

Team Rhino: DINEIN restaurant application

Github Repository:

<https://github.com/Anthony4O/RhinoAssignment3>

Github Website:

<https://anthony4o.github.io/RhinoAssignment3/>

Team Profile (Everyone for their own bit)

Anthony Forti – S3841083

I am Anthony - born on the 15th of January 2001. I am 21, and in my fourth university course, hoping this one will be the last and final one, leading me to graduation. I have previously undertaken a Bachelor of Business, Bachelor of Computer Science, and an Associate Degree in IT. I am of Italian Descent but was born in Melbourne. I went to Penleigh and Essendon Grammar from Kindergarten to Year 12 and graduated VCE in 2019. I currently work at EB Games as a Senior Sales Associate, with the hopes of achieving assistant manager within the coming months. I can understand basic Italian, but cannot speak it very well at all, and am decent with coding languages such as HTML or CSS, however rusty as the last time I coded was in 2021 Semester 1. I thoroughly enjoy gaming in my time off from work and university, however I have started to dedicate more time towards working on my car and going to car meets. I have additionally created an Instagram page for my car to remain social with friends, but also post regular updates on what I am doing to it and share insight to others wanting to tackle the same projects. (@shadowvf2). I have one pet cat named Louie, and three cats at my partner's house. However, it feels like a lot more than three as her house is always full of animals, with her mother being a dog breeder and cat rescue. The only downside of that is I am badly allergic to cats. I played sports throughout high school, but never found one I really liked other than Badminton. I hope to regain an active lifestyle this year however and have started a membership at the local gym.

I have grown up around IT and technology for as long as I can remember, with my first gaming experience to memory being playing games such as Club Penguin, Roblox, Minecraft and an F1 racing game. I grew to love technology, often wanting to take apart my dad's old computers he did not use anymore to see how they worked, however breaking them in the process. Moving on around 5 years, I had gained the basic skills to troubleshoot family members and friends' devices, through the help of YouTube channels such as LinusTechTips (formerly NCIX), and JayzTwoCents. Graduating high school, I was not sure what I wanted to do; I did not get accepted into the course I wanted, the Bachelor of IT, but instead received an offer for the Associate Degree of IT instead. This helped me land a job at Centorrino Technologies, where one of the prerequisites was to have or be studying a degree in IT. This job primarily ignited the spark of interest in IT as I was exposed to almost every facet of the IT sector. Centorrino Technologies is a major managed services provider in Melbourne and had jobs all the way from sales and inventory management, to working on the frontline in schools, providing IT support. The latter part of that made an impact with me, as I saw desktop support officers arriving and leaving every day to go fix IT issues at schools and businesses and this led me to envisioning myself doing this job in the future. I would love to move into System

Administration / Engineering, or starting off as a Desktop Support Officer, anything tech support / fixing really interests me. I have also worked at Beyond the Box, an authorised Apple repairer. I was employed as the check in staff, which required basic troubleshooting, diagnostics, testing, and setting expectations for clients.

Emily Ng – S3842921

I am a first-year full time student studying a bachelor's degree in information and technology. I grew up in a loving Asian family and was taught to speak Mandarin from an early age. However, as I have grown older, my ability to communicate has weakened. My parents have been my biggest supporter throughout my education and the decisions I've made to reach this point. I was extremely fortunate that my parents did not conform to the typical Asian stereotypes of grades and success being the highest priority, as my family valued the learning and experiences a lot more. What prompted my initial interest in IT was my older brother, and all the games he used to play on the X-box, PSP, and Gameboy, I loved watching the animations and the gameplay of his games; GTA, FIFA and Halo. I was also an ICT leader in primary school, and my role consisted of altering and enhancing our school's main website, as well as assisting teachers with any fundamental IT issues. It was a fun role, and it fuelled my interest even further. Technology has always astounded me with how it has revolutionised and improved our daily jobs.

John Alexandrou – S3972141

I too am Australian born with Greek heritage. I started studying IT this year after transferring from Law which I transferred to from science. I am of Greek descent with all my grandparents being born in Greece; however, both my parents as well as my siblings and I were born here. I graduated Year 12 in 2019 and since then have been attempting to find a degree that suits me. Much to my extended family's disappointment I only speak English. In my free time I enjoy skateboarding and playing games. My favourite video game of all time is Splinter Cell: Chaos Theory for reasons I should not have to explain. My interest in IT began from a very young age, I remember an old IBM PC that my dad had set up for my sisters and I that I would spend hours on playing 3d pinball and other small games. From then on, I have developed a love for computers, particularly developing interest in networks, security and the internet from films and shows such as The Matrix, Mr. Robot, and particular YouTube channels focusing on the dark web and other internet mysteries.

