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| --- |
| BLockMarket  Tuesday Group 10 |
| Website  <https://s3954173.github.io/BlockMarketA3/>  GitHub Repository Link  <https://github.com/s3954173/BlockMarketA3> |



**Team Profile**

Bo Kim Tran (s3954173)

I was born in Australia but have a half-Chinese and half-Vietnamese ethnicity. In 2019, I undertook a traineeship with Apprenticeship Support Australia. Since then, I have been working as a Client Service Officer providing crucial support to businesses and apprentices especially during COVID and being responsible for administering government subsidies to clients. Some of my hobbies include experimenting with programming languages and playing games like Elden Ring. I especially love going on walks with my pet dog Vilo (see above for maximum adorableness!)  
  
I have a fair amount of IT experience in terms of what I have learnt or have been exposed to. I have dabbled with Python, Raspberry Pis, building computers, configuring networks, playing VR games and have been continuously exploring the different options available in the IT industry.   
  
My current number one interest in IT has been cybersecurity and ethical hacking. Research into this industry gave me motivation to learn vital skills and knowledge to protect myself, my family, and others from the constant threats we face online.

A person wearing glasses

Description automatically generated with medium confidence

A dog lying on a bed

Description automatically generated with low confidence

My website

[***https://s3954173.github.io/COSC1078-Assignment-1/***](https://s3954173.github.io/COSC1078-Assignment-1/)

# Hayden McKenzie(S3897476)

My name is Hayden McKenzie. My student number is s3897476. I have a turtle named Argon. Other than programming, my other hobbies include playing the guitar and sports and fitness. I was striving to play professional basketball however in 2018, I tore my ACL. Through the process of recovery, I discovered that I would love to help others through recovery and decided to become a chiropractor. However, I started working at a chiropractic clinic and I saw the effects of COVID and decided I didn’t want my future occupation to be affected by a random event such as COVID.

My IT experience includes getting an internship at a sports tech company as a full stack developer. This has given me a good range of experience with UI/UX design, Back-end development and Database systems. The languages I have learnt are Python, Java, C#, C++, NodeJS, ReactJS, AngularJS, PHP and MySQL. I have also dabbled with Raspberry Pis, and I have built multiple computers. I have been exploring all the possible options in the IT industry and tried to gain as many skills as possible so that I am not limited.

A person smiling for the camera

Description automatically generated with medium confidence

My website

[***https://HaydenMcKenzie.github.io/AssignmentOne/***](https://haydenmckenzie.github.io/AssignmentOne/)

# Daniel Gell (S3944942)

Hello, I am Daniel Gell, a member of the Block Market team, my student number is s3944942, and I’ve just moved to Melbourne this year (2022) for university, previously residing in the Gippsland town of Rosedale. My main hobby is music, I’ve been playing guitar for nearly a decade, and have picked up various other instruments throughout the years. I am also an avid collector of music, with a collection of CDs, vinyl records, and cassette tapes amassing about 350 albums in total. My interest in IT mostly stemmed from my year 12 IT teacher, Mr Donald Watson, he was very informative in how he taught and it gave me a love of IT that I still have till this day. I have little to no actual practical experience in IT however, aside from a few data entry jobs I did for my mother’s bookkeeping company.

A person with curly hair

Description automatically generated with medium confidence

My website

[**https://s3944942.github.io/Assignment-1/**](https://s3944942.github.io/Assignment-1/)

A person sitting in a car

Description automatically generated with medium confidence

In terms of field experience, there is limited and junior experience as a developer, using libraries such as angular and RxJS to develop. As I work in the front-end, I am always considering the UX and using a user-centred approach to my designs.

My website

[**https://sviozrsx29.github.io/COS1078\_Assignment1/**](https://sviozrsx29.github.io/COS1078_Assignment1/)

Russell Saw (S3935418)

Greetings! My name is Russell Saw and I am currently a student studying a Bachelor of IT in RMIT. I am Malaysian-Chinese by decent but have spent most of my childhood growing up in Melbourne (migrated at the end of 04) – and thus have adopted a strong Australian culture – with some Asian roots. My past education consists of a finished VCE (Highvale Secondary), 4 years of undergrad experience (Design at melbuni / IT at monash) and now finally finishing a Bachelor of IT at RMIT.

If not seen at my desk job as a junior front-end developer or studying for my degree, you can catch me practising guitar or playing badminton. Videogames have, and always been, a huge part of my life.

From an early age, IT has always been a major component of my life. Everything from playing video game consoles, the exchange of information through social medias, to my ever-growing curiosity of AI have shaped me to become the individual I am. As I grew up with constantly updated hardware – and ever-increasing capabilities, your curiosity of what is possible, and what can be created with these machines stands as a driving factor for my pursuit in a career in IT. I currently have hands-on experience with IT, recently starting my job as a junior web developer, working within a dev team collaboratively to code the front-end of an e-commerce website to be used commercially.

In terms of coding ability, I understand the fundamental principles of how some coding languages work, including HTML, CSS, JS and TS. I have had real-world experience applying these languages in developing websites. I have also had experience in completing courses in mobile app development (Android studio) which include development in the front and back-end (storing data using MongoDB SQL).

A person wearing glasses

Description automatically generated with medium confidence

My website

[**https://phamilyvan.github.io/COSC---IIT---Assignment-1/**](https://phamilyvan.github.io/COSC---IIT---Assignment-1/)

# Van Pham (S3788106)

My name is Van Pham, and I am studying a Bachelor of Information Technology. Born in Australia with a Vietnamese background, I can speak English, Vietnamese and in the recent years, have picked up Japanese. A fact that one might find interesting about me is that I’m an avid gamer, especially the genres of First-Person Shooters and Role-Playing Games. My favourite titles are “Counter-Strike Global Offensive” and “Skyrim”.

Before starting my studies at RMIT, whenever the term “IT” came up in conversation, I would always think of Artificial Intelligent Systems, Machine Learning and an Interconnected world using Technology. Those assumptions were heavily influenced by Japanese films such as “Ghost in the shell” and “Time of Eve” as well as games like “Deus Ex”. The conceptualisation of what a future society that is intertwined with technology has fascinated me ever since enjoying these medias a few years back.

After having studied for a couple of years with exposure to software development using Java, Databases and many other disciplines, my interest (much the same as before studying at RMIT) largely remains the same in Artificial Intelligence, Machine Learning and Data Analytics. Examples of developments in Artificial Intelligence that has piqued my interest in recent years includes Tesla’s self-driving cars, the robot Sophia and OpenAI’s Dota 2 AI.

Career Plans

**Bo**

My ideal job has changed from a Security Analyst to potentially a Software Developer/Software Engineer. At this point, I am still interested in Cybersecurity so I am leaving my options open for other roles such as an Ethical Hacker. My career plan has slightly changed where I hope to transition to RMIT’s Bachelor of Computer Science. The reason for this is due to it’s focus on programming and the fact that it is more practical-based instead of theory-based. I’d like to learn majority of the necessary programming skills and languages in this course but I’ll also attempt to complete TCM Security’s Practical Network Penetration Testing (PNPT) Certificate. Ideally with my connections, I can complete an IT internship in my current workplace in either software development or IT security. If offered a more permanent IT position, I’d take that role and continue working until I complete my Bachelors. After graduation, I plan to continue independent study and hopefully work in what would be my ideal job at that point.

**Daniel**

My plan is to finish this semester of the Bachelor of Information Technology, then to swap to a Diploma of Music (Sound Production), a course also offered at RMIT, following that I will get an Advanced Diploma of Music (Sound Production), of which I’m planning on getting for my own growth as an artist, as opposed to further career options in music, following that a Certificate II in Electrotechnology, a pre-apprenticeship course, and lastly, a Certificate III in Electrotechnology, a course completed while doing an apprenticeship for 4 years as an electrician. After that I will get my license to become an electrician and do that full time.

**Hayden**

My plan is to continue studying a Bachelor of Information Technology, and hope that I can switch over to either Computer Science or Engineering. Currently, it’s hard to say what I really want to do in the future, but I am exploring different courses that RMIT is offering. My ideal job is that of a Software Engineer, and fortunately, I am currently working an internship alongside my studies, which I think will be a good learning opportunity and experience. I have been offered an opportunity at an acquaintances company, to work as a software engineer. If everything works out, I hope to work as a software engineer either next year, or the year after, which is to be discussed further with my acquaintance, and during this period, I plan to work full-time and switch my studies to part-time.

