling us to achieve our career objectives and thrive within our chosen fields, as individuals and as a team. We believe we have achieved this mission in addition to the core learning outcomes.

To encapsulate the group’s research findings and project, we created a webpage with the use of GitHub pages to upload and display our work which can be viewed here:

<https://github.com/cpt110-openminds/assignment3>

<https://cpt110-openminds.github.io> Members

Team Members

Aaron Balkin

<https://ajbalkin.github.io>

Aaron Balkin is an aspiring entrepreneur looking to make it in the IT world. He is from regional Queensland; a small town called Beaudesert. Currently he resides in the Brisbane area where he works as a Patient Support Officer at the Royal Brisbane and Women’s Hospital while he completes his studies at RMIT. Aaron is also a tech enthusiast showing a strong interest in mobile technology, cryptocurrency and blockchain technologies.

Andrew Bonney

<https://s3529361.github.io/IT-Profile/>

Andrew Bonney is a part-time student at RMIT both on-campus and online study, his Student Number being s352936. His nationality is Australian however his background is English, Scottish, German, Irish, Dutch, Italian and Spanish so he comes from a varied background (despite only know a bit of Italian). His hobbies include but are not limited to video games, history, computers

(especially tinkering with computer hardware), sports (AFL, SANFL, NFL & NBA), listening to music and watching videos/TV shows. Andrew is quite interested in IT to the point that all of his careers in his adult working life has been in the IT industry and hoping to keep that way since he has early two years in IT experience. This current experience having worked a traineeship in 2014 at his former High School and his current position of employment as an ICT Support Officer for an Aftermarket Automotive/Airconditioning Company.

Carla Jilani

<https://furrucci.github.io/carlajilani.github.io/#>

Carla is a current full-time student studying to complete her Bachelor of Business at RMIT and is looking forward to advancing her qualifications in the area of financial planning. Having a background and experience in the 'Banking and Finance' sector, Carla understands the importance of I.T. literacy through the heavy reliance that this sector as well as many other industries have on I.T., and views technology as a crucial element in developing solutions to many of the issues society faces as a whole. In an effort to increase her own literacy skills in this area, Carla enrolled in 'Introduction to Information Technology' and as part of her studies joined the group 'OpenMinds' - a collaborative group of IT students exploring developmental ideas to make positive contributions to the mental health of youth across Australia. Whilst the group and concepts of OpenMinds are still within a formative stage, Carla is confident in the group's potential, and is enjoying contributing to the groups pursuits.

Lachlan Stevens

<https://lachlan-stevens.github.io>

Lachlan is 28 years old and living in Sydney, Australia, though he grew up a little further north in Newcastle. This isn't his first foray into tertiary education, with bits of pieces of a Bachelor of Communication, Bachelor of Business and a few Certificate IVs in the resume. In his free time, Lachlan enjoys spending time with his partner and their two cats. They're in the middle of applying for partner visa at the moment so his partner isn't able to leave the country, but once she's able to they'd love to take a trip to West Coast USA and Canada to visit Lachlan's sister. Lachlan first found his passion for IT quite young in life while tinkering and modding the games of the day. As he's gotten older, the necessity to deal with large datasets at work has gotten the wheels of industry turning in his head around how to deal with such datasets in smarter and faster ways. It's this exposure that has driven his interest in complex, data-driven cloud and web applications. In terms of experience, Lachlan has a bit of everything - having at least touched most popular languages. If asked where his most prominent skills lie, Lachlan points toward the below three as his strongest skills:

- HTML
- CSS
- C# - specifically around .NET Core and Unity.

Sean MacAulay

<https://s3821544.github.io/assignment/index.html>

Sean is studying part time as well as working full time as a Bottleshop Manager. He is looking forward to completing the Bachelor of Information Technology and moving into the IT Industry. Having exposure to the IT Industry at an early age due to his father being an IT Professional has left some deep seated questions about how it all works. From playing the original Doom to as an adult not quite understanding how the technologies around him actually work, he is curious about IT on a deep level. Looking to pursue something that will not only satisfy his thirst for knowledge but also give him an amazing career, IT is an amazing opportunity for Sean to better himself. Joining the group Open Minds is an exciting opportunity for Sean. It will allow him to collaborate with a group from various backgrounds, who are using this course as a platform to a variety of 8 other professions and jobs within IT. He is excited to not only gain knowledge but where he can add to the group to make the most of this opportunity.

Adrianna Mizuro

<https://amizuro.github.io>

Adrianna is a student of Business in Financial Planning at RMIT since last year. Previously she graduated with a degree in Dental Technology overseas and worked as a Prosthetist in Europe and Australia for a few years. Adrianna expects to graduate as a business professional with developed skills to achieve the financial planner qualifications. She knows that Information 9 Technology is incredibly diverse pathway, allowing to take her future business career in a vary of different directions. She has chosen to study the Introduction to Information Technology at RMIT to develop the foundation knowledge of contemporary technologies, software, applications and job skills required to enter the IT market. She currently works as a project administrator, with the requirement to have a basic knowledge of information technology and perform effectively in exchanging information processes with clients through different types of communication platforms. An opportunity to study IT will benefit her technological skills, allowing her to implement them at work and get the attractive job opportunities in the future.

Group Processes

Upon embarking on creating this project, the group gathered to plan and discuss the approach deemed necessary for completing this task. Much like with assignment two (2), the group has been working together collectively for several weeks, as such each member has established good rapport and a sound knowledge of the other members' talents and strengths and what processes

works for the group. The group was fortunate in obtaining members with compatible personalities and a shared drive to contribute and produce quality work, thus making for an efficient and productive study environment. The group thrived on the basis of inclusivity, respectful and regular communication, clearly defined roles and equal delegation. As such, the group employed the same methods used in assignment two (2) to create assignment three (3) and five (5). Due to the success experienced in assignment two (2) this approach was deemed appropriate and useful to be applied second time round.

The only changes introduced was to utilise 'Microsoft Teams' instead of 'Google Docs' to deposit individual works and documents. This was chosen in part for comparison sake of similar products; however, the main driver was to utilise additional attributes that 'Microsoft Teams' offers which Google Docs does not - specifically GitHub integration and operating as a chat-based workspace. This would enable the group to utilise many of the same universal features that google docs offers but would also allow users to participate in voice and video calls whilst collaborating on shared work. This would eliminate the need to utilise two platforms in the course of communication (Google Docs, & Discord), replacing them with one platform capable of performing both tasks with the aim of increasing productivity.

Career Plans

Aaron's ideal career in the IT environment would be a business analyst. General set of skills required for Aaron's job are Problem Solving highly demanded by employers, Analytical and Management Skills. Maintaining stakeholder relationships and Financial Industry knowledge also required. IT- Specific set of skills required for Aaron's job are Scrum and Agile software experience.

Andrew found that being a Senior Systems Administrator is an appealing job opportunity to him, because we would love to manage an IT Department in the future. General set of skills required for Andrew's job are Problem Solving, TeamWork, Troubleshooting and Organisational skills highly demanded by employers. Research, Analytical Skills and Multitasking in moderate demand from employers. Excellent verbal and written communication skills have been ranked very highly in terms of demand from employers. Strong technical documentation knowledge also required. IT- Specific set of skills required for Andrew's job are Microsoft Windows knowledge highly demanded by employers and Software Engineering, Microsoft Office experience. Server hardware knowledge and operation of Windows Server Operating System would be expected.

