

# Introduction To Information Technology (COSC1078): Assessment 3 – Our IT Project

**The Beach Boyz:**

Chris Turner | Connor O'Loughlin | Sean Shlemoon | Nate Winter | Kowsar Rahman

# Contents

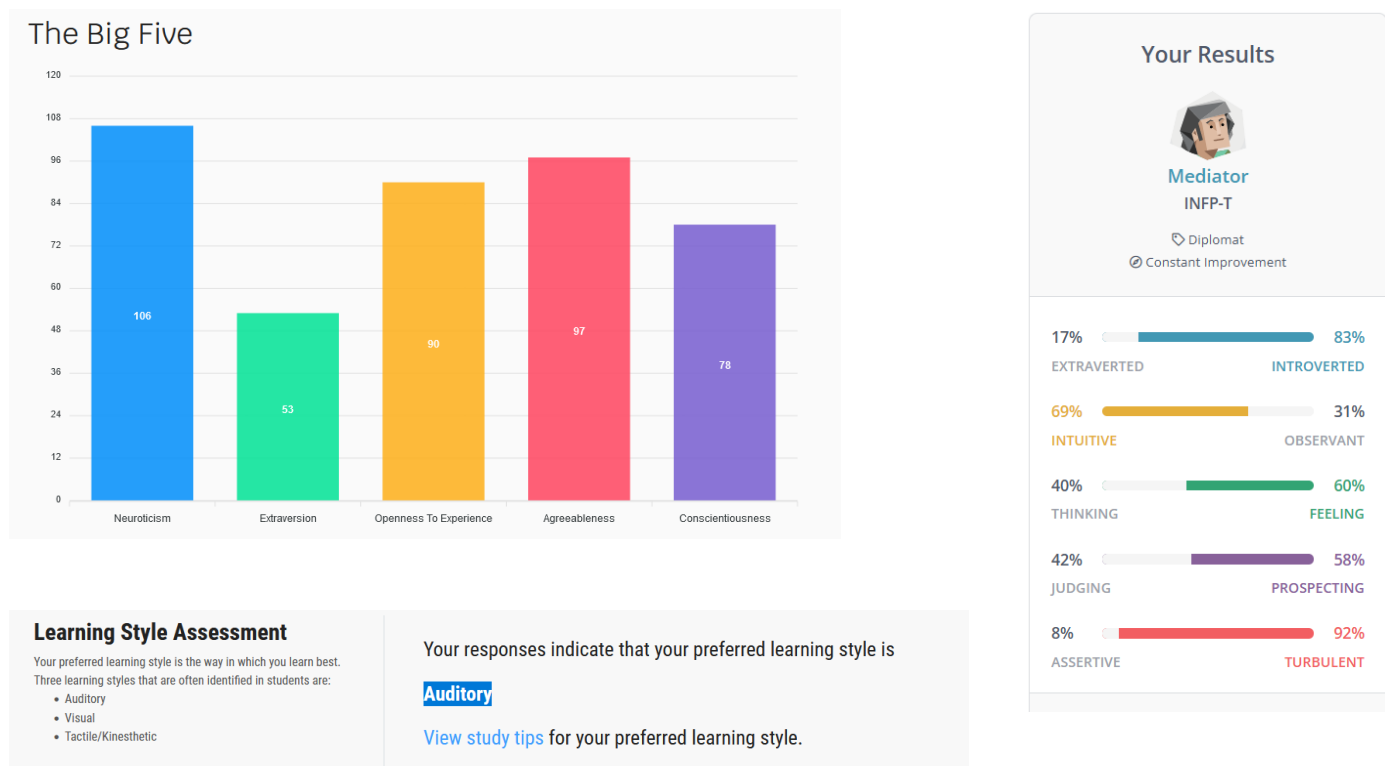
Team Profile – The Beach Boyz:.....	3
Group Processes (of assignment 2): .....	8
Ideal Jobs: (From Assignment 2).....	8
Career Plans: .....	9
Tools.....	10
Group Processes and Communications .....	10
Group Meetings: .....	11
Project Description: .....	12
Group Reflections: .....	24

## Team Profile – The Beach Boyz:

Chris Turner - s3931227

Chris is 21 years old and has started to study for the Bachelor of IT this year. He comes from an English background with their dad being born in the United Kingdom. His hobbies include the usual nerd type stuff such as video games, anime and has enjoyed learning 3D modelling + programming for the past few years on the side. They have had a long-term interest in IT since they were 13 years old with their main IT interests being in object orientated programming, computer hardware and reverse engineering of retro software. Chris went to study a Certificate IV in Information Technology in 2020, and then a Diploma of Software Development in 2021 – both at a TAFE, which is the only ‘formal’ IT experience they have.