**Russell**

My ideal job title is to become a UI/UX Designer in the gaming industry. I intend to look for that role after I graduate with my degree in IT. However, I only intend to work there for 1-2 years before I go into freelance. I prefer having the option to pick and choose the projects that I work on based on how much I feel it aligns with my level of passion and values. Ideally, I would also like to work around a schedule tailored to my outgoing lifestyle. As of right now, the steps I am taking involve acquiring and improving my coding and design skills through my existing role as a junior programmer. I aim to develop transferrable skills that revolve around website development so I can possibly land my ideal role. Through lots of trial and error, I will continue to hone my skills and hopefully be able to demonstrate all my hard work in the form of a folio. I also want to take on more responsibilities, continue independent study and learn to be comfortable working in a team in hopes that I may take on a leadership role in the future if the opportunity comes my way.

A common element that can be found within all members is that they seek further study whether it’ll be through completing a certificate or through independent study. Furthermore, it is most noticeable that Van, Russell, and Bo all plan to find work within the IT industry whereas Dan wants to change into a music course next semester. Despite the three members having the shared passion in IT, they all have different ideal jobs. Van wants to dive into data management, which is more technical and requires further learning. This contrasts highly with Bo’s changing interest from Cybersecurity to Software Development for he much prefers more practical based learning over theory. Dan’s career plan is similar Bo because of the alternated interests yet on different scales. Dan is making the bolder move to enter two new fields: sound production and electrotechnology. He has considered his entire career progression and researched the courses he needed to complete to achieve his dreams within the timeframe he set for himself. Russell and Van have also set themselves 1-2 years for their ideal job which implies they are also being mindful of the time they have to move forward in their profession.

**Van**

After graduating with a degree in Information Technology, I intend to work as a data analyst for 1-2 years. I believe that with the current knowledge in probability, my skills in using python libraries such as Numpy and Pandas to carry out an analysis, gives me a good foundation to build upon through work experience and further study. Until then, I plan to refresh on my knowledge regarding SQL, especially the querying side on database management, as well as learn how to use software currently used in the industry, such as PowerBi. Additionally, my ideal job more aligns with a data science title, and consequently, will require me to develop my knowledge pertaining to Machine Learning, data collection of data using different APIs, and many more technical skills that a typical data scientist is responsible for. I plan to acquire this knowledge during my work as a data analyst. Regarding how I will obtain these skills, the more easily acquired ones will be through independent study, using online sources and learned through practically application. The more technical and harder to acquire skills will be learnt through an amalgamation of online courses, online resources, reading textbooks, and polished through practical projects that are conducted individually.

**Tools**

Links

Team website

<https://s3954173.github.io/BlockMarketA3/> <https://s3954173.github.io/BlockMarketA3/>

Team repository

<https://github.com/s3954173/BlockMarketA3>

Meetings

* 7/5/2022 [Agenda](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/07_05%20Agenda.docx?d=w105ae1ae20744a1997891d560b2f743b&csf=1&web=1&e=Gn23T2) [Recording](https://rmiteduau.sharepoint.com/:v:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Recordings/Meeting%20in%20_Assignment%203_-20220507_200322-Meeting%20Recording.mp4?csf=1&web=1&e=QayBfA) [Actions](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/07_05%20Meeting%20minutes.docx?d=wb0afbaf6f9504df0835bd023b6a28875&csf=1&web=1&e=1YlA8V)
* 10/5/2022 [Agenda](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/10_05%20Agenda.docx?d=w405da5a1ad954a23a9954d9ee18885eb&csf=1&web=1&e=1NTrAz) [Recording](https://rmiteduau.sharepoint.com/:v:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Recordings/W10%20Meeting%201-20220510_143733-Meeting%20Recording.mp4?csf=1&web=1&e=ba4jF1) [Actions](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/10_05%20Meeting%20minutes.docx?d=w3689cc22d04049819f90d900103565f6&csf=1&web=1&e=o2w2Uj)
* 15/5/2022 [Agenda](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/15_05%20Agenda.docx?d=wa86c3995e25442308f26f4d324ca1e03&csf=1&web=1&e=IKFIND) [Recording](https://rmiteduau.sharepoint.com/:v:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Recordings/Meeting%20in%20_Assignment%203_-20220515_200430-Meeting%20Recording.mp4?csf=1&web=1&e=AuBVZK) [Actions](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/15_05%20Meeting%20minutes.docx?d=we74589c371764416b3844955b342ef02&csf=1&web=1&e=7xD2DZ)
* 22/5/2022 [Agenda](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/22_05%20Agenda.docx?d=w9df5a102e8364d098deae890a46fda41&csf=1&web=1&e=xIhVDV) [Recording](https://rmiteduau.sharepoint.com/:v:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Recordings/Rescheduled%20Week%2011%20Meeting-20220522_200503-Meeting%20Recording.mp4?csf=1&web=1&e=ywQ3lc) [Actions](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/22_05%20Agenda.docx?d=w9df5a102e8364d098deae890a46fda41&csf=1&web=1&e=xIhVDV)
* 29/5/2022 [Agenda](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/29_05%20Agenda.docx?d=wd70e4bac15b54738bf3da5f3bae4ffc4&csf=1&web=1&e=62uX0s) Recording [Actions](https://rmiteduau.sharepoint.com/:w:/r/sites/TUESIntrotoITGroup10/Shared%20Documents/Team%20Profiles/Meeting/29_05%20Meeting%20minutes.docx?d=w84254a4b381b40a284001e3bcf7a595a&csf=1&web=1&e=rfQARU)

**Project Prototype:** <https://share.proto.io/Y4KUQL/>

**Project Wireframe:** <https://www.figma.com/file/LW1gv1ds4T2VujkICbnT0M/Block-Market-Wireframe?node-id=0%3A1>

**Project Process flowchart:** <https://www.figma.com/file/JDsQbrtl37ZdcLE57IzGgI/Block-Market-Flow-Chart?node-id=0%3A1>

**Comments on group’s activity**

The audit trail of our Git repository is a fairly accurate representation of our group’s work and progress. With the exception of Hayden, each member of the team has been making commits regularly each week. These commits made it to easy to identify which milestones had been reached, and which members were not completing their tasks. It has also especially made it easier for our project files to be synced and up to date. Compared to our last assignment in which we were using Teams to upload files, it is a big step up and we’ve avoided issues with some documents having out of date information.

**Project Description**

Overview

**Topic**

The project we plan to develop will be a Productivity Software application with the goal to present a niche solution to the growing productivity software market (currently worth AUD $66.551 billion) expected to grow 14% per year up to 2030 (Productivity Management Software Market Report, 2030, 2022). To achieve this goal, our project will be developed with the basis of being versatile, cheap and easy-to-use. Our approach to development will avoid bloated and unnecessary features to the application’s main objective which is to assist a user with their productivity, time-management and organisation. Benefits of this approach include reduced resources required and greater efficiency to project development. For the end-user, the benefit they receive is a simple and intuitive product which can be quickly picked up and utilised to its full capabilities. Features that are implemented will feel familiar without the bells and whistles most applications tend to have. We avoid having these bell and whistle type features so as to not distract and cause detriment to the user’s experience. The application will serve as an all-in-one package for user productivity on an individual and team level, avoiding the need for add-on extensions or usage of additional applications.

To begin the development of our project, we will first create a wireframe to map out the application’s layout, user flow, information architecture and behaviours. From here, a prototype in the form of a full interactive mock-up will be developed, simulating the applications changes, behaviours, interactions, etc. It presents an opportunity for on-going testing, an understanding and feel for the UI/UX, plans for changes in the overall design/flow/behaviours, and raise issues requiring amendment. We will continuously refine the project so that the actual software development will have a clear goal to achieve. This approach does leave us limited with what we can test such as the storage of files, the implementation of APIs or the web app deployment process as these require code and specific tools to be tested.