Carla's ideal career is to continue her progression in the banking and financial services industry as a Paraplaner. General set of skills required for Carla's job are Organisation, Planning, Writing and

Attention to detail highly demanded by employers. Research, Analytic Skills and Time Management in moderate demand and Interpersonal Skill would be expected to see. Excellent communication skills have been ranked very highly in terms of demand from employers. IT- Specific set of skills such as Microsoft suite and Xplan/XTools are required for Carla's future job.

Lachlan decided that being a mid level .NET Developer perfectly combines his interest and existing skills with those he's looking to further invest in. General set of skills required for Lachlan's job are Communication and Problem Solving highly demanded by employers, Analytical and Management Skills also required. Good adaptability to constant changes would be preferred. IT- Specific set of skills required for Lachlan's job are knowledge of JavaScript/JAVA and SQL highly demanded by employers and coding skills such as of C#, Moq, Unit, N Unit, CI/CD, Design Pattern and Net core, Css NodeJS, Azure/AWS, React/Angular/Vue.js, React-Native/ Xamarin, Umbraco would be expected to see by employers in the IT industry.

Sean would like to move into a new industry and work as a Business System Manager, using his knowledge and technical skills to simplify and improve the efficiency of business systems and processes. General set of skills required for Sean's job are Communication, Teamwork and Problem Solving highly demanded by employers, but also Quality Assurance, Control, Leadership Skills and Building effective relationships with stakeholders would be demanded from employers. IT- Specific set of skills required for Sean's job are Business Analytical and Management skills highly demanded by employers and Microsoft Office knowledge.

Adrianna's ideal job selection in the financial industry would be a Business Rescue and Insolvency Strategist, as the concept of finding the best financial strategies for businesses would be meaningful and rewarding to her. General set of skills required for Adrianna's job are Organisation, Planning, Teamwork, Problem Solving and Attention to detail highly demanded by employers. Time Management, Financial Industry knowledge and Customer Service Skills also preferred by employers. Excellent communication skills have been ranked very highly in terms of demand from employers. IT- Specific set of skills are Microsoft suite and Xplan/XTools required for Adrianna's job.

After having completed the comparison of the teams' required skill set to the current job market and their ideal jobs, their opinion in relation to their chosen career plans had not changed after receiving the feedback from Assignment 1 and 2. The following are their respective responses:

Aaron B:

After reviewing the feedback from Assignment 1 and 2 for the position, Business Analyst, the position is still appealing to Aaron for future employment. He has great interpersonal skills and his strong communication skills are highly ranked by future employers. Following up in more detail to

the received data during Assignment 2, the IT specific skills are listed are working with scrum projects. While it's in very little demand from employers, further skills that Aaron requires are; problem solving, analytical skills and management skills. Based on this data, Aaron will continue his career choice.

Andrew B:

Upon reviewing the feedback from Assignment 2 for the position, the Senior Systems Administrator is still a more than appealing job for future employment, given pre-existing experience, training and education in key parts being Microsoft Windows, Microsoft Office, Linux and Server is comforting to know that it aligns with requirements of that career role. Despite specific server knowledge not necessarily being in rather high demand, given the knowledge needed for Windows Server and similar server knowledge for Systems Administration will be quite useful and Andrew feels he is on the right path towards achieving his ideal goal and for the large part, received data during Assignment 2 seems to mostly align with the ideal job requirements and he is still quite enthused at the idea of being a Senior Systems Administrator.

Carla J:

When comparing the data received during Assignment 2 to the skills required for the position of Graduate Paraplanner, it can be seen that the general and interpersonal skills are well aligned with the skills that are in greatest demand according to the data. The I.T. skills listed: XPlan, and XTools however, are not in high demand in relation to the I.T. industry. This is due to the fact that the role of a 'Graduate Paraplanner' is not an I.T. specific role and therefore the I.T. skills and software required for this role are designed for the Banking, and Finance industry. Although, Carla's ideal job is not listed within the top three highest in-demand jobs for the I.T. industry, this has not been a deterrent for Carla as she understands there are different demands within different industries. It is collectively for this reason Carla, has not changed her opinion of her chosen ideal job of Graduate Paraplanner as her primary interest and goals are to pursue a career within the Financial Planning area, and she still views Paraplanner roles to be a viable and promising career choice.

Lachlan S:

After reviewing the data received during Assignment 2 with the position description for a Mid Level .Net Developer, Lachlan is reasonably happy with his choice of ideal position. The major skills relating to his ideal job are all high or moderately in demand, and while the other required

skills are listed as low demand, most of these are minor skills within the scope of the job and support the major skills. Based on this Lachlan will continue toward his chosen ideal job and feels his initial assessment of the role was strong.

Sean M:

After comparing the data received during Assignment 2 with the Business Systems Manager skill set, the data shows that this is a highly technical role that requires a strong communicator. The ability to recognise opportunities for improvement, communicate the ideas to a variety of people involved with the projects in a way they understand and having the technical know how to implement the solutions. The communication, teamwork and business analysis are highly sought after according to Burning Glass. After taking all of this in Sean feels his initial understanding of the role is accurate and is happy to keep with the same ideal job.

Adrianna M:

Received data during Assignment 2 is an important source of information and will be considered by Adrianna to she will be mindful about IT employment trends. Provided analysis from Assignment 2 will also help Adrianna in preparation during her education process to develop valued qualities appreciated by her potential employers. It has not changed her option about her ideal job selection, as an Insolvency Strategist is classified as an occupation in Financial Industry. However, it is worth to have a broader knowledge of employment requirements in the IT Industry, as it is a very dynamic and strongly growing environment, having a significant impact on many other industries as Finance, Business or Economic related sectors.

As a team we have outlined the similarities and differences of career plans across the group.

Aaron's Business Analyst ideal job and Sean's Business Systems Manager career plan are relevant and have a lot of similar elements. Both career job opportunities require Financial Industry qualifications, strong management skills and previous work experience in managerial position, and additionally ability to build and maintain stakeholder relationships. Another similar aspect between Aaron's and Sean's job is possession of problem-solving and strong communication skills. However, Aaron would have more direct customer contact, where Sean would work on leadership position in a team environment. What also differentiates both team members are necessity of having technical skills in the IT industry. Aaron is required to have previous Agile/ Scrum software experience. Sean does not necessarily need to possess coding skills, but ability to use of business software as Zendesk, IP Scape or SalesForce would be highly demanded in the Financial Industry. Additionally, possession of strong analytical skills is required for all group members to get the ideal jobs.

Similarly, Adrianna's and Carla's career plans require Banking and Financial Industry qualifications, time management and excellent communication skills within team environment but more importantly with the clients. However, Adrianna would have a frequent customer contact, where Carla might have a client contact on moderate level. Both ladies are not required to have the coding skills, but experience in usage of Microsoft suite and Xplan or XTools is demanded by employers, as their job roles are designed for the Banking, and Finance industry. Adrianna is required to have finance related customer service and accounting experience. Carla's Paraplanner job position requires skills such as planning, research, problem-solving skills and high attention to detail, which are much more valued and demanded than for Adrianna's ideal job as a Business, Rescue and Insolvency Strategist.