John Gionis – S3901535

I'm Australian born with also a Greek ethnicity. I am in my second year of studying my Bachelor of Mechanical Engineering at RMIT. I have a massive interest in mechanical systems, particularly revolving around land transportation (cars, motorbikes, trains, trams). I especially love cars and very commonly spend my free time working on mine. My interest in IT mainly involves hardware and how it operates. This hardware is of particular interest when it controls and operates physical/mechanical systems, so computer and machine can work together (such as a car ECU). This developed when I started pulling apart everything to see how it worked, particularly stuff like tape players, digital clocks, and old desktop computers. As I got older, I developed an interest in older handheld technology, particularly old iPods after becoming interested in a YouTube channel called Dankpods. I have chosen to study Mechanical Engineering at RMIT because the course was highly recommended to me for the way the course is executed, alongside the industry connections RMIT has. I also chose RMIT because a lot of my friends from school chose RMIT, meaning we could keep in contact alongside developing other friendships.

Jaideep Singh – S3948197

My nationality is Australian, but ethnically I am from India, and I speak both Punjabi and English. I graduated high school last year and am currently completing a Bachelor of Information Technology. An interesting fact about me is that both my grandparents were born in Pakistan, and that some of my great grandfathers migrated from Iran and Afghanistan. Other facts about me are that I lift weights, am a fan of the UFC (GSP being my goat), and my favourite pastime is going out and drinking. My interest in IT started from an early age, when my dad came home in 2010 with a dusty old computer that his boss was throwing away. I would use that computer 24/7 in awe of this new thing (for me at least), known as the internet. I think coming from a country and environment who at the time did not have a lot of technology, I became instantly interested in all the new phones, computers, and other technology in Australia. I started watching youtubers, such as MKBHD, bit wit, Jayztwocents, Austin Evans and LinusTechTips, who all gave me insight to new software and hardware, and even inspired me to build my own computer after saving up. Additionally, I have always been fascinated by space and have dreamt of being an astronaut since I could talk, however math really is not my strong suit, so after research I discovered the importance of programmers, and other IT related experts required to be in the space industry, and thus pursued IT at RMIT.

Alexander Mirtsopoulos – S3838798

I'm an Australian born Greek who is studying the Bachelor of Information Technology course at the Royal Melbourne Institute of Technology. I am always looking forward to studying and expanding my knowledge, being always ready to learn more. I took an interest in Information Technology at a young age, when my dad had first introduced me to a computer and the concept of Videogames. What had caught my attention more than the actual Videogames themselves, was the thought of how they were created. For this reason, I'm a really big fan of all things technical, but mostly of online multiplayer Videogames. A Videogame I grew up on and fell in-love with over the years was League of Legends, and it has always been a dream of mine to play for a professional team and be competing at the highest of leagues against other professionals. I chose to study at RMIT due to its accessibility and how open the campus is. During my studies at RMIT, I expect to learn how to properly engage myself and have enough preparation to branch out and search for a job which I will love.

Group Processes (John G)

Between our team members, it is agreed upon that our group worked reasonably well in the completion of assignment 2. Our group got the assignment done and did not have major conflicts. Our members' willingness to assist each other was a particular strength. If someone was struggling with their assigned task, other group members would assist to get the persons' task completed.

I feel like our group may need to communicate and discuss verbally on a more frequent basis. We are implementing more frequent group meetings (at least once per week) between group members either on a call or in person. This will benefit every group member as every group member can be properly informed on the group decisions, alongside instructions set out to them. This also will show that all the group members are dedicated and willing to contribute to the group, as there were various teammates that missed multiple meetings.

Career Plans (John G)

These ideal jobs have not changed since Assignment 2. The following table lists these jobs below:

Alexander	Jaideep	John G.	John A.	Anthony	Emily
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Professional LOL Player	React Developer	Mechanical Engineer	Security Engineer	Systems Engineer	UX Designer
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The employment pathways of a majority of the group members have a focus on completion of tertiary study, alongside gaining experience within their specified field before they can start their ideal employment. Other Similarities Within the Group are listed below:

- Jaideep, John G, John A, and Anthony all idealise jobs that focus on the development and/or maintenance of a system.
- Emily, Jaideep and John A all require some sort of coding knowledge or software development knowledge
- Anthony and John G's ideal jobs also entail hands-on hardware implementation and management within their tasks.
- All team members apart from John G have IT-based ideal jobs, thus requiring some sort of specialised computer skill.
- All team members require communication and collaboration skills for their ideal job.
- All team members are looking to solve some sort of problem, thus requiring problem solving skills