**Motivation**

Our main motivation for this project comes from the potential to enter the rapidly growing productivity software market. It presents future opportunities to capitalise on the growing success of the market and thereby becoming successful ourselves. The popularity and success of such apps stems from how our society has such a focus on our work productivity. Where we are a student or person in the workforce, we are all working to achieve some form of output. With majority of our time spent working and focusing on said output, we often find ourselves neglecting to properly organise our own schedules. Therefore, the option of productivity apps is convenient and perhaps necessary, especially for individuals finding difficulty to organise by themselves.

The other motivation we have is based up upon our first-hand experiences with currently available productivity and time-management apps as students. Students have many aspects to manage such as time-management, note-taking, and project/assignment management. There are a variety of apps available dedicated to one of these aspects, but the main issue we identified are the lack of apps designed to fulfil all these requirements together. App choice variety is important and often enjoyed, but it does become tedious and time-consuming having to switch between apps just to use a specific function. Synchronising data across the apps is possible, but it is again tedious, time-consuming, and difficult for most users. Our motivations together aim to resolve these issues so the end-user can dedicate more time on their work, regardless if our end-user is a student or not.

Though it is not certain we can achieve our ambitious goals, the project will still prove to be a valuable learning experience for the team. It presents an attempt to mimic a real-world scenario where we can experiment with different aspects of project development and software development. This project will demonstrate to future employers our ability to identify a particular niche/requirement in a dominated market, how we plan to solve these requirements, and how well we utilise each team member’s skill-set to cover each other’s strengths and weaknesses. How we react and adapt to obstacles impeding our progress, how we solve issues and how organised we are will be other aspects future employers will be looking out for.

**Landscape**

Based upon the “2022-2029 Global Productivity Apps Professional Market Research Report” synopsis, “Key players in the global Productivity Apps market…” included Evernote, Microsoft To Do, Headspace, TeamViewer, etc.   
*(2022-2029 GLOBAL PRODUCTIVITY APPS PROFESSIONAL MARKET RESEARCH REPORT, ANALYSIS FROM PERSPECTIVE OF SEGMENTATION (COMPETITOR LANDSCAPE, TYPE, APPLICATION, AND GEOGRAPHY), 2022)*  
Other similar products to our project also include Microsoft OneNote and Notion primarily for their note-taking features. From the few that have been identified, these products are not just competitors, but key players that dominate the market. It is extremely ambitious to believe that our project could compete directly with these products and companies. Therefore, our project will be capitalising on the one point of difference that these other applications lack. This niche refers to each apps lack of variety in their functions to assist with all aspects such as note-taking, productivity, project management and organisation. By presenting our project as an all-in-one solution, we fulfil a particular niche in the market. Our chances of success increase and we avoid directly competing with these existing products.

Aims

***Aim - Develop a productivity web application***

We aim to not only develop an application, but one that targets a niche requirement within a heavily dominated productivity software market. It will be developed with the premise and concept that it will versatile, simple and easy-to-use. To do this, there are functions, features and goals set out for the development of this project. The ideal milestone we hope to achieve is deploying a prototype application on AWS with limited core functionality. However, due to time constraints and a lack of necessary skills/experience, this milestone most likely will not be reached. Therefore, the minimum milestone we plan to achieve is a prototype in the form of a interactive mock-up which simulates all or majority of the core features. By doing this, we can still conduct testing and review the effectiveness of the UI,UX and functionality of the application.

***Goal #1 – Establish a functionality flowchart and wireframe***

The functionality flowchart will describe how the application processes will flow and represent the relationships functions have. The wireframe’s purpose is to provide an overview of the UI design, the related functionalities and the intended behaviours of user interaction. This is our first and foremost priority to achieve. Without achieving this goal, development is impossible or at the very least, difficult to achieve and executed poorly.

***Goal #2 – Create a Login/Landing page***

For our prototype, this page will be the first page that greets users when they open up our web application. It will offer options for the user to either sign in with an existing account, or sign-up with a new account. Both options will take the user to a different page. In either option, it will not perform any actual email/password authentication as that is a function that needs to be coded. It is an important page to create given that this is the first page a user sees. However, when compared to other goals and core functions, it is not as important and time constraints may require diversion of resources from this page. This is because it is not a page or function necessary to achieving our main aim or application’s functionality. This sentiment would change if we reached the stages of coding and required the sign-in authentication to be running.

***Goal #3 – Create a Notepad page***

This page allows a user to add and edit notes to a page with additional options for text formatting and fonts. In addition, an auto-save will be in-built into the page so changes will be saved to a database without pressing a button. This is a core feature that allows the application to exist as a productivity application and offer versatility as planned. However, if there were issues with time constraints, we may develop this page to have basic features such as adding notes, editing notes and creating or deleting a page and saving a page. Additional features for text formatting and fonts are still crucial but technically are not required for basic functionality of this page.

***Goal #4 – Create a Whiteboard page***

This page will simulate an actual whiteboard where you can draw on it, add text and shapes to it. It is meant to serve as a page to quickly visualise ideas and create diagrams whether on an individual setting or in a team setting. Though not an in-built feature, a user can technically user a screenshot/screen snip function to save their ideas and diagrams. Unfortunately this may be a feature we won’t be able to simulate in Proto.io, therefore this goal might only be achieved to the extent of adding text to a blank white canvas, or simple setting the UI elements. The justification for this is because this page is not a core feature to our application and won’t impact on the application ability to exist as a productivity application.

***Goal #5 – Create a Sticky Notes page***

This page is a board of sticky notes that a user can continuously add or delete sticky notes to their liking. The inspiration of this feature primarily came from Trello and the old Windows Sticky Notes feature. The sticky notes are organised in a grid format instead of free placement system as this leaves room for disorganisation on the board. Sticky notes would also have an additional feature to set a background colour to allow for further organisation. This page is considered a core feature as sticky notes have served to be a great way for some individuals to take down notes and organise their ideas. Therefore this page would still be a priority to complete, however some leeway would still be made. The most important feature for this page is to add/delete sticky notes and organise them in a grid format. The remaining features serve to enhance the usefulness of this page but are not necessary.

***Goal #6 – Create a Roadmaps page***

This page is meant to be a collation of a project timeline and task to-do list which can be used set up for individual or team setting. It would display a timeline graph for either a project or assignment depending on the user’s need. Users are able to add tasks, delete tasks, complete tasks and assign tasks (exclusive in a team setting). This is a core feature which we believe to be one of the most appealing features of the application. For this reason, we would want to simulate almost all of the functions of this page. However time constraints may not allow us to fully develop the project timeline feature in Proto.io as it is unclear if this can be simulated to its full extent.

***Goal #7 – Create an Overview Page***

This page is the first page that a user sees once they login. It will be a simple hub of buttons that house internal links to the different pages of the application. Each button will have its own unique logo to represent the page that they link to. The button designs will be simplistic so that users can quickly find and intuitively understand what each button represents. Whilst technically not a core feature of the application, resources will still be put towards the full completion of this page. This is because from a UI/UX perspective, it is an essential page that not only makes page navigation easy, but also ties into our idea of a simplistic and intuitive design. Naming sense, this page might be changed to a ‘Dashboard’ instead of ‘Overview’

***Goal #8 – Create a page for document uploading***

This page is primarily a file management feature of the application. Like other file management apps or features, the user can have the ability to add, delete, rename, open of move documents,files and folders. All document and folders are auto saved into the file manager. This feature is not a core feature so therefore, not much focus will be made to complete this page to its full extent. Furthermore the back-end processes of saving to a database can’t be completely simulated. This can only see full effectiveness once it has been coded and a robust cloud server has been set up for cloud storage.

***Goal #9 – Create a Communication Channel page/tab***

One of our core features yet potentially most difficult to prototype/simulate. We would not develop our own communication servers/channels but rather simulate the API integration for Microsoft Teams. This would prove to be a more cheaper and effective method to establish some form of communication means for the application. However, for the purpose of the interactive mockup, we have opted to create a button that links directly to Microsoft Teams. Though this feature is a core feature, the most we would be able to simulate is opening up Microsoft Teams within the app. Any further behaviours/interactions with this feature is technically done within Microsoft Teams, therefore there is no point simulating this behaviour.