Lachlan's Mid- Level .Net Developer and Andrew's Senior Systems Administrator ideal jobs in IT industry have many common elements. Their advanced critical thinking, problem-solving, coding and language skills are highly demanded by employers. Both team members are required to possess great communication and effective collaborative team skills. However, Lachlan's job position put a focus on project management experience, where Andrew's job requires more troubleshooting, server hardware and software technology knowledge and strong technical documentation skills. What differentiates Andrew and Lachlan from the other members of this group is that they are not required to have a Financial Industry experience, as their career plans are designed for the IT industry.

Overview

Topic

Here at OpenMinds, we are dedicated individuals working together to achieve a goal to make an internet experience safer for the most vulnerable of our society, children. With the use of the internet being at our fingertips, content has never been abundant. This easily accessible content is usually quite harmless but rather helpful to an experienced user, which is why we are creating an extension to the most popular web browsers out there, Talk 2 Me (T2M). T2M, is a chat bot. T2M goal is to give children a safe space a place to talk about their lives, good or bad without fear of judgment from any human. T2M will be programmed through the Microsoft Azure platform as it has already the foundation laid out for use to build this platform.

As mentioned above, T2M is a chat bot but not just any old chat bot but a chat bot that has the ability use machine learning to build a Digital Mental Health Profile (DMHP). Behind the scenes, as a user is browsing the web, site hoping from site to site, T2M is analysing the content the user is viewing and comparing the content to red flagged items pre-determined by child psychologists here at OpenMinds. The content that T2M analyses will be from text and images results and will

measure how long they viewed said items for, and when did those items lead the user to next. Once a parameter has been by the red flagged items, T2M will automatically active to begin to attempt to have a conversation with user. Below is a scenario on how will work.

Scenario:

Kenny is a teenager that attends high school. He regularly uses the internet each day after school and as long as he can on the weekend. He is a high achiever at school and usually uses the computer for his homework before does any online social networking. One day after school he comes home and as usual, his parents aren't home because they work full-time and usually get home later in the evening. Ken isn't new to bullying and usually shrugs it off at the worst of the times but today was a little different. He was actually physically hurt along with being teased and bullied. So, when he got home, he wasn't his normal self, and skipped his homework altogether and started looking at content relating to self-harm. T2M, notices this change in behaviour (along with it being a red flagged item) and starts to engage with Kenny. Kenny spills about his day to the bot and the bot tries to offer some advice. Ken told the bot that he was feeling better but the T2M could still see that he was still looking at the same content well after the initial chat. The bot then decides to notify Kenny's parents as it felt the parents needed to intervene and assist Ken.

In the above scenario, this is one case where the bot knew something wasn't right and that it had to intervene. There will be many parameters in place some rating from mild and others to extreme where the bot will notify the correct authorities through OpenMinds about a child of concern. Our goal here at OpenMinds is to create a tool to make children feel safe and keep the parents minds at peace.

Motivation

OpenMinds is consisted of a highly motivated team. When came together in the beginning, we were brainstorming ideas about our future project. We were all throwing ideas around the room during our meeting but there was one common interest, internet horror stories. We all stories about our experiences online, from the bad and to the extreme. With our common interest in our online experiences, one conclusion came up, that our online activities do say a lot about ourselves. We also concluded that children could be the most vulnerable online. Catherine Knibbs, a child trauma specialist from internetmatters.org, says that children can be reluctant to let their parents into their online world. Which is concerning to us as many of us at OpenMinds are parents ourselves. With Talk 2 Me, we strive to make the dangers of the internet a lot safer and open communication between parents and children about their online activities.

Landscape

This product will be competing in an emerging market. Chatbots and Monitoring software is out there, however, I've been unable to find a piece of technology that does both. Our product will incorporate a lot of the features of both options on the market along with adding some more recent advancements to create a better platform. An example of a piece of software that monitors a kid is uKnowKids (UKnowKids 2019) it can store that information and have a parent read it back or if necessary, alert the parent when suspicious things occur. BetterHelp (BetterHelp, 2019) is an example of a therapy chatbot, however, neither software combines both options.

Detailed Description

Aim

The aim of this product is to provide parents with a tool to assist them with their child's mental health. With a wide divide of computer literacy among parents, it's important to provide an easy to use platform that would allow parents to install, set up and walk away. There are 4 major goals of this project; create a monitoring software that captures all usage, create a mental health database, create a chatbot that can tailor its interactions and reduce the impact of mental health problems in kids.

Having all the data captured from everything a child does is paramount to getting this right. If a child is being bullied inside a game or on Facebook, we need to capture the data for better analysis. If we don't have the correct data, the product won't be as effective as it could be.

A mental health database is vital to what we're doing as we are relying on this to cross-reference each child's information. If this isn't established the product won't work. By having a vernacular of mental health we'll have a much easier time highlight adverse behaviours.

A chatbot that is highly tailored is important. If we can't get it to speak "kid", we'll struggle to have them feel comfortable interacting with it. The chatbot also needs to address when it's time to escalate to some sort of outside help.

The whole point of this is to give children and their parents some help navigating what is fast becoming a huge societal problem. Not identifying these kids fast enough is creating developmental issues socially and in education. (Cook, 2019)

If we were unable to achieve all of this, the monitoring and database are the most important parts of this. If we could at least provide parents with a report of the adverse behaviour they would be able to follow up on their own. Whilst it would interfere with how we're trying to indirectly influence the situation; we'd also like to make sure this product would help in some way.

Plans and Progress

Before Open Minds had its name, we were discussing our internet horror stories. They went from concerning to extreme and we eventually got onto the topic of mental health and how parents who weren't very tech-savvy would struggle to monitor their children without seeming overbearing. A mental health extension for web browsers was a concept we decided could be very beneficial.

From there it was about figuring out the best way to execute a mental health browser extension. We explored how it would work. It would collect the data and upload to a database that would compare it to other users and the test cases. It very quickly became apparent a chrome extension wouldn't be the only part of this. This expanded to a piece of monitoring software that would also have a chatbot and an escalation process for at-risk behaviours.

At this point, we're able to create one extension for multiple browsers. This will help us to reach more people with fewer issues (Rousett, 2017). Although Safari is not supported it's easier to write 2 extensions instead of one for every browser.

Microsoft Custom Vision Service will be integrated into this as well. It is used to analyse pictures and determine what they are with a high degree of accuracy. As pictures often have unrelated names to what they're looking at it's important we use all the tools available.

We thought before we get too carried away, we should investigate the full scope of the problem. We quickly found out that it was a bigger problem than we thought. Almost one in seven children were assessed to have a mental disorder in the last 12 months. This equates to 560,000 Australian children and adolescents (Cook, 2019).

One of our big concern's is would the children interact with the bot. Would we be able to convince a child that we weren't their parent monitoring them and that the bot was their "friend." After discussing with a mental health specialist, we began to understand that it was possible, but it would be important to make a big effort to make sure all part of this project was executed properly. Failure to do so would derail the rest of the project.

As we are in the development stage currently, we don't have an IT infrastructure. We need to rent server space and build our initial database of information. All our concepts are currently being hosted locally or with external providers. Microsoft Azure currently holds our chatbot resources and we have a lot of our initial Mental Health research is stored in a GitHub repository.

The Browser Extension is planned as a keylogger that will record the child's online activity. This would then be uploaded at a frequent interval depending on how the child has been assessed. If the child is deemed to have non-adverse results it would be weekly. For adverse results, the timeframes would get shorter based on a scale of adverse behaviours and duration. As an end

game, we would hope to be able to live monitor and contact the appropriate people in an extreme circumstance.