Whilst there are similarities within the group, each team members' specific ideal employment opportunity requires a vastly different specific skillset for consideration of employment:

- All team members apart from Alexander would directly work to solve a problem that a client has approached them with. Alexander utilises his problem-solving skills in the League of Legends videogame. However, Alex's decisions would affect himself and his team rather than a paying client. This does have an advantage as this creates freedom of choice. This would still require good communication and collaboration skills.
- Jaideep's role is focused on databases and management of a team of developers. This means that he would be a team leader. This would mean that Jaideep would be responsible for leading a team of developers to meet the clients' needs. Jaideep would require good team leader skills. Jaideep's role would also involve coding for development. This means that Jaideep would need to possess sufficient knowledge of coding languages, such as Git.
- Emily's role is to design, develop, and implement the front-end of systems for clients. Emily must be able to work collaboratively within a team of front-end developers, where they would be able to meet the criteria set by the clients. Emily's ideal job is also quite Software based, thus requiring extensive knowledge of computer languages, such as JavaScript.
- John G's role is focused engineering and recommending improved elements within a virus control lab. This requires engineering knowledge, alongside communication and collaboration to the lab staff about improvements.
- Anthony's ideal Job is an ICT Systems Engineer. This consists of implementing, management and maintenance of a server infrastructure. Anthony would require a Thorough understanding of servers and server equipment, alongside excellent collaboration skill within his team to achieve completion of the required tasks in this job.
- John A.'s Ideal job is a cyber security engineer. This consists of coding and setting up security measures to prevent malicious activity by an unwanted individual. John would need to have

extensive knowledge regarding cybersecurity, alongside good cooperation skills to meet the criteria of the client.

Tools (Emily)

A computer device is needed for both the original programming of the application and the creation of the UX design effects, a shared Github repository for the application's framework. We would require a mobile device (IOS or Android) in order to test this application and its framework. In order to integrate a map when the user is choosing a restaurant, the application would additionally need a Map API key.

Following the initial trial of the application, if we are pleased with the results, we would conduct a more thorough test with users. To do this, we would use stratified sampling to compile a population of users, allowing us to test the application with a variety of users who may experience different challenges, such as language barriers or visual problems. Since the software is adaptable and suitable for a wide range of ages, we would strive to gather research on the problems that these users might encounter with it. After that, by analysing and enabling additional trustworthy tests, we would continue to build the programme while taking into account the feedback of these people. After that, we would create a series of scenarios with profiles and conduct user testing to determine how simple it is to carry out important fundamental actions that users are likely to perform frequently. Regarding the user population, we would consider implementing online user testing. To do this, we would only submit our application to a website along with a set of instructions for accessing the app. The app would then be made available to thousands of users throughout the world via the platform. These users document their interactions with the software, including live commentary and comment recording. However, we would conduct surveys and use websites like surveymonkey.com and oneopinion.com in order to gather a stratified sample of consumers. We would need somewhere between 50 and 100 users to get a fair sense of how well the website fits the requirements.

Project Description (John A.)

Having completed both Assignment 1 and Assignment 2, you will have thought about a personal project as well as one with your group. In this Assignment you are to come up with a plan for group project, and to develop it as much as possible in the time available. Naturally you will be very unlikely to complete your project; in fact, most worthwhile projects are “endless”, in that there is always more that you can do, more features to be added, more levels to be designed, or new devices that could be used.

Naturally the choice of what to do is up to you, but you should take the following into account when making your decision.

- The passions, interests and skills of your group
- IT industry trends
- What would assist you in your career plan
- Feedback from Assignments 1 and 2

Your group will have developed some ideas in Assignment 2; it is fine to build on and refine these for this assignment, or to develop a new project based on feedback and/or what you have learned since.

Overview (John A.)

Topic

The purpose of the DINEIN restaurant app is to provide a convenient and efficient way for restaurant customers that are looking to dine in to find available seating in the restaurants of their choosing, as well as further customisation to the choice. The app will use Augmented Reality to provide the user with a layout of the restaurant, where they can then choose from available tables and the subsequent size and layout of the table if available. All the available options will be chosen by the restaurant, they will be able to customise what users can and cannot interact with.