### ***Personality test results – Myers-Briggs, Learning Style, Big Five***



### Test analysis:

The key take aways from this test to keep in mind while working in a group is the introverted aspect. Working in a group requires all team members to be active and actively communication with each other, solving problems and resolve any conflict that may arise which is the opposite of what an introvert would 'enjoy' so to say. It's possible that the agreeableness is a major trait as they wish to avoid that sort of confrontation, which at the same time may make it hard to provide constructive criticism. It will be important to get out of this comfort zone of being introverted in order to work efficiently as a group, but other team members should also keep in mind this is a foreign/uncomfortable experience for the person as to not too harshly judge them. Being overly self-critical may delay how soon the work gets completed also, which other team members will rely on.

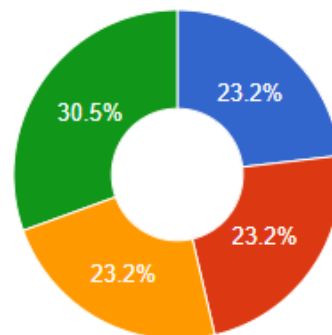
Connor O'Loughlin – s3949499

Connor has recently moved to Melbourne in the last few months in order to study at RMIT for the Bachelor of Information Technology. He is an avid fan of video games enjoys watching the occasional TV series. Connors interest in IT started quite recently when he took Applied Computing: Software Development in VCE last year where he enjoyed the programming aspect the most. The bulk of his current IT knowledge stems from classes he has took in the past where he learnt about different design concepts and a surface level know how of Python.

### Personality test results – Myers-Briggs, Big Five, Learning Styles



Learning styles pie chart



- Reflector style
- Theorist style
- Pragmatist style
- Activist style

Factor	Factor label	Raw score	Score percentile
I	Extroversion	25	
II	Emotional stability	48	
III	Agreeableness	35	
IV	Conscientiousness	22	
V	Intellect/Imagination	40	

Big five personality trait scores calculated by [openpsychometrics.org](https://openpsychometrics.org)

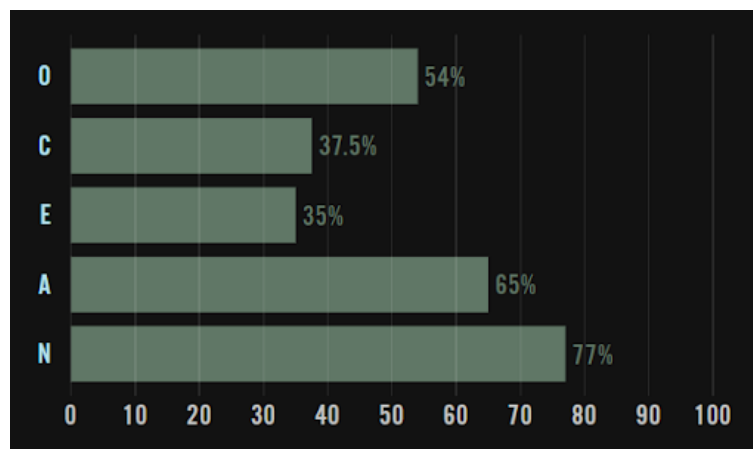
### Test analysis:

Two of the major characteristics of this team member to keep in mind is the ambitiousness and at the same time how 'unfocused' they may be. As this will all be leading to implementing a project idea, it is vital to not come up with an idea that will be overly ambitious for our skill set, and also not get ambitious with the features in each stage of development. Being unfocused also means that they may forget or lack the motivation to keep up a consistent work ethic in a heavily team-based effort (meaning they may need an occasional reminder/push to keep at it). This would also not be a very good pairing with being overly ambitious. This member also scored highly on intellect/imagination which is the exact sort of trait you need in a field of problem solving, which will be a valuable asset.

Nate Winter – s3948929

Nate is a born and raised Australian in a family of 5, with an ancestral history stemming from multiple western European cultures. With a diverse family history, Nate enjoys learning different languages, studying Japanese throughout all of high school and is keen to start learning German. He has been a fan of video games since he was only 5 years old, playing them to this very day. His interest in IT started at the same time as his interest in video games, finding that he enjoyed tinkering with computers, modifying video games and helping his family with any technical issues that they may have. In high school Nate enjoyed taking software development subjects which he could foresee doing as a career, and wishes to learn about popular languages like C#, C++ and Swift. He also has a side interest in security and networking, spending time outside of school learning about these things.