We have a chatbot that works however without the back-end information it's very basic. The chatbot we've chosen to use is the Azure Chatbot. We're using it to understand how the chatbot works and how customisable it is. The chatbot will require comprehensive testing to make sure children are interacting with it as a tool and not a novelty or chore.

For the algorithm to be feasible it will require a significant amount of test cases to generate an effective, initial algorithm. It will have to be a combination of Machine Learning methods. Initially, a Naïve Bayes may be useful, we would then follow this up by using unsupervised learning and then Reinforcement Learning to highly optimise the algorithms. We want to initially identify the common

language, themes and websites they visit at least give us some understanding. Using just Naïve Bayes would present an issue down the track where we may not be able to identify correctly risk factors. Given the way, new words enter our vocabulary and different regions use different slang we'd be reckless to rely on a setlist of words as a Naïve Bayes is designed to.

Once the algorithm can identify cases with adverse results it will then need to be further tested in a live trial. This will be by installation on a group of children's computers. These test cases will be manually checked by our professionals and compared against what the algorithm concludes. After the initial test, we'd require a second bigger test in another market i.e. USA or the UK. Just to make sure the algorithm isn't constrained by dialect or colloquialisms.

The database will be an important part of this. Because we'll be comparing User's data to the database, we'll need to make sure we're able to accurately retrieve data where words may have multiple uses. For example, the colloquialism "That's Sick!" By itself, it could be positive or negative. We'd need a frame of reference for the commenting meaning we'd need the algorithm to be able to quickly access the database and figure out whether it's a good or bad term. Keeping this in mind, we'd be looking to develop with NoSQL.

NoSQL will afford adaptability for this concept as we generate better information, we can easily change database structures to create a more optimised experience. The other huge benefits especially since we're dealing with sensitive information this database style is highly secure and easily scaled. As soon as we got a working infrastructure, we could easily scale to meet the demands of our client base. (MongoDB, 2019)

We will need to consult the appropriate legal representatives. We want to make sure we're not going down a path that could get us in hot water. This would mean consulting around child safety, how we must store certain data and making sure we craft an End-User Licence Agreement that prevents us from any litigation that may arise from heavy reliance or misuse by an end-user.

Future Plans

When the application is ready for market, we'll need to create a series of tutorials. They'll have to be text-based and videos detailing how a parent should use the software effectively and react to alerts. The main idea being parents understanding their role within the situation to avoid unnecessary stress being placed on the child.

It would be beneficial from early on to partner with a mental health organisation. Not only to lean on their resources around mental health, but it would also give us a credible and trustworthy endorsement. It may open doors for us we couldn't previously. The better the help we have the faster we get to market.

As a potential partnership much further down the track it may also benefit us to partner with a virus protection company. If we could combine resources with one of these companies, we may be able to improve firewalls, safe modes for parents or even potentially piggyback on their hardware to make it more beneficial and less invasive for the end-user.

A big part of the potential going forward is the ability to analyse a child's voice. We see the potential for adding a voice function for our bot. This would allow us to engage the child in a way they find more comfortable and less effort than typing. There is also some excellent work in Machine Learning

being able to determine your mood based on your tone (Balakrishman, Anusha). This is in its infancy and would be something considered much further down the track.

Music is a powerful mood enhancer. People who are depressed often gravitate towards sad music to reinforce their negative thoughts. We would add playlist monitoring as another extension to the application. Whilst everyone will occasionally listen to sad music, someone who is constantly listening to it should be monitored (Andrei, 2019)

A cornerstone of this endeavour is providing parents with better information. Once the business has proof of concept we would like to partner with schools and any other children's mental health organisation to set up meetings with parents. This would be a seminar around utilising our software better, things our application might miss and an up and coming section surrounding the technologies we have in the pipeline.

Overall this will be a complex and lengthy process to get it to market. We will probably come across some dead ends due to how big our idea is. We will certainly have to pay attention to emerging processes and ideas in our space to make sure we provide the best product we can. If we can make everything here work, we should be right in line with what we've aimed to achieve.

Roles

It is sometimes useful to define roles for particular participants, such as Lead Developer, or Technical Designer, or User Interface Designer. It is also possible that roles are changed from week to week, depending on what needs to be done next. Have you defined any specific roles for your project? If so, describe and justify these. If not, describe your process and justify why there are no specific roles.

Consignment of specific roles in the context of an actual product/app launch (Tech Startup) was addressed and assigned according team member strengths and interest as follows:

- **Founder - Aaron B**

Aaron as a founder of “Talk To Me” launched this start-up company and has a clear vision of our product app. He possesses necessary technical skills in web development languages, HTML and CSS, helping him to have a basic knowledge how to host and run our website. Aaron also has a high-level understanding of the key skills needed to establish a tech-driven company. As a strong leader, he guides the team through any matters to attain our group goals. He developed strong interpersonal skills allowing him to manage the people and know how effectively communicate with his team. Part of the Aaron’s role of being a start-up founder is making the choices that contribute to the progress of the company. Aaron has an ability to think critically and developed problem-solving skills, helping him to determine the best decision for our project. In order to his founder’s perseverance and persistence, he stays open to change direction of executing initially set plans. He sees that openness for change is the key to the long-term success of the project. He listens and supports valuable suggestions or team new ideas to achieve a satisfactory final effect. He consistently stays focus and puts his efforts to search for new trends, tactics and opportunities for improvement and to achieve the best possible results to accomplish the project.

- **Lead Web Developer – Lachlan**

Lachlan is responsible for generating the code, design and layout of a web app. Due to limitation of our human resources, Lachlan took also the role of a web designer to create the professional look and feel of a web app and also programmer to produce the website. Lachlan possesses the key skills needed in front-end web development, such as HTML, CSS, JavaScript languages or experience in server-side frameworks. He has a strong communication and collaboration skills. He has the ability to multitask with strict time constraints and group project goals. Whenever the website is needed to expand or to be rebuilt Lachlan has a great ability of writing efficient code to meet project’s group requirements. He is also responsible for researching different software programs and implementing his knowledge to optimize the final product and improve the functionality of created web app.

- Project Director/Management - Carmen W

Carmen plays an important organizational role in this tech-driven project. She sets the strategy, provides a careful expertise of the product, as this practice is required to lead the project from an app conception all the way through to its launch. Her position may also include marketing, customer development, pricing and financial modeling responsibilities in the further phases of the project. Carmen is in constant communication with the project group to develop and deploy their content and ensure there is a clear establishment of what can be created within what timeframe. She leads and supports the cross-functional team to bring the product to life. Her role of a project manager requires a market research based on data analysis and provision of competitive solutions to deliver valuable product based on customer needs.

- Data Science/Analysis - Sean M

Sean's role as a data analyst is to organize and collect large amount of data from different sources. Then he evaluates and draws insights from it to present the reports and actionable recommendations allowing our start-up project to make the right strategic decisions. His role requires experience in using statistical computer languages such as Python and database systems SLQ to manipulate and draw insights from data sets. He also possesses coding knowledge and experience with several languages applicable and valued to successfully complete our project. Sean's role spans many activities from data scientist and analyst to machine learning engineer. He is involved in creation and development of the artificial intelligent machine to perform specific tasks, but also programmed in the way enabling this machine to apply knowledge without specific direction. Sean has also strongly developed communication skills needed in the situation to explain machine processes to people who are not programming experts. His great analytical skills are also required as his role involves presenting outcomes and issues that need to be resolved to make project programs more effective.