Motivation

Delivery and takeaway options have become very readily available in recent years, with applications such as Uber, Menulog and Deliveroo all being extremely popular for consumer convenience. However, dine in options are still quite lacklustre, with even popular options on Uber being extremely barebones. Now in 2022, after two years of lockdowns and COVID-19, more people than ever are wanting to be out of the house and enjoying restaurants in person with their loved ones. A convenient app such as this will provide an option for easy dine in bookings, allowing the simplicity found in home delivery apps that is not popularly available in the current application market.

Landscape

While there are similar apps available on the market as of now, their functionality does not provide the same convenience and options available on this app. While the apps provide timeslots for specific numbers at restaurants, they do not provide the options, customisation and augmented reality experience provided by DINEIN.

Detailed Description

Aim (Jaideep)

To allow customers to easily find and book reservations at nearby restaurants, with the aim of integrating the app features to a bigger company/application such as uber eats.

Goals:

Goal 1:

Allow user to create account, login.

Users should be presented with a screen upon initialization of the app which prompts them to create an account or to log in, this is an important goal, as the booking system uses account details to let restaurants know who has booked at what time.

Goal 2:

Allow users to book reservations quickly and simply.

Booking reservations is a given, as it is the primary purpose of the app. However, making it simple is a major goal for us. The app is directed at people who want to take the hassle out of making dining decisions, therefore booking should be straightforward, easy to locate, and easy to understand once a booking has been confirmed.

Goal 3:

Create a map/direction system, to help users locate nearby restaurants, as well as give them directions.

One of our main mindsets with the app is to create an all-inclusive 'package' of sorts, allowing users to reserve at a restaurant without knowing the whereabouts felt out of place. Therefore, rather than leaving users in the dark and having them google for directions, we felt a map with directions would be helpful.

What are the most important parts of the project?

The most important parts of the project are booking reservations for customers and creating an account for them to add information.

Which parts should have priority over others?

While a map would be beneficial, successfully making reservations and user accounts needs to have higher priority, as without these features the restaurant will have no knowledge of any reservations and the app would have no purpose.

If we only have enough time or resources for one of our goals, which one should it be?

If only one goal was possible, it would be booking reservations.

Plans and Progress (John G + Jaideep)

What the project will do and how:

There are a few main features of the project that we focused on, firstly was account creation. In order to avoid having the username fill out tedious forms we plan to incorporate using google/Facebook accounts to sign in and store information, this can be done through an API, the accounts are used to store user information (such as name, card details, bookings), information which can be used for each booking made by the user so that they don't have to constantly fill in details during each reservation. We incorporated this into the main page of the app, which opens upon installation and launch, so that the user must create an account in order to use the features.

The next feature is obviously, reservations. Reservations can be made through the 'search' page on the app, which can be found after switching to the tab at the bottom of the screen, the page greets the user with a text input search bar allowing them to type in the name of a restaurant, a menu item, menu style, and a drop-down menu with filters to allow for further specification. The search bar is also accompanied by a map, which corresponds to the nearby area of the user, after each search the map also updates with the location of the menu. This will be done using the google maps api once the project is being programmed, however for the design stage we used the 'mapsicle' plugin to create a scrollable map, as for the reservations in order to store information, we are planning to build a database in the future so that information can be stored and accessed when needed. Another key part are the restaurants that will be implemented into the app, in order to import these locations we will look at open table's restaurant list/data and add accordingly.

How far you have come with developing features/outcomes from project:



Sign in Page:

Our application colour theme changed from its original concept to a navy blue and pale yellow theme, the above screen showcases what to expect when first downloading the app, or logging out, we have not been able to implement the saving and creation of usernames and passwords yet, however, we plan to incorporate databases in order to save the information. Additionally, we plan to add google and Facebook account options using the corresponding API to allow users to use their pre-existing information and emails.



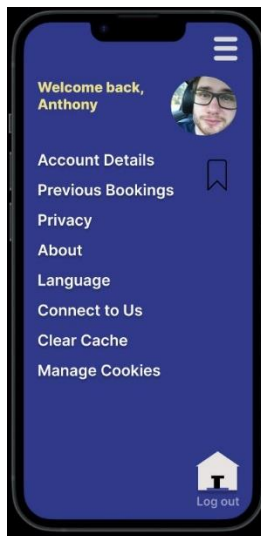
Restaurant Page:

The above page shows an early design of what a restaurant page could look like, the times below show the available table bookings, the 'morning', 'midday', and 'night' buttons will change the bookings accordingly however this function is currently only a design and not yet working. In the future we also hope to add a 'more' option, which will give additional options about the restaurant. Such as the menu, location (links to the in app map), dress code, parking, and other critical information.