### Personality test results – Myers-Briggs, Big Five, Learning Style



#### Your learning preference: Multimodal (VARK)

[Share](#)

#### People with your preference like:

different formats, graphs, diagrams, maps, interesting layouts, space, listening, discussing, talking, questioning, notes, handouts, print, text, practical exercises, experiences, examples, case studies, trial and error, things that are *real*, ...

#### Your scores were:

- Visual 7
- Aural 7
- Read/Write 9
- Kinesthetic 10

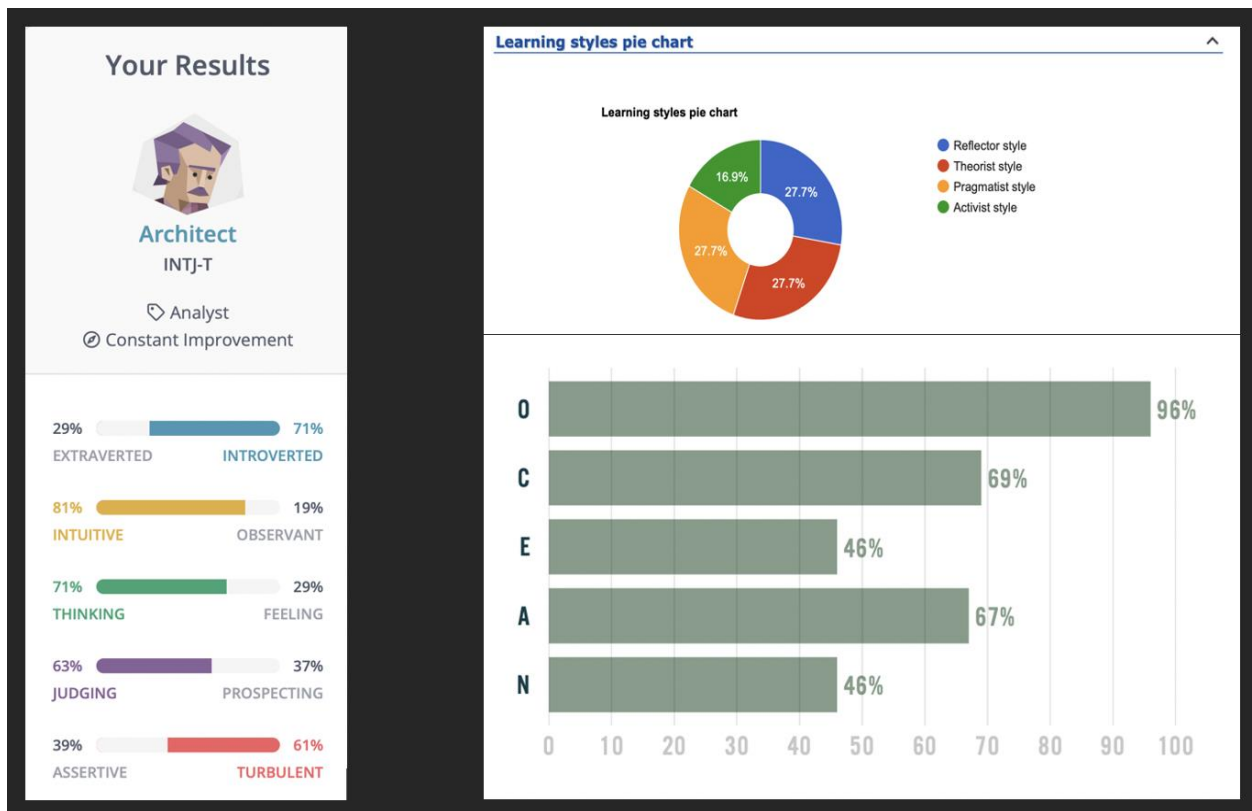
### Test analysis:

From these results, Nate can be interpreted as a shy and introverted person, but still very empathetic, understanding and a team player. This member will be able to understand other members and if they're struggling, not become frustrated if they are falling behind if not offer to help. It also shows that they can be quite self-critical and pessimistic which is both good and bad. The good is that it means that their work will that of a high standard and will be able to come up with constructive criticism, but may become overwhelmed with critical thoughts and wish to give up which will be important for other team members to keep in mind. They may also need help with poor self-discipline, needing that occasional push himself.