- Liaison Officer - Adrianna M

Adrianna role's as a liaison offer is to work between our start-up company and the other entities to coordinate communication and operation processes and ensure that any kind of matter are resolved. She consistently searches for solutions to improve workflow and efficiency, assists the other team members with daily activities and communicate the strategic objectives of the start-up business. She also possesses excellent communication skills and a strong desire to create processes and procedures which benefit the team. She is an organized and motivated team member able to creatively solve problems. Adrianna as a liaison officer possesses analytical capability to perform an expertise based on collected data and provide a feedback to identify opportunities to

improve relationship between both parties. She is able to compile required reports about significant events or updates for the company.

- **I.T. Systems Administrator - Andrew B**

Andrew's role as a I.T. Systems Administrator is to perform timely configuration and monitoring of our project's computer systems. He works closely with the team to ensure unified performance and operation. His Systems Administrator role consists of many activities such as designing new computer systems and server performance for our team, optimising and leading processes improvement. In addition to the above duties, he troubleshoots technical issues and provides support for Firewall and network system. He also may be required to plan risk mitigations to ensure systems security and protection from breach or viruses. Andrew possesses valued key soft skills that are critical to success to his role such as high-level problem-solving and capability to think critically. He also has strong collaborative and communication skills.

Scope and Limits

A living, learning chat bot with the capability to analyse rich data around search terms and the content being delivered and displayed to a user is a complex endeavour and one that is simply not possible to fully implement within the provided timeframe. As such, we have set well defined limits to the scope we are looking to implement within this timeframe.

Realistically, there are three broader epics within the larger project itself that will provide a minimum viable product that could be tested and piloted with a small subset of users to gain insights as to the system's capabilities.

These three aspects could be classified as front end design, front end programming and back end.

The implementation of a well developed backend will allow for the rollout of the chatbot to a multitude of different web browsers and even more diverse platforms. The backend would be implemented within azure cognitive services to analyse text and images to analyse sentiment and risk factors that could indicate an individual vulnerable. The use of machine learning services would allow the rules around this analysis to be refined on an ongoing basis to ensure the application is more accurately identifying risky and vulnerable situations, but we have chosen not to attempt to implement this as part of our MVP as it would require a dedicated Data Scientist to set up and have oversight of the machine learning process.

Access to this service would be provisioned as an API to allow modular development of customer-facing implementations of the bot through a number of different avenues. In the realm of browser extensions, many of the main players such as Google and Mozilla have very similar and compati-

ble implementations of browser extensions, allowing easy expansion to further platforms. However as part of our MVP we have chosen to aim toward implementation within Google Chrome as our first target due to the userbase majority Chrome holds.

The front end programming targeted within our MVP would allow the extension to monitor text and images presented within pages the user is browsing, and communicating these back to the back end for analysis, and injecting the visual front end on to the page the user is visiting should intervention be deemed necessary. Out of the scope within the realm of the MVP are any sort of light-weight analysis completed on the client side to strip out obvious low-risk content, however to reduce network load on the user and the back end this is something that may be considered moving forward.

Finally, with regards to the front end design, we expect a fairly complete offering to be able to be made as part of the MVP, as the front end visuals are unlikely to change with implementation of further back end or back-of-front end features.

Tools and Technology

Here at OpenMinds, we will be striving to take advantage of the most advanced technology to develop our chatbot. For the initial development course, we will be using Microsoft azure as our foundation for our development. We chose Microsoft azure because this service has a lot of the foundation needed to get ahead in the chatbot technology. Listed below is the technology that we will use and experiment with offered by Microsoft azure:

- Artificial Intelligence
- Chatbot services
- Machine learning
- Security services
- SQL Databases
- Online Storage (of personal information)
- Microsoft custom vision service
- Computer Vision

The list of tools and technology listed above is new to us here at OpenMinds however Lachlan, our lead developer for this project has some experience with SQL databases and storage of personal information. However, with our initial tests, the team is having no issues in learning and using the new technology.

However, the tools offered by Microsoft azure are not the only tools we will be using. To build this bot as a browser extension we will have to rely on other the browsers themselves. Initially we will

have to code the browser using a text editor such our favourite, Atom and utilise the code from CSS, HTML and JavaScript to create the extension. As Atom is a free to use software, we will not have to license the software for use. As most of us at OpenMinds live in different states and locations within Australia we will not be able to have a home office at this present time. We will have to rely on the premium version of GitHub to share, edit and make new developments with Talk 2 Me. We will then utilise the API's from the Microsoft Azure platform to make and host Talk 2 Me.

To develop the Talk 2 Me software, we will be using Microsoft Windows compatible hardware as it is the most versatile with the tools and technologies that we have chosen. These PC's won't have to be overly sophisticated to develop Talk 2 Me, so we will only require a mid-tier level PC. Other software not listed above, which we will still have to license and subscribe to:

- Windows 10 Enterprise
- Office 365 Business, which includes all the Microsoft Office suite and services including;
 - Exchange, OneDrive, SharePoint and Microsoft Teams.
- Trend Micro security (antivirus and anti-ransomware)

The above tools and technology, software and the hardware, the OpenMinds team will be able to successfully create the Talk 2 Me chatbot. We hope to create more transparency with parents and children and to protect them in the online world.

Testing

The project will be testing first through the programming tools used to create our project, most programs such as Notepad++, Visual Basic etc offer live testing of the program in action on a local computer that doesn't necessarily go live out on the internet, with further tests down the line to be conducted on a local intranet for further tests for more accurate readings as well as Microsoft Azure's AI tools for the chat bot testing such as saying "Are you okay?". We will know this project has succeeded when our project using AI technology successfully identifies problematic search results that hint towards self-harm or suicide and prompts the user if they're okay as well as identifying company staff of serious, evident indicators that an attempt on a person's life is going to be made where it can be sent off to the appropriate authorities for intervention and a live trial of this being conducted successfully is how we would know the project has succeeded, as well as testing it being implemented on Google Chrome Store before formal release. In terms of potential who will actually be testing, members of the company will be trial users until the project nears completion and for live testing with proper feedback, it will require children between 12-17 with permission of their parents to trial the product with their backgrounds being in school or in any situation where there could be issues in their lives for accurate readings, though the only mandatory testing is the age demographic as that age bracket are most likely to use the internet on a daily experience with less

monitoring by their parents contrast to younger ages who require actual training to use devices for the internet and have less independence on their internet habits.

Timeframe

To assist in the planning, development, and management of the Chatbot not only as an idea but also as a tangible product the following timeframe has been established to help measure and track the progress of individual team members, the group as a whole, and the progression of the T2M chatbot.

The purpose of this timeframe is to compliment and support the overall plan in order to bring the I.T. project into fruition. This is not only to demonstrate the team's skills and talents but also to further support progression of the project and further their understanding of the I.T. industry and current I.T. trends. This is to further the development of the plan and the prototype, itself along with any other artefacts produced in production.

This will be demonstrated via the team members ability to work successfully as a team, whilst collaborating and completing relevant research tasks with the goal of producing a professional report to support the group's pitch to prospective mentors and investors.