***Goal #10 – Allow for Direct Messaging capabilities (Extension of Goal #9)***

This goal would still utilise the API integration for Microsoft Teams for direct messaging. It is not a priority to be developed in the prototype since the functionality depends on Microsoft Teams.

***Goal #11 – Side Bar Menu***

This feature is a side bar on all pages after you log in to the web application. It features a Home button for users to go back to the Overview page. A drop down can be expanded or collapsed which contains buttons to navigate to all the pages in the application. It will be designed to be simple and minimalist. This is a priority feature that we need to simulate its entire functionality. Without a side bar, a user does not have an effective means of navigating through the application.

Plans and progress

**Week 1**

The first week of the Assignment, spanning from those dates 02/05/22 – 08/05/22, the team has unanimously agreed upon taking this period slow, treating it as a time where members that pushed themselves could rest and be recharged for the follow 3 weeks. That is not to say that no work will be completed during the first week, but rather, we will analyze and delegate the sections evenly regarding the written components; disregarding the prototyping and wireframing which we intend to complete during the latter half of the Assignment 3 duration. A lot of members pushed themselves in contributing more than their fair share during Assignment 2 and in conjunction with the hasty nature that was completing the Assignment on the night of the submission date, we have split the work for the first week of Assignment 3 accordingly:

* Bo: Skills and Jobs (Marketer)
* Hayden: Skills and Jobs (Software Developer)
* Van: Skills and Jobs (UX/UI Designer)
* Daniel: Skills and Jobs (Project Manager)
* Russell: Team Profile Paragraphs

In addition to these tasks, with expectations to be completed during the end of the sprint week, the bigger sections of the written component must also be addressed and delegated during this first week, especially for parts of the Assignment that need to be done frequently such as Plans and Progress. The following work will be considered an ongoing task, and assigned to the members respectively:

* Bo: Timeframe, Tools
* Hayden:
* Van: Plans and Progress, Meetings and Agenda
* Daniel: Report Design
* Russell: Website Skeleton

Additionally, every member was reminded that the Spark Feedback pertaining to Assignment 2 needed to be done before the deadline. Unfortunately, some members, because of inaction, which will be a constant theme throughout this documentation, did not complete their feedback in time.

Throughout the week, members such as Daniel and Hayden, that did not contribute evenly during the last Assignment, showed a resurgence in their enthusiasm with the act of completing their assigned tasks of their respective Skills and Jobs earlier than the deadline. Some members were eager to carry on additional tasks, however, per the timeline that we had decided on, the additional delegation of tasks was to be discussed further during on usual weekly meetings, where we discuss progress as well as tasks to be assigned during the following week. This was a good indication that everyone was willing to try and contribute as best as they can.

The progress completed during this week was not without roadblocks and troubles. Trying to have an upkeep of 2 meetings per week, a meeting was scheduled on Friday, but due to the lack of members present, it was rescheduled to Saturday. Despite this, only 3 members showed up to the meeting: Bo, Russell, and Van where the section of Project Overview was assigned to Bo and Group processes and communication to Van. This selection of tasks was because the team believed the sections of Aims, scopes and limits, and other sections relating to the actual Project itself, would be in better handled by Hayden. No new task was assigned to Russell as creating the website skeleton by himself was already quite a demanding task and asking him to take on any more responsibilities would be unjust to him. At the end of the week, the reason for unattendance from Hayden and Daniel was ascertained with Hayden having no internet throughout the second half of the week and Daniel notifying that Saturday was a bad day to hold meetings for him, resulting from work.

In retrospect, comparing the beginning of the week’s planned tasks with what has been done at the end of the week, the team has completed most, if not all our weekly tasks, excluding those that are continuous. Resultingly, the smooth progression provided the team with a moral boost and confidence that during this Assignment, we would be able to better execute on our individual parts, and additionally, collectively work better as a team.

**Week 2**

The second week of the Assignment spanned a timeline between 09/05/22 – 15/05/22. Given that the team had rested and taken a slow start to the Assignment, the start of this week was a sign that we were going to ramp up the responsibilities given to each member. However, considering that Hayden contracted COVID, we were down to 4 expendable members during this weekly sprint. In consideration of this roadblock, it was agreed during the tutorial that the team would try and finish the rest of the written components for the assignment during this week, for the purpose of focusing on the wireframing and prototyping during the latter half of the Assignment 3 period. Therefore, the spread of new tasks can be examined by the following:

* Bo: Career Plan, Overview
* Hayden: Tools and Tech, Aims, Career Plans
* Van: Career Plan, Group processes and communication, Scopes and Limits
* Daniel: Career Plan, Testing, Risks
* Russell: Career Plans, Roles

During this period, the following Tasks were completed:

* Bo: Career Plan, Overview
* Van: Career Plan, Group processes and communication, Scopes and Limits
* Daniel: Career Plan, Testing

Considering that most tasks were completed by the members available, there are many positive things to bring up during the reflection of tasks completed during week 2. Completing accordingly to our conceived plans, we were able to complete most of the written components, leaving the more specialized parts for Hayden to write up when he was made available again. Russell was also able to push onto Github the components of his website, although being in a different in structure, with no index.html for an actual Github page to work, it was relieving to find out that the expendable members were able to keep up and deliver on their tasks.

The main areas of concern pertaining to roadblocks during this week, was not only having to operate at a limited capacity, but also the fact that meetings were not being attended, with Russell joining Hayden in absence. At this stage of the Assignment, it would mark the beginning when these two members went missing from the Assignment, whereby responses to Bo’s text messages were not coming through. This theme of non-attendance and not communicating with the team took root during the week and became extremely prevalent in the following week 3.

In retrospect, the tasks assigned during the sprint were able to be completed by the respective members overseeing them. As mentioned before, the roadblocks of non-communication and non-attendance would cause the team some trouble, with outstanding tasks being kept in the backlog, incomplete, as well as cause trouble for assigning new tasks and consequently, some members would have to take on more than their fair share of the workload and complete the outstanding tasks that were assigned to the inactive members.

**Week 3**

Week 3 spanned from the 16/05/22 – 22/05/22. During this week, only Bo, Daniel and Van attended the tutorials, where the discussion of the next steps and tasks relating to this week were held. In accordance with the Sunday meeting, the team agreed to focus on the fundamentals of operating new tools such as Figma and Proto.io, and familiarize themselves with them until the next meeting, which would be held on the Friday of that week. Considering the absence of our other members, we decided to defer the discussion of the actual prototyping and artifact discussion until the next meet. Therefore, the assignment of new tasks would also be delayed until the meeting.

During this week, a meeting was scheduled for Friday, in which was discussed and agreed on a consensus from the 3 members who attended. Unfortunately, only 2 members showed up; Bo and Van. Resultingly and reluctantly, the meeting would have to be rescheduled again until the Sunday, as it was the usual time in which we have conducted ourselves, and that time worked out well for every member of the group.

Although the meeting was to be held on Sunday, in lieu of lack of attendance, Bo and Van discussed the procedure relating to the prototyping. More specifically, Bo had drawn up a flow chart diagram to exemplify how the interaction between features and elements were to be implemented. At this stage, the bulk of the flow chart had been completed, with a few tweaks to be added during the following days.

Using this as a reference, Van implemented the basic functionalities of the Sticky Notes, Login-in screens, Notebook and Calendar during this week in which the complexity of prototyping these features was made simple with the help of Bo’s flow chart.

During the rescheduled meeting on Sunday, only Van and Bo were present yet again. Regardless, the discussion of the work done, as well as the focus for next week, pertaining to the tasks that each member would be assigned to was also discussed during this meeting. Bo had discuss wanting to focus on preparing for the presentation, with the task of prototyping to be continued by Van. As the inactive nature of the other members, it became difficult to access the progress of work done on their behalf, and even more difficult in assigned tasks to them as they already have a handful of outstanding tasks that had yet to be completed.

Another setback that was discovered during this week was the fact that proto.io does not support that use of condition statements and logics. This further revised the scopes and limits of what we would be able to implement using this tool. Taking this into account, we would aim to prototype the functions as close to their expected behaviors as possible and if it becomes too difficult to implement with proto.io, the basic flow and transitions between screens would be opted for these sections.