Sean Shlemoon – s3660535

Sean was born and raised in Detroit, Michigan over in the United States with an Assyrian background which is an ethnic/cultural group originating from the Syria/Iraq/Turkey area of the Middle East. Sean enjoys programming (testing out different languages and their best applications), learning about the history of different cultures, playing video games and creating a potential business plan for the future. Sean's interest in IT has been there since he was 10 years old, being deemed the family "technician" always learning new IT concepts and experimenting (which serves as his prior IT experience). His main IT interests revolve around software engineering and cybersecurity due to how much of the current world relies on these areas of specialty.

### Personality test results: Myers-Briggs, Learning Styles, Big Five



### ***Test analysis:***

The most notable result from these tests is the conscientiousness aspect. This means that someone is very diligent, thorough and generally a hard worker. There is a very good chance this means that other team members will always be able to rely on them to do a great job. Openness was another important aspect which may very much mean that they'll always be open to what they are thinking about the task at hand which is a vital thing to have as working in a team means being open to discussion and criticism. These characteristics would make a great candidate for a team leader, and someone you will be able to rely on.

Kowsar Rahman - s3825159

Kowsar is a passionate student originally from Bangladesh who began studying at RMIT in 2019 and is now in his third year of the Bachelor of Computer Science. He discovered his love for IT when he was in year 8, taking a keen interest in web development using languages such as PHP hoping to publish a finished app. This has evolved to additionally knowing Java, JavaScript and Python.

### ***Personality test results: Myers-Briggs, Big Five***

<b>Trait</b>	<b>Score</b>
Openness	85
Conscientiousness	63
Extraversion	67
Agreeableness	67
Neuroticism	60



## ***Test analysis***

Kowsar is the most unique out of this team, getting the Architect (INTJ). This implies that he has a more intuitive, thinking/analytical and critical ways of thinking. These things could be a massive benefit to the team such as the analytical and intuition aspects, especially when it comes to the implementing the project. Creating an IT related project (such as an app) requires an extended amount of careful planning, thinking of how the implementation plan should be structured, how they would go about doing it and developing it. These sorts of skills require a very logical way of thinking, with the critical and pessimistic aspects helping to keeps things to a feasible/realistic scale, discovering any flaws in the plan to as what wouldn't really work out, and are generally great ways of thinking when it comes to creating an IT related idea (such as with programming). Kowsar would be a valuable asset when it comes to development.

## Group Processes

In assignment 2 our group faced some difficulties, some which were out of our control (personal issues, people leaving, etc) however some of our issues were ones that we could improve on. Our biggest issue was communication. As a group we would either have dishonest communication or little to no communication at all which made it hard to catch up with everyone and check where everyone was at. Moving forward in our group we will need to focus on clear consistent communication so that our progress is clear and defined but also so we can see where every group member is at with their work.

## Ideal Jobs

### Chris Turner – Penetration Tester

The ideal job for Chris is that of a “penetration tester” or otherwise known as an “ethical hacker”. The role of a penetration hacker tester is to perform authorized security tests on computer systems/networks in order to find any security vulnerabilities which may lead to sensitive data getting leaked or finances best stolen. Trait Score Openness 85 Conscientiousness 63 Extraversion 67 Agreeableness 67 Neuroticism 60 10 Chris plans on obtaining these skills by continuing to pick relevant courses in higher education, picking up relevant internships when possible, self-study via a combination of textbooks and online courses and attempting to complete previous exams/papers sourced from not only RMIT but other universities out there when they feel confident enough.

### Connor O'Loughlin - Systems Analyst/Software Developer

Connors ideal job is to be a systems analyst. The purpose of a systems analyst is to analyze computers and systems in use of the client, determining the best software and hardware to use for the client's needs. This also includes maintenance so everything is up to date, working as expected and looking for anything that could be improved upon to improve the efficiency of the client. Many system analysts are also programmers, creating any specialized piece of software that they may need. His plan for achieving a role like this is by learning intermediate python skills, improving design and presentation skills, and user orientated development via university courses. For the mathematics aspects (statistical modelling) he may need to study outside of university for this using whatever resources that can be found on the internet. The remainder of the needed skills planned to be picked up naturally as he progresses through university.