Confirmation Alert:

The above pop up menu, illustrates the alert the user receives once a booking has been confirmed, currently the design allows for people to select a time and confirm, prompting the message. In the future we wish to include a link system, which sends a link to the users corresponding email address, as well as a bookings page in the user account menu, which allows users to show the restaurant their booking once they have arrived in person.



Account/Settings menu:

The above image displays the apps setting/edit page. Each Subheading is a link to a page which allows users to edit or change the corresponding information, currently while the page is accessible, the links are not working and information is not able to be stored or updated. We also wish to add a 'my bookings' link, which shows past and current table bookings made by the user.



Search and Map page:

The search and map currently allow the user to scroll through the map, and sift through nearby restaurants, the hamburger icon is also clickable and allows to navigate to other pages. While the information is not accurate (doesn't actually gather real nearby restaurants), the design is a nice blueprint of our final product. In the future, we hope to incorporate a filter option underneath the search bar, a drop menu that allows the user to customize preferred cuisine/menu, environment(outdoor/indoor/rooftop), number of guests, and date/time of booking. The map will be implemented using google maps api and use the search keywords as well as the users location to update over time or after each search.

The 'story' of the project, how it began, progressed, what stages of the plan you are up to:

Our project began on a group call, where Anthony mentioned the idea of a restaurant booking system. However, the initial plan was different to what we would end up going with, the original idea was based on both hardware and software features, it involved a table system with LEDs, which

would change colours based on whether the table was vacant, booked, or free. The system involved an app/website design that would allow customers to book tables, cancel bookings, and for restaurants to change the colour of the lights based on what customers book. Nevertheless, this design presented a few issues that were difficult to address, the system would have to be adopted by restaurants which, getting the hardware, the LEDs, the wiring, and having it all sync up to a computer is difficult and time-consuming work; and beyond our group's current capabilities. Upon further meetings and discussions, it was decided that the hardware component (the LED system) would have to be ditched for a simpler approach. Our new plan revolved around an app with a reservation system, allowing customers to book tables at nearby restaurants, while viewing the restaurants' information and details. Yet, we felt this idea was far too 'common' and frankly a boring idea for an app. During the third assignment, we decided to include a virtual walkthrough feature, which would give the user a 3d walkthrough of the restaurant, allowing them to decide on tables based on the layout of the location. The inspiration behind it was to make the app more interesting and intuitive rather than a basic copy of other similar table booking services. While attempting to implement this feature, we used the 'vectary 3d' plugin which proved to be difficult to operate, a lot of our attempts seemed to not work, or only worked on single devices for brief periods of time. After further consideration and due to time constraints, we decided that a simple map feature to direct users to nearby locations was the best way to go as we hit a dead end in the process of creating an AR environment. Currently, we are in the designing stages of the plan, while there is no working prototype, we do have interactive designs on the username/password menu, the account settings menu, the booking confirmation page, and the search/map page. Most of the buttons are clickable and functioning, users are able to switch between pages and confirm bookings, however certain features such as a working search bar with results could only be programmed with the help of a database and a proper code editor.

Roles (John A.)

While roles have not specifically been highlighted for each member, Sections of the report have been sectioned off to individuals to take the lead on, but with everyone helping each other whenever it is needed. However, based on specific interests and personal skills, members have taken lead on aspects of the project. For example, Emily has taken the lead in the design of the logo as well as the layout of the application due to her interest in front end development and user interface design, though everyone is to contribute and take part in the process.

Scope and Limits (Alex)

The creation of our application "Dine-in: Restaurant Booker" is created with the intention to make a reservation at ease. We intend our customers to have the ability to last second have the ability to make plans at any of the selected restaurants within a reasonable timeframe. Although our application may be limited quite heavily by what restaurants allow our application to have access to their bookings, we plan that our ease of use, our ability to be reused, and our ability to book without having to interact with a worker may make things a lot easier for customers, especially if there's a language barrier if the customer intends to try something new. We intend for our application to be used for reservations, couple-dates, business dinners, team celebration pizza party's and so much more. The application will include a mapping system showing you where nearby restaurants are with available bookings and keep track of where you have booked before. Though as time is of the essence, our competed dream application for some time might have to stay as a dream, but with some more time and resources our application could make restaurant bookings an ease.

Tools and Technologies (Jaideep)

- *IOS and Android devices, in order to test the application, for bugs/errors/format/scaling*
- *Internet Connection*
- *Windows 8 or above desktop/laptop/computer, for programming/designing*
- *Invision for prototype creation, no licenses or purchase required*
- *Figma, for collaboration on design*
- *Microsoft teams, for meetings and communications*

Prior experience:

None of our team members has previous experience using any of the design applications such as invision or figma, however we are all quite familiar with the usage of computers, teams, and mobile devices.