Week	Task/ Item Milestone	Assignee
Week 1	<p>(14-18/10/19)</p> <p>Further development of project idea description & first draft/assignment preparation:</p> <ul style="list-style-type: none"> • Website design - (Complete) • Team Profile - (Complete) • Interview Questions - (Complete) • Group Mission Statement - (Complete) • Psychologist Questions - (Complete) <p>(11/10/19)</p> <p>Review Progress of A2/Project idea concept</p> <p>Review individual member progress and delegation</p> <ul style="list-style-type: none"> • Project Idea Selection - (Complete) • Skill Set & Data Analysis - (Complete) 	<p>Group</p> <p>Lachlan S</p> <p>Group</p> <p>Carla J</p> <p>Carla J</p> <p>Adrianna M</p> <p>Group</p> <p>Group</p> <p>Aaron B</p> <p>Adrianna M</p>
Week 2	<p>(21-25/10/19)</p> <p>Finalisation of first draft preparations.</p> <p>Completion and Submission of Assignment 2 - (Complete)</p> <p>Address outline and ideas for Assignment 3 and begin making preparations.</p>	<p>Group</p> <p>Group</p> <p>Group</p>

Week 3	<p>(28/10/19-01/11/19)</p> <p>Review and discuss assignment 3, 4, & 5 outline and requirements.</p> <ul style="list-style-type: none"> • Discuss Project Description for A3 in further detail • Discuss and consider delegation of tasks if any for A4, A5 • Set timeframe and deadlines for A3, A4, A5 • Submit storyboard/script and PowerPoint components of A5 	<p>Group</p> <p>Group</p> <p>Aaron B, Sean M,</p> <p>Group</p> <p>Andrew B, Carla J & Adrianna M</p>
Week 4	<p>(04-08/11/19)</p> <p>Begin work on underlying tasks for A3:</p> <ul style="list-style-type: none"> • Overview - Topic • Overview - Motivation • Landscape and Aim • Plans & Progress • Roles • Scopes & Limits • Tools & Tech • Testing • Timeframe • Risks • Group Processes & Communication • Skills & Jobs 	<p>Group</p> <p>Aaron B</p> <p>Aaron B</p> <p>Sean M</p> <p>Aaron B & Sean M</p> <p>Adrianna M</p> <p>Lachlan S</p> <p>Aaron B</p> <p>Andrew B</p> <p>Carla J</p> <p>Andrew B</p> <p>Lachlan S</p> <p>Adrianna</p>
Week 5	<p>(11-15/11/19)</p> <p>Finalisation of first draft for assignment 3, 4, & 5</p> <p>Make final preparations for submission of A3, A4, A5</p>	<p>Group</p> <p>Group</p>
Week 6	<p>(18-22/11/19)</p> <p>Submission of A3, A4, & A5 (Start of 10 weeks)</p> <p>Upload relevant tasks/elements to GitHub repository per each team member:</p> <ul style="list-style-type: none"> • Team Profile - Recycled • Team Profile - Group Processes • Team Profile - Career Plans • Overview - Topic • Overview - Motivation • Landscape and Aim • Plans & Progress • Roles • Scopes & Limits • Tools & Tech • Testing • Timeframe • Risks • Group Processes & Communication • Skills & Jobs 	<p>Group</p> <p>Group</p> <p>-</p> <p>Carla J</p> <p>Adrianna M</p> <p>Aaron B</p> <p>Aaron B</p> <p>Sean M</p> <p>Aaron B & Sean M</p> <p>Adrianna M</p> <p>Lachlan S</p> <p>Aaron B</p> <p>Andrew B</p> <p>Carla J</p> <p>Andrew B</p> <p>Lachlan S</p> <p>Adrianna M</p>

Week 7	<p>(25-29/11/19)</p> <p>Conduct Market Research:</p> <p>Review project idea overview and clearly determine motivation, the problem being addressed by the idea and how it will be solved by product/service/chatbot</p> <p>Conduct survey of people/youth effected by mental health issues (potential customers) - review results, assess competition/market need (Research needs to be kept to help secure potential funding)</p> <p>Create & Develop a 'Growth Strategy'</p> <p>Use social media such as Twitter, YouTube, FaceBook, Instagram to advertise</p>	Aaron B, Andrew B, Lachlan S, & Sean M
Week 8	<p>(02-06/12/19)</p> <p>Decide/Confirm branding</p> <p>Identity for idea etc. (Conveys experience of chatbot and problem is aims to solve).</p> <p>Research possible affiliates to the branding chosen.</p> <p>Secure website domain and associated marketing materials and requirements.</p> <p>Internalise elevator pitch so all team members know exactly what to say to anyone enquiring about the chatbot/software.</p>	Group
Week 9	<p>(09-13/12/19)</p> <p>Secure intellectual property</p> <p>Ensure no copycat breaches have occurred (even inadvertently), no non-compete agreements etc.</p> <p>File patent/trademark/copyright.</p> <p>Establish new company and trustee entities</p> <p>Research & Establish Start-up Cost Assumptions/Estimations:</p> <ul style="list-style-type: none"> • Bond/Rent • Property Insurance • Any Liability Insurance • Utilities • Renovations & Fit-out Fees • Licensing & Legal Fees • Technology & Software Costs • Payroll/Salaries • Accountancy & Consultation Fees • Operating Supplies • Estimate profits & revenue 	Carla J & Arianna M
Week 10	<p>(16-20/12/19)</p> <p>Incorporate further</p> <p>Establish appropriate company/business structure for preferred tax liabilities and structure.</p> <p>Equity compensation when capital is raised.</p> <p>Where to incorporate (different states entail different tax requirements/exemptions).</p> <p>Delaware-based corporation have favourable corporate law practices.</p> <p>C Corporations more favourable to venture capitalists</p> <p>Assess Tax Exemption Eligibility (if any).</p>	Carla J & Arianna M

Week 11	(23-27/12/19) Choose a co-founder (if needed) Consider track record and compatibility with original founder's teams skill set and ensure they are complementary to the end goal/concept.	Group
Week 12	(30/12/19-03/01/20) Write/Establish business plan Write/Establish Mission Statement Clearly define principal members Utilise market research Create and clearly define approach to establishing the business/company	Carla J & Arianna M
Week 13	(06-10/01/20) Decide/Determine a workplace/base Location and environment will affect the start-up	Group
Week 14	(13-17/01/20) Find a mentor/business coach appropriate to concept/industry/and goals wanting to be achieved. Determine when and how to hire additional staff/team members: User Experience/Design manager - Hire Digital Marketing - Hire Threat Ops/Ethical Hacker - Hire Chief Financial Officer (CFO) - Hire	Group & Co-founder (if one is obtained)
Week 15	(20-31/01/20) Apply for an accelerator program/government grant Find an appropriate start-up assistance program Raise Capital - determine how much is to be raised and how this will affect the start up. How will it be raised angel investor, venture capitalist firm, Shark? Practice the pitch.	Carla J & Arianna M

Risks

There are various risks to the project ranging from software related issues such as software used to program this project, to privacy concerns such as what information will be retained if any to security issues such as safeguarding against various security breaches where data can be stolen, especially personal and confidential data.