Overall, the beginning of the week started off slow, being down 2 members and having the actual discussion of the implementation of our project deferred to the latter half of the week, proved to be quite mistake to some extent. The majority of week 3’s plan was intended to relate to prototyping and creating a mockup of our project. During this week, certain members had to step up and do more than their fair share of the work.

**Week 4**

Week 4 spanned the period from 23/05/22 – 29/05/22. The remaining written components that were originally assigned to Hayden were absorbed and completed by Bo. The preparation of the Video Assignment after the completion of Assignment 3 will also be discussed in this period, in which the discussion how to conduct, as well as discussing compromises in terms of members able to participate. This week is also dedicated to try and complete the remaining artifacts for the prototyping. Additionally, a functioning website with all the content uploaded will also need to be complete during this period. The report collation will also be done along with the rest of these tasks.

Since Hayden has still yet to contact the group regarding his wellbeing and progress, Bo has taken additional responsibilities in taking over his outstanding tasks, which were the Aims and Tools and Tech section of the report. At this point, almost all of the written components have been completed. The rest were completed near the end of the submission deadline.

The prototyping has been travelling smoothly, yet some functions cannot be completely envisioned in this sprint. This is a result of a combination of time restraint, limited knowledge regarding the use of proto.io and its conventions, and the biproduct of having a single member perform most of the prototyping despite it being a two-man designated task. From the last weeks progress up until a couple of days before the deadline, Daniel has yet to show significant progress on his chosen feature to implement being “Roadmaps”. Consequently, the rest of the functional requirements for the prototype (which can be viewed from a diagram perspective here: <https://www.figma.com/file/JDsQbrtl37ZdcLE57IzGgI/Block-Market-Flow-Chart?node-id=0%3A1> ) has been completed by Van.

Ultimately, the team fell short of what we had intended to carry out during this week because of non-attendance, non-communication, and unfinished outstanding work. Certain members had to step up, resulting in a reasonable reflection of our intended plans for the week, albeit the bulk of this work was done during the end of the week. Therefore, the end of the Assignment will yet again be ensued by another crunch period, where we aim to complete the remaining requirements per the Assignment specifications including the remaining function of roadmaps for the prototyping, the uploading of our content on the website, and final report collation.

Roles

In our team, we determined roles based on areas of strengths and weaknesses of each individual member. By doing this, we are ensuring that the allocated role perfectly aligns with the member’s level of skills and experience so that the duties and responsibilities can be fulfilled to the highest possible standard.

Bo – Project Manager

When it came to leadership skills, Bo was the perfect fit. He was reliable, influential, and consistently showed great initiation; he easily became our project manager. He helped delegate our tasks and set realistic deadlines for everyone for every small task. He focused on maintaining efficiency and productivity so that we were able to complete our work in an orderly and timely manner. He also navigated our weekly Team meetings so that we were openly communicating and discussing our progress to each other. He took corrective measures when there were issues, and he was always so motivational and directed us on the right path.

Russell – UI/UX Designer – Front-end developer

For the front-end developer position, Russell was the best candidate in our team. His previous experience in website development provided us the advantage in being able to create an effective website through his skill in web languages such as HTML, CSS and JavaScript. Not to mention, Russell carried a creative mind and had a great eye for small details. He knew that there had to be a middle ground between the functionality and aesthetic design of the website. Hence why throughout his process in implementing these visual elements, he ensured that our presentation is structured appropriately on our web pages, and that it is easily navigated by users.

Hayden – Lead Developer

Hayden became our Lead Developer because we agreed to bring his application proposal to life through the form of our assignment. He helped guide the direction of our project and assisted in the backend of the application in which includes building and configurating the software and systems in collaboration with the other team members.

Daniel and Van – Software Developer

Daniel and Van share the same title as the Software Developers. They both had experience in programming, making them a compatible pair. They also focus on the back end of the application, where they are researching, implementing efficient coding and making modifications so that there is operational practicality in the software.

Scopes and Limits

Firstly, it is important that we recognise the restraints that we have, coming into this Assignment. The development of a productivity App would require significant resources in developing the front-end and back-end of the software. The creation of a fully functioning front-end would require resources in coding HTML/CSS, which the team commands a basic understanding of the fundamentals. The use of JavaScript would also be important, considering that our project idea is a web-based application, requiring the use of JavaScript Libraries such as React. Considering that only 1 member has experience using this Library, in conjunction with the time restraint of less than 1 month to work on this Assignment, the team has unanimously agreed to opted out of producing a web-based application, favouring the option of produce a functioning prototype in lieu of this decision.

Additionally, only 1 member is well acquainted in PHP for the back end, proceeding with creating a functional web-application would require a significant amount of work from the two members, rendering in an unfair amount of work distributed.

Designating members as front-end and back-end developers would require them to learn specific languages, libraries, and how to use them to a degree where they can contribute evenly to the development of the project would be unfeasible, as the learning curve far outweighs the time we have.

From out Assignment 2 Project Idea Description, we intend to prototype and develop a mock-up regarding the main features which include:

* Notepad
* Whiteboard
* Calendar
* Sticky Notes
* Roadmaps
* Overview Pages
* Document Uploading
* Channels
* Direct Messaging

We will be ignoring the extra features in this iteration of the development. The omitted items include:

* In-built Media Player
* In-built contact book

Furthermore, the use of Proto.io as our application to implement our features also needs to be addressed. Proto.io is very useful for simple prototyping projects. Where it comes short, is when complex arguments and conditional statements are needed to be implemented. As this prototyping tool does not support the use of if statements and simple logic, it is extremely difficult for use to be able to fully envision our project with Proto.io. However, due to the time constraints, amalgamated with our limited abilities in software development, we have further revised our expectations in the scopes and limits. Functionally, we are still aiming to provide the same experience as if one were using a fully developed application. For instance, for the Sticky Notes function, we intend to provide the user with the experience to type on a note, create a new note and delete an existing note. However, because of not being able to utilize conditional logic, we will cut some of our functions short, in terms of what we can present as well as make compromises regarding the ways we implement some features.

Tools and Technology

The main tools utilised for the initial development of the project will be Figma and Proto.io. Figma will be primarily used for creating the diagram process flowchart, whilst Proto.io will be used to create the wireframe and interactive mock-up of the project. Due to the small time constraint that is set to create these plans, a premium plan/license for Figma and Proto.io will not be required. We can use the free trial period to utilise the premium features as much as possible. We plan to use Russell’s prior experience with these tools to guiding and teach the team on how to use them. Once we reach the coding stage after testing and reviewing the UI/UX of the interactive prototype, we plan to use HMTL, Javascript and PHP. Hayden and Russell have extensive experience with these languages and therefore would be most suitable with the responsibility of the actual software development. Visual Studio Code and Atom will be our primary choices of IDE, with GitHub being version control tool. In terms of hardware, it would only extend as far as having a standard laptop or a PC fast enough to handle coding very efficiently.

Testing

Throughout the stages of development of our application, we will test our program in many ways. The most common way we will test is after each revision is the functionality test, where someone working on it will go through to make sure there are no unexpected errors when performing tasks, and that all the buttons and links directly to where they’re meant to go, if everything works as it’s designed to, then it’s succeeded. After that there is usability testing, this will take place through user testing, users will be found through connections staff members have with family and/or friends who would use a productivity app, only about 5 people would be needed each time a usability test is done. This type of testing involves making sure that everything more or less feels right to people who aren’t exposed to the software already and ensuring that all of Nielsen's ten usability heuristics are being followed appropriately, such as user control, consistency, recognition, and aesthetics. This stage of testing will be completed successfully once each user tester can successfully use the prototypes of the program within the tasks instructed without outside help.  
  
Interface testing will also be done to ensure that the program connects to the servers correctly and that any error messages displayed are the correct ones, also that the database can be read correctly and work as designed. Also important is compatibility testing, where the app will be tested on all device types, such as Windows, Mac, Linux, Chrome, Firefox, Android, iOS, etc., to ensure that all tasks can be achieved on each system without error. Lastly is performance and security testing, the former involves putting the software to its limits by overloading it with information, this is to make sure that the limits of the software are well within the potential use cases of what users would do; and if it does crash, to make sure no data is lost. Security testing on the other hand is making sure all data on the servers, such as documents, email addresses, phone numbers, passwords, and payment details, are all securely kept, encrypted, and inaccessible by the end-user.