Testing (Emily)

How will you test your project? How will you know when you have succeeded? Testing is not something that you should leave until the very end; often it is far more useful to have a quick and dirty "mock up" of a project and then do some (limited) testing, to and out whether you are building the right product. If your project involves user testing, you should describe in your plan how you will find the test users, approximately what number of people you will need, and what background (if any) is required. At least one paragraph is expected here.

Timeframe (John A.)

Weeks Members	1	2	3	4	5	6
John A.	Understand and agree on the project idea and tools required	Agree on specific roles and tasks required of individuals	Begin work on Project Overview, description, roles, and timeframe	Finish work on report sections, divide sections of application	Complete homepage/login page, search page, account page and a mock-up page of a restaurant.	
John G.			Begin work on Group Processes, Career Plans and plans and progress with Jaideep			

Anthony			Begin work on Risks and Skills and Jobs	prototype. Begin work on prototype.	Finalise website and repository.
Emily			Begin work on Tools, as well as set up repository and Design product logo		
Jaideep			Begin work on detailed description of the project, as well as tools and technologies		
Alex			Begin work on Scope and Limits of the project		

Additional Weeks	7	8	9	10	11	12	13	14	15	16
Members										
John A.	Build Restaurant database	Build account database	Finalise restaurant database system	Finalise account database system	Begin work on AR system	Continue working on said systems			Finalise project and goals	Publish application in functional state.
John G.										
Anthony										
Emily										
Jaideep										
Alex										

Risks (Anthony)

For our mobile app, 'Dine-in: Restaurant Booker', there were many risks associated with the project in the development and testing stages. Most arguably, the biggest risk when developing the app, was that we were running with a concept that all our group members have never previously developed mobile applications and have no experience with the coding languages or application builders. For example, for our prototype of our application, we were using a website called Figma. Figma is a mobile development builder for applications and websites, that provides an interactive experience into what an application will look like in its final stages. The risk we were facing with using this builder is that, only one or two members in our group have previously used this website, therefore the rest of us are very unfamiliar with it. As a result of this, our application may not be up to the standard that we would like, as at the same time as developing the application, we also had to learn the development side of this. Another side risk of this is that as we had to learn the builder at the same time as developing the application, it put a large time constraint on our deadlines, resulting in an uneven balance between learning the builder and creating features of the application.

Furthermore, a very significant and notable risk we had to consider was the short timeframe we had to produce the application. As there was only 13 weeks in the semester, with 4 of those spent being introduced to the course and finding groups, time became a scarcity, rather than a luxury. As a result of this, we had to put in place weekly meetings, stick to these times and use class time as effectively as possible, to distribute tasks and share the heavy workload. Lastly, as a result of bypassing this risk, we were able to successfully put our application prototype forward, finish all our reports within the specified time and have all features implemented and working properly.

Lastly, as a result of the risks mentioned above, there was one risk that overtook all our other risks by a large majority. This risk was not hitting the deadline of the end of Week 13 and having all our features working as intended on our application. We worked hard to assess these risks and tried our best to not make these a reality, ensuring that our application will be working as intended.

Group processes and communications (John A.)

From the beginning of this assessment task, the group looked at our previous assignment and analysed what can be done better. From there it was established that we were going to meet more often to stay on top of tasks and collaborate more in general. It was decided to meet every Tuesday and Thursday in class or in call depending on the availability of group members. Calls would take place on Microsoft teams, which allows them to be recorded and a transcript will automatically be made. If a group member cannot attend, we will inform them of what occurred during the meeting, and what is expected of them and everyone else for by the next one. Along with this, whenever needed the group can ask a question in the Microsoft Teams chat and whoever is available can respond and help.

Skills and Jobs (Anthony)

Technical Lead

For our up-and-coming application, a group of investors have seen potential in our 'Dine-in: Restaurant Booker' application and have given us funding to hire a Technical Lead to take us to the next level. This is a key technical role in which you will have the ability to have a large impact on the future of our application, through innovation and development. As the technical lead of our small team, you will primarily oversee all aspects of development, from coding to testing, and more. Furthermore, you will be helping us launch our application to the public market and provide our developers with opportunities for improvement. For this role, we are looking for a driven and independent individual who has extensive experience working in a team, while also in a management type role. Management experience is highly regarded for this position as you will be leading our team of developers. We are looking for extensive previous experience in JS, React and PHP, while also being able to quickly adapt to other languages as we see fit. The ideal candidate will likely have 10+ years' experience in full stack development, 5+ years' experience working in a team, and a bachelor's degree in an Information Technology related field, such as Computer Science. We would also require experience using prototyping solutions such as Figma, to show proof of concept of upcoming features, before time and money is invested into them to bring them to light. Furthermore, some key skills & qualifications we will require are; Advanced ReactNative experience with mobile apps, Strong MySQL experience, Significant leadership skills with experience in talent management and training co-workers. We are also looking for the ideal candidate to be a mentor towards our developers and share their skills for a well-rounded team.