Software risks are minimal though sufficient enough to pose delays in terms of training or incompatibilities with the project. In order to construct this project it will require someone who is proficient with programming languages (Such as JavaScript, C++, etc) and Mark-up languages (HTML), will require someone in Systems Administration & Networking to setup servers and networking services for this project so that users and the software are able to communicate between each other &

the servers they are hosted on. As this project will likely be developed on mobile devices such as iOS & Android, people who are capable of programming and implementing the project on these devices will be needed as well. If people are not quite fully equipped with certain tasks to use certain programming software then time aside will be needed for training as well as looking into programming languages and programs that are cross-platform compatible if a wider market is to be reached.

Privacy is a major concern and risk of this project tying into the security risks of this project as well. Given the fact that this project tracks search history, live search results and in extreme cases of physical, sexual abuse or child exploitation (be it from searched results on the internet or chat from a child to a live bot), what is being stored and what isn't could be a privacy concern especially if personal information were to be stored (In this project it is unlikely that accounts are to be created with required information). Given the sensitive subject at hand, the privacy matter may be an issue with getting the software distributed in certain regions such as the European Union who have strict laws on tracking and using data, stored or not, as well as the ethical matters of having software tracking such sort of things despite the targeted audience from a legal perspective needing their parents permission and guidance for most things anyway, not just limited to the internet. Security is a big risk for this project and considering the sensitive data that could be stolen can have real world risks to a person's mental health. Depending on the implementation of this project in regards to how users sign up and sign into our service, if there is a data breach on Open Mind's servers then potentially any sign in information such as their real name, e-mail address, street address or any other personal information could be leaked and stolen if proper safe guards aren't implemented, especially if the user's computer is infected with malware such as a keylogger that records a user's keystrokes to steal passwords and other confidential information. Speaking of data breach, if Open Minds decide to branch out the software to mobile platforms such as IOS & Android to be distributed through Apple's App Store or Google's Google Play, it would have to rely on Apple & Google to ensure their distribution stores as mentioned above are secure and not disturbing malware that can steal data, which is highly unlikely as seen here with Google and here with Apple.

Adding on to distribution methods, since this project is primarily aimed at being added via browser extension (such as AdBlock Plus), if it is hosted on Firefox/Google Chrome's Web Store then depending on how the extension is created, any new exploits targeting certain website protocols or codes will be need to be patched and monitored to avoid data breaches. If our project is being hosted on a website itself (such as our company website), the website will need to be safeguarded from any malicious breaches (Cloudflare is an example of what this website could be protected as they offer services to protect from DDoS attacks or provide SSL/TLS encryption).

Group Processes and Communication

In order to keep everyone on the same page in relations to our progress on the task and our expectations of the output, we have adopted a policy of complete transparency around any road-blocks we are facing around progress on the project.

We have been aiming to have two meetings per week with all group members in attendance, so that we can discuss the project holistic and have an “around the grounds” discussion of each member’s task and the progress being made toward them. In addition to this, smaller discussions are held with only the members working on a particular task or those with interest of expert knowledge of the task.

Skills and Jobs

Let us suppose that a group of venture capitalists hears about your project, and is so impressed that they wish to fund you to develop it further for say six months. You will be the manager of a team of 4 people to deliver the project outcomes. What position description would be appropriate? Write 4 position descriptions for people that you would employ to take your project to the next phase. You will need to consider what skills are appropriate, which may include specific technical expertise, team work experience, leadership and management techniques, and innovative thinking.

Four attractive job position descriptions for duration of six-month contract funded by a group of venture capital investors to take the innovative web app project to the next phase.

Opportunity

I am working in partnership with a six-member interstate group located across Eastern Coast of Australia. We are a start-up company supporting the community with social impact to offer seeking an experienced:

- Penetration Tester/ Ethical Hacker
- Digital Marketing Manager
- User Experience (UX) Designer
- CFO

For a 6 month contract starting at short notice.

Benefits

- Attractive daily rate based on your experience
- Opportunity for a contract extension

- Positive team culture and supportive environment

Penetration Tester/ Ethical Hacker – Job Description

Responsibilities

- Identify and solve security problems with computer networks
- Perform penetration testing and risk analyses and vulnerability assessments across entire network including hardware and software systems
- Develop and update business continuity and disaster recovery protocols
- Work towards compliance with the selected security standards and frameworks
- Deliver detailed technical reports and documentation for security findings to team members and executives
- Define and implement company security policies and procedures that help staff use best practices for digital security

Required Skills and Qualifications

- Analytical skills to review data to identify potential issues with computer network security
- Communication skills essential to clearly explain vulnerability results and risks to staff and clients
- Exceptional problem-solving skills
- Previous computer programming code experience and latest penetration software is essential
- Experience in the network security and a working knowledge of Microsoft and Linux command lines, virtualisation and Microsoft Exchange
- Ability to develop new and innovative strategies to identify issues with the security systems
- Position requires a bachelor's degree in a related field such as programming or computer science
- Recognised certifications such as Certified Information Systems Security Professional(CISSP), CEH Certified Ethical Hacker (CEH) highly regarded

Digital Marketing Manager – Job Description

Responsibilities

- Design and manage all aspects of digital marketing and email marketing, branding database and display advertising campaigns
- Develop and monitor campaign budgets

- Plan and manage social media platforms, search engine optimisation, online advertising and content creation
- Report on marketing campaign's overall performance and other digital projects
- Coordinate with advertising and media experts to improve marketing results.
- Combine traditional marketing tactics with the latest trends and technologies affecting technology industry
- Evaluate factors affecting web app traffic, service quotas, and target audience.
- Collaborate with our team to look for new and innovative growth tactics and strategies

Required Skills and Qualifications

- Position requires a bachelor's degree in a related field such as marketing or computer science
- Experience in an advertising or digital marketing position and a working knowledge of various social media platforms, best practices, and website analytics
- Proven understanding of HTML, CSS, and JavaScript is a must
- Solid analytical and quantitative skills
- Creativity and interpersonal skills highly required
- Excellent verbal and written communication skills
- Well-informed on the latest trends and technologies in digital marketing

User Experience (UX) Designer – Job Description

Responsibilities

- Develop design software and platforms that solve UX problems and meet user's needs
- Work with digital product and understand web app specifications and user psychology
- Conduct user research, understand of human behaviour and perform usability testing
- Define the right interaction model and implement attractive designs to enhance user experience
- Develop wireframes and task flows to attract and retain customers
- Communicate design ideas to developers to create intuitive, user-friendly software
- Search for technology industry trends and the new competitive products

Required Skills and Qualifications

- Working experience as a UX Designer and background in project management
- Strong portfolio of other technical design projects is essential

- Familiarity with interaction design and information architecture
- Proven skills needed in front-end web development such as HTML, CSS, JavaScript languages and design software such as UXPin and Balsamiq
- Problem-solving and analytical skills to meet user's needs
- Excellent communication skills with the team and clients
- Position requires a bachelor's degree in a related field such as Graduate Certificate of UX, Web Design or computer science

CFO at a Start-up – Job Description

Responsibilities

- Manage the start-up company's financial processes and controls in a short and medium-term perspective
- Manage the annual processes for budgeting, forecasting and financial reporting
- Perform audit processes and advising on long-term business
- Prepare financial results reflecting financial performance and position of the company
- Form new relationships, drive measurable value, and establish core financial processes and reporting requirements
- Provide a leadership and management of the finance and accounting team
- Keep inform the management team accountable with facts
- Influence the rest of the C-suite and Venture capitalists by driving the metrics, providing strategic recommendations and presentation of results during board meetings
- Deliver immediate value and contribute to long-term objectives of the business

Required Skills and Qualifications

- Extensive experience working with start-ups and in the finance industry is expected
- Complex analytical thinking and strategic problem solving
- Leadership and managing techniques are essential
- Ability at interpersonal and communication skills to engage with team at all levels of the company
- Highly developed negotiation to effectively manage a variety of stakeholders
- A Bachelor's degree in Finance or Accounting with a professional qualification such as MBA or CPA highly desirable
- Demonstrated experience in financial management accounting, and the ability to provide high quality financial advice and an effective banking and financing solutions

All applicants must have Australian working rights and be able to commence work on the 17th November 2019. Contact me for a confidential discussion about this or other opportunities in this web app project development.