Timeframe

|  | Van | Bo | Hayden | Daniel | Russell |
| --- | --- | --- | --- | --- | --- |
| **Week 1** | Design, collate, and audit Assignment 2 report. Fill in missing details of the report where required. Assist to add report information to Block Market’s Assignment 2 website. | Collate Assignment 2 MS Info document. Complete overview, motivation, skills and outcome of Project Ideas. Assist to add report information to Block Market’s Assignment 2 website. | Complete description and tools/tech of Project Ideas. Amend website presentation issues. | Assist with report collation and add report information to Block Market’s Assignment 2 website | Develop and design Block Market’s Assignment 2 website. Assist to add report information to Block Market’s Assignment 2 website. Amend website presentation issues. |
| **Week 2** | Research job ads for UI/UX Designers and create our own job ad for this position. Start writing upon Plans & Progress. | Research job ads for Advertising Specialists and create our own job ad for this position. | Research job ads for Software Engineers and create our own job ad for this position. | Research job ads for Project Managers and create our own job ad for this position. | Create Block Market’s Assignment 3 website skeleton. Finish Team Profile (Group Processes and Career Plans). |
| **Week 3** | Write up paragraph on their own career plans. Write up Group Processes & Communication, Plans & Progress, and Scopes & Limits. Continue writing upon Plans & Progress. | Write up paragraph on their own career plans. Write up  Overview. Continue updating Tool and Timeframe. Plan out A3 Presentation. | Write up paragraph on their own career plans. Write up Aims and Tools & Tech. | Write up paragraph on their own career plans. Write up Risks and Testing. Continue report collation. | Write up paragraph on their own career plans. Write up Roles. Continue on website skeleton. |
| **Week 4** | Start on wireframing/prototyping. Continue on Plans & Progress and Scopes & Limits. | Start on wireframing/prototyping. Finish up on Risks and Timeframe. | Finish writing up on Aims and Tools & Tech. Start on wireframing/prototyping. | Start on wireframing/prototyping. Continue report collation. | Finish up on Roles. Continue with website development |
| **Week 5** | Finalise/test project prototype. Write up group reflection for self. Collate final documents for assignment submission. | Finalise/test project prototype.  Write up group reflection for self. Finish writing up on Tools. Write up Presentation plan/content. | Finalise/test project prototype. Write up group reflection for self. | Finalise/test project prototype. Write up group reflection for self. Finish up with report collation. | Finalise/test project prototype. Write up group reflection for self. Deploy assignment website. Start creating Presentation website. |
| **Week 6** | Do project presentation. Complete A3 contribution form/feedback. Review project prototype and user feedback. | Do project presentation. Complete A3 contribution form/feedback. Review project prototype and user feedback. | Do project presentation. Complete A3 contribution form/feedback. Review project prototype and user feedback. | Do project presentation. Complete A3 contribution form/feedback. Review project prototype and user feedback. | Do project presentation. Complete A3 contribution form/feedback. Add video to Presentation website. |
| **Week 7** | Conduct further market research, surveys and identify potential avenues to develop towards. Start networking with potential clients . | Start setting up the project’s cloud server with AWS. Review cloud server plans and ensure within budget/resources. | Start coding up the project. Primary focus on back-end. | Plan and develop the entire app database design. Also submit plans on the deployment/storage of the database for budgeting planning. | Start coding up project. Primary focus on front-end. |
| **Week 8** | Write up report on findings based on market research, surveys etc. Goal is to identify and relay any additional wants/need from our target market and see if our application can deliver up on it. Continue networking with potential clients. Assist with on-going software testing. | Continue configuring AWS cloud server for app deployment. Review database deployment plans and decide on whether to use SQL or NoSQL. Monitor software development progress. Update stakeholders on progress. | Continue coding the project. Primary focus on back-end. | Research and review DBMS software options most useful for the project database. Finalise the database design. Assist with on-going software testing. | Continue coding the project. Primary focus on front-end. |
| **Week 9** | Continue networking with potential clients. Start creating promotion campaign. Assist with on-going software testing. | Finalise AWS cloud server configuration for app deployment. Update stakeholders on progress. Communicate additional requirements from stakeholders to team.  Monitor software development and database progress. | Continue coding the project. Primary focus on back-end. Completion/near completion of front-end components. | Start database development in the chosen DBMS software. Assist with on-going software and database testing. | Continue coding the project. Primary focus on front-end. Completion/near completion of front-end components. |
| **Week 10** | Finalise promotion campaign. Continue networking with potential clients. Assist with on-going software and database testing. | Write up a project status report for stakeholders. Update stakeholders on progress. Communicate additional requirements from stakeholders to team.  Monitor software development and database progress. | Finalise project development. Ensure completion of almost all components. Work with Daniel on implementing database with the application. | Finalise database development in chosen DBMS software. Work with Hayden/Rusell on implementing database with the application. Assist with on-going software and database testing. | Finalise project development. Ensure completion of almost all components. Work with Daniel on implementing database with the application. |
| **Week 11** | Deploy promotion campaign on social medias. Continue networking with potential clients and answering queries. | Present project status and progress report to stakeholders. Thorough testing of application. Review current budget usage and projected user count. | Thorough testing and debugging of application. | Thorough testing and debugging of application. Primary focus on the database. | Thorough testing and debugging of application. |
| **Week 12** | Continue promotion campaign on social medias. Continue networking with potential clients and answering queries. Draft up user survey page. | Update stakeholders on progress and application deployment. Analyse projected data user count and budget usage. | Deploy application on AWS. | Deploy application on AWS. | Deploy application on AWS. |
| **Week 13** | Deploy user survey page. Continue promotion campaign on social medias. Continue networking with potential clients and answering queries. Review and analyse project performance and user feedback. | Update stakeholders on progress, user feedback and application success. Review and analyse project performance and user feedback. Monitor user usage, ensure cloud server usage still within budget. | Ongoing application support and debugging. Start coding up on additional features to add to application. | Ongoing application support and debugging. Start coding up on additional features to add to application. Expand upon database design/requirements where necessary. | Ongoing application support and debugging. Start coding up on additional features to add to application. |
| **Week 14** | Continue promotion campaign on social medias. Continue networking with potential clients and answering queries. Monitor user usage, ensure cloud server usage still within budget. | Update stakeholders on progress, user feedback and application success. Write up report/summary on project performance and user feedback. Monitor user usage, ensure cloud server usage still within budget. | Ongoing application support and debugging. Deploy additional features to application. | Ongoing application support and debugging. Deploy additional features/database extensions to application. | Ongoing application support and debugging. Deploy additional features to application. |
| **Week 15** | Continue networking with potential clients and answering queries. Monitor user usage, ensure cloud server usage still within budget. | Present report summary review on project performance, user feedback and application success to clients. Present KPI/performance review to each team members. | Ongoing application support and debugging. | Ongoing application support and debugging. | Ongoing application support and debugging. |

Risks

Majority of the potential risks come from our usage of software and online services. With regards to our prototyping/mock up, we plan to use Proto.io for this purpose. From our experience with learning and understanding Proto.io, there is the issue in which it is limited in what type of interactions and actions can be simulated. Therefore, some components that have been planned out will not be simulated accurately or at all. This impacts our capability to quickly identify and resolve bugs/issues that originate from these unimplemented components. Such bugs/issues may only arise once we reach the software development stage and will hinder the project timeline.   
  
Additionally we have to think about the usage of cloud services since we plan to deploy a web application. Regardless of which one we use, there still comes the risk that the application may not be deployed properly and further configuration will be needed, hindering the project timeline. Additionally, there comes the potential risk where we have more users than projected which is generally a positive consequence. However, it also opens the possibility that the cloud service plan may automatically upgrade to accommodate the additional users and become a paid service. There would of course be constraints set to avoid such a situation but the possibility is still there. Hackers attempting to obtain the cloud service API key is a major security risk we need to prevent and be vigilant against, lest we suffer major consequences that may lead to the immediate shutdown of the application or additional billing.