React Developer

For our up-and-coming application, a group of investors have seen potential in our 'Dine-in: Restaurant Booker' application and have given us funding to hire a React Developer to take us to the next level. As a react developer for our application, this role will have a very significant impact on the application and platform. The ideal candidate will work in conjunction with the Full Stack Developer and the Technical Lead in the development of the application, however, will only report directly to the Full Stack Developer. Working with the Full Stack Developer, you will be required to create the framework of the application from the barebones, into a fully functioning application that is ready to be published to the public. Furthermore, once released, you will also be required to build new features, improve functionality and design for the mobile platform. Day to day key responsibilities will include, but not be limited to; Build and follow direction for our Mobile iOS and Android Application, Work with the Full Stack Developer and Technical Lead to find ways to improve the application, review underlying code for any security risks or code errors, and creating prototypes of new features. The skills and experience we are looking for include but are not limited to; a minimum

of three years' experience working and building with React Native mobile applications, MySQL experience, demonstrated experience in security practices and API integration, great teamwork skills and the drive to improve. This role will primarily be developing the application, with the aid of our Full Stack Developer and Technical Lead.

Full Stack Developer

For our up-and-coming application, a group of investors have seen potential in our 'Dine-in: Restaurant Booker' application and have given us funding to hire a Full Stack Developer to take us to the next level. We are primarily looking for a highly skilled Senior Software Engineer / Full Stack Developer who is comfortable leading a small team towards a common goal of developing our application. We ideally would like our candidate to be someone that has previously worked in a fast-paced environment, with many changes' day to day and someone that is adaptable to new situations. We expect at least 10 years of experience for this role, with experience ranging from mobile development to game development, either is preferable. We are looking for the following skills & qualifications as well, such as; 5+ years developing mobile and web applications, experience in either Ruby, Python or C#, experience working with a framework such as Kong or API connect, and experience working in Agile environments. This role will report directly to the technical lead and provide guidance towards our React Developer in terms of innovation and technological advancements. This role additionally has the potential to grow into a management type position once the company expands.

Product Lead

For our up-and-coming application, a group of investors have seen potential in our 'Dine-in: Restaurant Booker' application and have given us funding to hire a Product Lead to take us to the next level. As the Product Lead, you will be overseeing the development and management of the product, while managing its roadmap to completion and release to the public market. Furthermore, you will be overseeing the business strategy and goals, whilst also scaling growth and revenue in the Australian and New Zealand app stores. As the Product Lead, you will be responsible for building a market-leading campaign to bring this application to the forefront of all restaurants in the future, getting them onboard and replacing their pre-existing booking systems. Partnering with the Technical Lead, you will oversee the development and be notified of the latest changes in technology and innovation, and you will become responsible for providing this information to the client in a non-technical way. We are seeking an experienced product lead that has extensive experience working in a team, while also having a sales and marketing background. The specific experience we are looking for consists of experience working in an IT project, ability to coordinate tasks with different teams, provide marketing campaigns to scale our business, work independently while providing results, and lastly demonstratable experience in showing business scalability and growth. We are ideally looking for a candidate with a bachelor's degree, such as Marketing or Business Administration, but are open to all relevant fields. Our ideal candidate will have at least 10 years' experience in product development and leadership.

Group Reflection (Everyone)

Overall, our group feels like we performed quite well throughout the semester. This is because we felt like a majority of our group members communicated and collaborated very well, which is the key to good teamwork.

Our team established that group communication, collaboration, and teamwork was essential to developing good professional relationships within members. If every individual in the team showed excellent communication, collaboration, and teamwork towards the group, this would mean that every teammate can be trusted to 'pull their own weight' and submit adequate work, as well as gaining respect for showing dedication towards group work.

We also established efficient teamwork must not include bickering, disputes, and 'dud' team members in the team dynamic. Fortunately, throughout the semester, our team members did not have any major disputes and did not bicker with each other, which thoroughly contributed to the respect that each team member felt for each other.