Group Reflection

After working together collectively for several weeks, the group gathered to evaluate the outcome and inner mechanisms of the group as a whole during the production of the assignment for ‘Group 23/OpenMinds.’ The aim of the group was to establish a strong framework of which to develop clear planning, effective problem solving, shared productivity and inclusive decision-making within a creative and supportive network. After considering the contributions and participation of each member there was a unanimous consensus that the group experience was a highly successful one, with each member agreeing that it had been a highly positive and beneficial collaboration. It was agreed that this was achieved by each member’s dedication and implementation of the following:

- Good work ethic and strong desire to contribute
- Active participation and contribution from every member
- Generous and supportive attitude of each member
- Effective planning
- Clearly defined deadlines
- Appropriate delegation and recognition of each member’s complementary strengths
- Respectful communication
- Creative collaboration

The group agreed that they communicated and gelled exceptionally well and appreciated the effectiveness of the group to accommodate individual schedules and provide support when needed; all this attributed to the shared success of the project. No-one felt that the group experienced any deficiencies and therefore struggled to form any criticisms regarding any particular area of the assignment or individual team-member. Due to the efficiency of which the group worked there was only minor improvements required regarding written works by individual members such as in-text referencing and further detail in some topic descriptions. As such, the team has tried to incorporate this feedback into their current work. The team was collectively surprised at how productive and positive the overall experience had been for every member. Thus, the team had learnt that group work can in fact be a constructive and rewarding experience on a multitude of levels primarily through good communication. As a result, the team feels that the workload was fairly and evenly distributed, with each member being assigned an appropriate task complementary to their individual strengths and should be somewhat reflected within the GitHub log of activity. However, to provide more specific detail of task delegation for this assignment (A3), the following list may be referred to as a guide:

- Team Profile - Recycled from A2

- Team Profile (Group Processes) - Carla J
- Team Profile (Career Plans) - Adrianna M
- Overview (Topic) - Aaron B
- Overview (Motivation) - Aaron B
- Landscape and Aim - Sean M
- Plans & Progress - Aaron B & Sean M
- Roles - Adrianna M
- Scopes & Limits - Lachlan S
- Tools & Tech - Aaron B
- Testing - Andrew B
- Timeframe - Carla J
- Risks - Andrew B
- Group Processes & Communication - Lachlan S
- Skills & Jobs - Adrianna M
- Group Reflection – Carla J

Individual Team Member Reflections

Aaron B:

My personal experience with the Group, has been nothing but positive. From our previous assignment the OpenMinds has maintained our standard in our performance in participation, contribution and communication. The one thing that I did like in this assignment is that everyone shared a strong interest in the group topic. We shared our bad experiences associating with the topic at hand. We seemed to all have had someone or ourselves that has horror stories with the internet and experience with mental health as a whole. I think sharing our stories and experiences, built a lot of trust within the group and has made us stronger than before.

Andrew B:

Upon reflecting on the overall conduct of the group, I found that the group worked really well with keeping in regular contact with each other, delegating tasks among each other and constructing deadlines for our individual tasks as well as how everyone was participating fully with no people slacking off. What surprised me the most was that despite the fact the group members were all over the place in terms of geographical locations, different work schedules and time commitments, we were always able to meet up for regular meetings and complete our tasks on time. I don't really

have any constructive criticism in regards to improving the group because I honestly have no complaints and having worked in groups for schooling life, this was probably the best group I've worked in so far, everything was well organised, flowed, we all knew what we were doing with our assigned tasks and kept in constant communication through Discord, which in my perspective made everything flow easily despite the various circumstances people were in with their personal strengths, weaknesses and time availability.

Carla J:

Prior to studying this subject, I was apprehensive about group work as I've had several group tasks in the past that were not highly productive, leaving me with the bulk of the work and a negative view of group activities. However, this group assignment has far surpassed my expectations and completely changed my outlook on group collaboration. This group communicated and gelled exceptionally well, making it easy to facilitate meetings and delegate tasks. Each member's individual strengths and interests were easily identified and therefore appropriated a complementary task which I believe added to the efficiency and productivity of the group. The most surprising element to me of this experience was how well the group progressed and the ease at which the assignment was completed because of this natural collaboration. There have been multiple things I've learnt from this group setting, particularly how important good communication and clear delegation can be but most importantly I learnt that group work can actually be a highly successful and positive experience if you're fortunate enough to be assigned with effective and talented members. I believe this will be fairly accurately reflected within the groups GitHub activity log, thus will be apparent in the overall quality of our assignment as a whole.

Lachlan S:

Having participated in a few groups in my time across different disciplines, this group is by far the easiest to work with and most diligent group I've been involved in. All group members brought their own strengths and weaknesses with them and there was a general understanding from all members that we needed to work within these capabilities. All group members put in effort and kept in regular communication, supporting each other when we had any issues and encouraged each other when we were down over anything assignment related. I can not single out any one group member that put in any less effort or pulled any less weight than anyone else, and I think my main learnings were that if communication is established early and is kept regular, all group members maintain transparency and clarity on what they need to do and are able to reach out should they need.

Sean M:

Upon joining OpenMinds I was greeted with an incredibly warm and intelligent group of people ready to get on with the job. I was apprehensive about group work as I'd heard all the stories but

surprisingly this group gelled straight away. Through circumstances out of her control, Adrianna joined late in the piece. She was immediately welcomed and the group found a way to utilise her and make her feel included even though we had designated most of the assignment already. At all times ideas and suggestions were treated with respect, appraised fairly and discussed openly and honestly without fear of criticism. I have learnt what a good group can achieve with relative ease if everyone participates. The Github commit log should show who was responsible for different parts of the assignment, as will Carla's Minutes. Overall though everyone worked to a high standard and when anyone asked for help everyone offered. This was a rewarding experience and provided an excellent understanding of how a group should function.

Adrianna M:

As a team we invested a lot of time and worked hard to make sure that all the details have been discussed, the content and final effect of the GitHub page is exceptionally good. Our team is communicating exceptionally well and we're supportive and offered each other help if there were any doubts. Carmen's meeting minutes were clearly presented. All the topic covered during regular Discord group chats and voice meetings were detailed described. We're skilled, dedicated group with a positive attitude and nothing could be done better to improve our performance. I was able to participate in team's activities and was an active member working together as a group to achieve our common goal to submit this final assignment. The group as a whole agreed that also this time Lachlan will take the role of being a GitHub administrator and decided the other members will commit to GitHub Repository with completed documents. Github log of activity doesn't necessarily reflects our group's work and represents personal input to the assignment. Delegation of tasks have been carefully discussed, tailored to IT experience and based on personal assessment of each team member's skills and capabilities.

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