Later on in the project where we need to decide on a Database Management System (DBMS), we need to consider in particular if we use a SQL/NoSQL DBMS. SQL has benefits of an accurate and robust database, but it does come general risks such as being too expensive to maintain, constraints causing conflict with its interaction to the software. Such risks naturally will cause delays to project progress and in some cases, halt it entirely depending on the scenario. On the other hand with NoSQL, it will be more high performing and quicker for querying. However this also means we need to place extra emphasis on our software development and implement data constraints through our code rather than the DBMS. Additionally, due to the lack of emphasis on data integrity that NoSQL has, the chances of bugs to the DBMS and application greatly increase.

With our choice of programming languages, we may not identify limitations and shortcomings until well into the software development stage. Delays to project timeline may occur due to bugs, lack of ability to program certain functions, and attempting to create a workaround that may have otherwise been easier in a another programming language. We also have to be mindful in the capabilities to interact and deploy with our choice of cloud service and even DBMS.

Group processes and communications

We are continuing the format for meetings from Assignment 2, aiming to hold 2 meetings per week, on Thursday and Sunday. The purpose of the meetings is to check on progress set for the week from every member, discuss if they need any help on their end, as well as discuss the assignment of new tasks, especially for members that have completed all their assigned tasks. This is conducted as a formal meeting on Microsoft Teams, where we are utilizing new tools such as a task board, as a rectification of the problems pertaining to task tracking from Assignment 2.

Bo has also set up a Discord Server, intended to be used as an informal, alternative channel of communication as it is easier to reach everyone there, having the application on mobile phones. Additionally, the use of Microsoft Teams chat has also been established as a means of communication, as if a member wants to reach out to a specific individual, they do not have to resort to the Group Channel and can do so on their accord.

Additionally, the tutorials like the way we conduct a Teams Meeting, but in more length and detail. Task allocation, progress tracking and other issues relating to the assignment are discussed both as a team, as well as confiding in Anthony for problems needing clarification and guidance on tools and processes to employ. Therefore, to summarize, we intend to hold a face-to-face meeting, in the form of the tutorial, as well as 2 additional meetings.

In the absence of a member in the meeting, they will be caught up by either Bo or Van, and discuss the tasks allocated to them, as well as understanding why they were not able to attend. For the writing component of this assignment, the tasks were split, to be completed individually. However, the advent of wireframing and creating the mockup, the team expects the number of times we communicate to increase.

**Skills and Jobs**

UX/UI Designer

BlockMarket is the next big thing in the space of project and productivity management applications. Our organization aims to help businesses and individuals visualize objectives in an easy to use, easy to understand manner. We are always incorporating innovation in our business; from new features to contemporary designs to meet current market demands.

**The position:**

We are looking to expand our product to a website platform and are looking for talented **UI/UX Designers** to help with our product design. Your role will be to is to deliver the user experience of our web product to the customers. You will be utilizing standard practices in UI/UX in developing wireframes, mock-ups, and user stories in developing the website. You will be working together with internal and external stakeholders in meeting business objectives.

**As a UX Designer, you will:**

* Work with different stakeholders including Product managers, marketing, and engineers
* Develop wireframes, prototypes, and mock-ups to visualize our product
* Develop well-written, in-depth user stories
* Adhere to Agile framework in designing the UX and UI
* Strong communication skills when presenting to stakeholders
* Learn and apply the best design practices from up-and-coming design developments
* Iterate through design models based on customer feedback in an Agile manner

**Skills and Experience:**

* Have a degree in Design or related field
* Previous Experience in UX/UI Design, desirably with web applications
* Proficient in Figma or other online collaborative design tools
* Have an understanding of CSS, HTML and Javascript
* Ability to interpret business needs to design outcomes
* Strong communication skills and proven ability to collaborate with internal and external stakeholders
* Understanding of User-experience, desirably with web applications
* Understanding of working with the Agile framework
* A proven track record of knowledge on Usability testing

**Why choose BlockMarket?**

We are a small, but growing team that strives to develop an environment where everyone feels valued, comfortable, and respected regardless of their background. We have a great work-life balance orientated approach to management where we put our employees first. We also offer work-from-home arrangements as well as career development opportunities.

Advertising Specialist

**About BlockMarket**

We are a new tech upstart looking to bring a breath of fresh air to the productivity software industry. We aim to develop a platform that makes organising work a simple and easy experience. We are passionate about what we will bring, determined to make an lasting impact, and help others grow and thrive.

**About the role:**

We have an amazing opportunity for an Advertising Specialist to join our growing team in a permanent full-time position. Do you have a passion for media, client service and want to be part of a new exciting change?

Who we are looking for:

* 1-2 years proven work experience in social media advertising (LinkedIn, Instagram, Facebook)
* Capable of working independently and autonomously
* Excellent communication skills
* Strong organisation and time management skills
* Great work ethic and desire to grow with the organisation
* Comprehensive understanding of digital & web marketing
* Experience developing and deploying successful ads
* Experience with Salesforce/Google/Adobe Analytics desirable but not essential
* Bachelor of Communication/Media desirable but not essential

Role duties:

* Stay up-to-date on the latest digital market techs and trends
* Conduct workshops and market research to develop high performing and innovative social media advertisements
* Develop strong relationships with investors and clients
* Maintain advertising KPIs across social media channels (LinkedIn, Instagram, Facebook)
* Communicate and work with members of the team such as the project manager, software engineer, and UI/UX designer.
* Use data analysis software such as Google/Adobe Analytics to identify market trends

**Why choose BlockMarket?**

Here at BlockMarket, we strive to create a culture where our staff feel safe, valued, and comfortable. We offer exciting and challenging work that greatly rewards you for your passion and dedication. We offer flexible work-from-home arrangements as we believe everyone should have a healthy work-life balance. We have an interest in growing our team and therefore we are also invested in your development. We offer career development opportunities, on-going development support and will work with you to create a personal development plan. When you join us, you will be supported so that you can thrive and become the best person that you aim to be.

Project Manager

**About BlockMarket**

Block Market is a start-up creating a productivity app for the masses, our goal is to allow work to be organised by individuals or companies in a way that is intuitive and easy to understand, yet very powerful and capable of assisting those who use it in making the most out of their work.

**About the position:**

We are looking for a project manager to lead our team to ensure that this project can become realised to its full potential, this means overseeing the progress of the creation of our application to ensure that it is running promptly and without straying too far away from the resources at our disposal.

**Roles & Responsibilities:**

* Managing a team, of developers, designers, and programmers to ensure the project remains on track
* Anticipate potential problems and come up with contingencies to work around them
* Maintain positive, professional relations with stakeholders and set correct expectations
* Identifying risks and managing them to ensure the project moves along smoothly
* Monitor the progress of the project to ensure consistent headway is made

**Requirements:**

* At least 4 years of experience working as a project manager.
* Good commutation skills; must be able to direct and communicate information to multiple departments effectively.
* Technical literacy in languages like HTML, JavaScript, SQL
* Experience managing projects involving IT
* Ability to take charge of the situation
* Resilience against potential problems and setbacks
* Organisational skills and detail-orientated

**Why choose BlockMarket?**

Here at BlockMarket, we like to practice what we preach and make sure each employee is reaching their full potential, and we believe the best way to achieve this is by creating a positive workspace for everyone, this means a healthy work-life balance, working from home opportunities, and an overall supportive environment. We also want to make sure that all of our staff grow and develop their skills while they’re employed here.

Software Engineer

**About BlockMarket**

BlockMarket is a wonderful, easy-to-use productivity platform that helps a range of customers from individuals to industry leading companies grow and thrive.

At BlockMarket, our purpose is to make life as easy as possible through organization. This purpose sits at the center of everything we do. We support our people to do the best work of their lives so that they can thrive for their goals.

**About the role:**

As a software engineer, you will be responsible for actively contributing to the design and development of an intuitive and responsive user face that is smooth and eye-catching.