For our team to utilise excellent communication, collaboration, and teamwork within each other, the group decided to try and organise in person group meetings or online Microsoft Teams group calls at least once per week, with more if required (see the message clip at the 29th of September). Collectively, our group specified the importance of these meetings, particularly the initial meetings where assessments would be broken down and analysed so that all the group members could understand what the assignment is about and what to do. From here, tasks within each assignment would be assigned to each group member. Follow up meetings were also important, as this would be the 'check in time' where everyone would ask about each other's tasks and how they were going with completing them. Team members could also ask for help with tasks or offer feedback and alterations to individuals to improve their work.

Most team members would make constant efforts to attend these organised meetings. These team members demonstrated active dedication towards the team achieving end goals. These team members further portray that they can be trusted because of their team dedication.

Attendance, call history and Teams message feed can prove this by looking at the call log of teams {Appendix}

As stated before, if no bickering, disputes, and 'dud' team members occurred, this would maximise our team dynamic and thus help with the completion of tasks throughout the semester.

Unfortunately, a few teammates were less outgoing than others. These individuals possessed the following detrimental traits:

- Lack of effort to attend meetings, with one individual not attending a single meeting the entire semester (one of many examples is transcript for meeting 3, 30-35 minutes)
- Little to no communication in general with other group members about what is going on. (View attendance for each transcript: you will see the same people not attending over and over again)
- Submission of incomplete, sub-par, or even no work at all towards main tasks, thus increasing workload between contributing individuals and/or reducing credibility of our group idea; inadequate work leading to a lower mark and less respect from the tutor.

It seemed that comments were also made regarding the reasoning that these team members could not show adequate contributions towards the team (see the message conversation at the 26th of September and the email clip shown below). The rest of the groups are unable to determine the validity of this statements, and therefore cannot criticize these comments. However, from our groups' understanding, these teammates made no attempt to submit special consideration or ask the tutor for an extension. Because from the other team members point of view, the lack of communication about what was going on with their life to the rest of us, alongside the submission of poor quality or no work, makes these individuals appear lazy and uninterested in the assignments.

The lack of communication, collaboration, and teamwork shown by these individuals negatively affects the team dynamic. The following was present throughout the semester:

- Irritation was shown towards these individuals by the rest of the adequately contributing team members due to the lack of communication or effort shown towards the assignments. The lack of contribution results in the contributing group members being required to do more work. The lack of communication from these team members provides further frustration because if they do then ask what was said in the meeting, we must explain everything again over text (reference the chat clip at the 11th of October)
- This was expressed to be equally as frustrating when these individuals could occasionally submit subpar work, causing the group to receive a negatively tainted assignment mark. This comes across as just a lack of care and selfishness as they do not seem to mind about the team result, it just appears that they would rather not put in the effort because they don't want to.

The resultant of these individuals' apparent demonstration with a lack of care, effort and dedication towards the group mass irritation and a major lack of respect and trust in these group members as they just can't be trusted to contribute anything of adequate effort towards the assignment. This overall had a major effect on the efficiency that our team could work as a whole. This was disappointing.

	Group Member Names:					
Questions on perception of group performance:	John A	Emily	John G	Anthony	Jaideep	Alexander
What went well in the group?	The group all communicated effectively and were honest and open.	The group was able to communicate effectively with each other	Team's ability to efficiently break down and assign roles in assignments	Collaboration Attendance	The group had an overall positive and friendly vibe	
What aspects of group performance could be improved?	Meeting deadlines and more frequent meetings.	Having more soft deadlines with the team.	Checking teammates' quality of work	Group communication Deadlines Team Meetings	Doing certain tasks earlier, and everyone attending meetings	
What was one thing that was found to be surprising because of completing this assignment?	Everyone was very open to ideas and not much debating.	How everyone was able to communicate so well despite commitments to other subjects	The lack of debate that our team members had regarding ideas and decisions	No arguments in terms of doing work	Finishing on time despite procrastination	

What is at least one thing you learnt about group work during the completion of this assignment?		It is difficult to coordinate with 6 people.	That it takes a whole team to collaboratively complete a group assignment as everyone has their own role	A group of people only works as best as the person who put in the least effort	Group members need to be more aware of deadlines	Not everyone will be willing to put in effort, and therefore some people may need to take additional responsibility	
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Appendix

Call Log

Chat Feed

Alex's email

Old mates message

Appendix

@ajlkn, S 2021, Massively, viewed 10th of August 2022, <https://html5up.net/massively>

Please see GitHub for Appendix Screenshots + Files.