You will be working with colleagues to build, develop and deploy effective and efficient code. Working closely with the development team to ensure that projects are delivered correctly and on time, including:

* design, build and maintain applications/tools to increase application efficiency
* collaborate with team members and key stakeholders to gather deep insights about the challenges and opportunities to improve our software application
* significantly contribute to continuous improvement initiatives of our systems and processes, to help define best practice testing standards and drive improved outcomes

**Minimum Qualification:**

* Bachelor’s degree in Computer science or Software engineering, or equivalent
* 2 years of experience as a software engineer
* You’re proficient with any part of your technology stack: React, Node.js, Typescript, PHP, Bootstrap SQLite.
* Willingness to jump divisions - e.g. front-end to back-end

**Preferred Qualification:**

* Master’s or PhD in Computer Science
* You have experience debugging performance issues in modern browsers across multiple platforms.
* Ability to ship high quality, well tested software through automation, proven best practices and appropriate design patterns
* In depth knowledge about modern frameworks - front end and back end
* A growth mindset to actively seek learning opportunities and strive for continuous improvement

**Why BlockMarket?**

At BlockMarket, we support many types of flexible working arrangements that allow you to balance your work, your life and your passions. We offer a great remuneration package including performance bonuses and a range of leave options to suit your well-being. Our work environment encourages continuous improvement and career development and you’ll get to work with the latest technology.

We have a collaborative and inclusive and collaborative culture that we are exceptionally proud of. Having a diverse workforce is a strength that enables businesses, including BlockMarket, to provide the best to our customers and to attract the top talent to help us succeed. So, from the moment you step through our doors, you’ll feel welcome and supported to thrive for the best work of your life.

**Group Reflection**

**Bo’s Group Reflection**

One of the major improvements we’ve made was making consistent commits and updates of our work to the Git Repo. In addition, we utilised Microsoft Teams ‘Task’ feature to assign and track each member’s task checklist. As a result, we were able to accurately track team and individual progress and know which tasks were still outstanding and therefore needed resourcing. More tasks were completed on time for the first half of the assignment period, however we still ended up having people not deliver their tasks on time. Despite our troubles in Assignment 2, it seems that team members repeated the same mistakes and habits of non-attendance, lack of contribution and lack of communication during the later course for Assignment 3. At time of submission, we were still in a better position than in Assignment 2, but we still needed to ‘crunch’ for the final submission. Overall, my experience working with this group has been very mixed. Whilst I recognised that each member had strengths that theoretically created a great team composition, these strengths proved useless when individuals did not contribute as they should have. In my opinion, the lack of consequences contributed to the on-going team issues especially because some members did not take the assignments seriously.

**Daniel’s Group Reflection**

*What went well?*

Compared to the last assignment, we were certainly a lot more organised this time around and stuck to our deadlines closer, allowing us plenty of wriggle room to allow for setbacks. I also think our increased use of GitHub this time was very beneficial, as we could each work on files on the word processors and/or other programs of our choosing.

*What could be improved?*

The obvious thing that could be improved is communication between group members, there were a few points where some group members were unreachable, some of this was excusable due to unavoidable circumstances, however, some absences were left unexplained, something which I was guilty of myself.

*At least one thing that was surprising*

I was surprised by how well everything came together at the end, the prototype looks especially nice and works about as well as intended. I was also surprised by how less stressful it was despite the setbacks we’ve had to face.

*At least one thing that you have learned about groups*

I’ve learned to always expect the unexpected, sometimes people will have things happen in their lives or will be unavailable, these must be accounted for.

**Van’s Group Reflection**

With the completion of Assignment 3, there have been quite a few variables identified in the previous Assignment in which the team made good improvements on. For instance, from Assignment 2, we found that the task tracking system that we used was quite unreliable and resolved ourselves to implement a better system that not only allowed for better accountability, but also acted as a surveillance. The use of Team’s inbuilt Task function allowed the team to make better decisions in administrating work appropriately and allowed us to identify items stuck in the backlog as outstanding early on, resulting in the ability to act and resolve these issues quickly. With the full capacity of the team, we demonstrated the ability to operate as a cohesive team during the early phases of the former half of the Assignment. Despite this slight improvement, there were many problems that plagued us in the previous Assignment that become apparent again. These pertain to the issues of non-attendance to meetings and tutorials, non-communication to the established channels, and probably the most impeding, the procrastination and non-completion of assigned tasks. These problems amalgamated with the high number of members showing a regression proved extremely irritating, forcing some members to take on more than their fair share of work again. To provide an analogy, the prototyping of the project was quite a demanding task but being co-signed to complete this with another member was reassuring only in appearances. With the other member demonstrating a lack of contribution to this task, I was liable to complete essentially, the whole project regarding prototyping. Consequently, I’ve had to put all my other subjects on the back burner, dedicating more time than I would have liked to in executing this task. From the collective Assignments, I have learnt that a Laissez-faire approach is only practical if everyone pulls their weight, and that sometimes, it might be best to play the villain to direct and manage a team.

**Hayden’s Group Reflection**

I had high hopes of what the team would be able to achieve during this Assignment, especially considering that I could have done a bit more on my part for the previous Assignment. I think that we managed to do well in the first few weeks, where everyone was participating, and getting their tasks done. However, due to my personal circumstances, being involved in a car accident, and getting COVID to name a few, I have been unable to contribute what I would have liked to during this Assignment. I have been able to join late in the final day of the Assignment and been able to update everyone on my circumstances, as well as get a general idea of how the group has performed over the last few weeks. The most surprising part about this assignment for me would be the fact that I was thrashed with a lot of unexpected events. I have been trying to update my status, mainly with Bo, via text about my status throughout the weeks, but in hindsight, I could have also updated the team. A thing that I have learnt about working with teams is how resistant they can be, especially when adapting to various circumstances.

**Russell’s Group Reflection**

This time around for Assignment 3, we had a really good start. Everyone was on top of their tasks and we were on track with our overall plan. This was short lived though as unfortunately most of us ended up not contributing their parts or participating in meetings. Though not as bad as Assignment 2, we still ended up being behind on some work and still need to work on ‘crunch’ to finish Assignment 3. There was a lot more structured plans this time around and faster response times so our ‘crunch’ was not as bad this time around. I think we could have easily improved by simply not repeating the same mistakes in Assignment 2 and dedicating a bit more time to our work as a team. What I found surprising was that deploying the React website to Git Pages was much more difficult than I had anticipated. We ended up spending a lot more time on this particular issue than we’d had like to, but were able to accomplish it in the end. I’ve learnt from this group that communication is still key to good group work. Had we at least focused on this aspect, than members of our team would not be frantically rushing to get stuff done. For myself, I will take this into account for future group work and try staying in touch with my team members.

**Overall Group Reflection**

As a team, it was agreed that there was some good progress and contributions made in Week 9 to Week 10. Everyone in the team at that point in time complete their allocated tasks on time and we were on track with our assignment. Expectations were high and the overall outlook was that we would be completing Assignment 3 without trouble. Unfortunately, shortly into Week 10, there continued issues amongst the team of non-attendance which resulted in many meetings needing to be re-scheduled. A lack of contribution became evident alongside members failing to deliver their tasks. All these issues were further expedited by a severe lack of communication. Learning from Assignment 2, tasks were quickly re-allocated to individuals who proved reliable and capable of completing these tasks on top of the work already allocated to them. Perhaps what was most concerning were occasions where members advised that they would complete a task by a deadline and not to worry about their part. What naturally resulted was that when the deadline came, it was found that members did in fact not complete or in some cases start their task. These occasions were where most of the task reallocation had to occur. A lack of transparency was crucial yet members still continued to not at the very least advise if they could not complete a task. This placed the team on numerous occasions in a position of rushing work, being unsure if tasks needed to be reallocated, and eventually ‘crunch’ time. What was surprising during this assignment was the fact that despite the major troubles we had during Assignment 2, the team still repeated the same mistakes and habits for Assignment 3. Thankfully, position that we were in for Assignment 3’s submission, was still much better compared to Assignment 2’s submission. Working within this group has been a valuable learning experience for all members. It has taught us that working in a group does not mean the workload for each member would be reduced, nor would our quality increase. On the contrary, some members needed to take a significant amount of workload whilst there were other members who had small amounts of workloads. We’ve learnt the quality of work goes only as far as the effort of each member, so it was never guaranteed that the quality would be consistent across the board. We’ve learnt that despite there being consequences of reduced marks based upon contribution, it was clear that some members unfortunately did not take these consequences seriously. Members will be more selective in the future group work to avoid encountering the same issues we’ve encountered.

**References**

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