## Kowsar Rahman – Full Stack Developer

Kowsar wishes to become a full stack developer in the future. A full stack dev is simply someone who develops both the back-end side of software (the technical side of things the end user doesn't see, such as the code or the database) and the front end (most often the stuff the user does see, like the UI/UX with HTML and CSS). It's what a lot of people think of when they hear "programmer". Kowsar is already in his final year of university completing many courses and projects both part of university and on the side for fun, meaning he already has many of the skills needed for such a role. His skills could be further refined by further developing more complex projects on the side, attending "code-a-thon" type events and taking on advanced programming and interview challenges (with websites such as Coderbyte or Leetcode).

## Nate Winter – Senior Game Development Tools Developer

Due to Nates passion for video games, he would seek out to become a software developer in the video game industry, developing third party tools that game developers over the world use. An example of these tools could be an audio editing piece of software that lets audio engineers and programmers build and implement complex audio systems in a variety of game engines (eg: FMOD). He would also pick relevant courses and electives in object orientated programming, looking for an opportunity to learn the Unity engine via online documentation and videos, and to look for a more entry level game development job upon graduating.

## Sean Shlemoon – Software Engineer

Seans ideal job would be something akin to a software engineer at a Silicon Valley type company (such as Google). This is developing their websites or applications that are used by millions of people around the world on a daily basis, with Google also utilizing and coming up with some of the most innovative technology out there. Sean has stated that he plans to gain the skills needed by continuing to study at university, self-studying a wide variety of programming languages via online courses or "bootcamps" (at the moment, Java and JavaScript) and hours of hard work.

## Career Plans:

None of our team's career plans or ideal jobs have changed since our completion of Assignment 2 and the feedback we got from it. Looking at our career plans more in depth we can see that many of our ideal jobs are similar but still different. The only two ideal jobs that are vastly different from the rest are Chris and Nate's being senior game development tools developer and penetration tester respectively. For Nate, his strong interest in video games is apparent from his ideal job choice which also reflects his interest in getting into the game development scene. Chris on the other hand has a stronger interest in networks and cybersecurity and rather than developing security systems, he would like to study them and learn how to exploit them for the purpose of securing them and making them better. Because Chris and Nate's ideal jobs and pathways are very different from the rest of the group it is difficult to contrast or compare them to the others. The only thing that can be observed is that Nate will most likely take some of the same paths as Kowsar and Connor as he improves his knowledge of programming but will eventually divert to game development. Chris on the other hand will take similar paths as Kowsar and Sean but instead focusing more of security and networks rather than user design.

This leaves us with Sean, Kowsar and Connor whose ideal jobs are software engineer, full stack developer and systems analyst/software developer. Kowsar's ideal job is a full stack developer which entails that his pathway will need to make sure he learns user design, HTML and CSS to a high standard without neglecting the back end of development such as programming and databases. Sean will also need to learn a variety of skills such as user design, HTML, CSS, JavaScript and more to ensure he can achieve his ideal job as a software engineer at Silicon Valley. However, because Sean doesn't

intend to be a full stack developer, he could choose to focus his efforts in specific areas and specialize in them. Connor on the other hand will need to focus on user design and programming skills as well as other skills he may need to pick up outside of this course regarding mathematical analysis. From this we can see that all three of these members will need to improve their skills in programming and web development (to different degrees) however each have their own differences. For Kowsar he needs to learn every aspect of development (front end and back end), Connor may need to divulge in other studies to improve analysis skills and Sean has a choice of either specializing in something he specifically enjoys or is good at or could take a similar path as Kowsar in becoming a full stack developer.

## Tools

For this project, we again set up a website including all the information in the report that each member has the ability to contribute/push changes to. The repository also includes all the files for our artifacts towards the project implementation.

The best way to gauge each team members progress/contribution is to look at the version history of the docx file on SharePoint combined, looking at who has pushed changes to the git and eventually the contribution sheet that will be filled out upon completion of this project. Some members pushed to the git while others stuck to uploading things to Microsoft Teams and then having someone else to push it (as we believe this would have been the most simple/streamlined course of action) or just editing the report document on Microsoft Teams. The git trail is not the best way to represent each individual member's contribution.

GitHub Pages Website: [https://sevgi-z.github.io/Assignment3\\_Project/](https://sevgi-z.github.io/Assignment3_Project/)

GitHub Repository: [https://github.com/Sevgi-Z/Assignment3\\_Project](https://github.com/Sevgi-Z/Assignment3_Project)

Figma Prototype:

<https://www.figma.com/file/iyvkrE6lOdj2S3Qtm6Y1v0/Beach-app?node-id=0%3A1>

## Group Processes and Communications

We once again opted to use Microsoft Teams to facilitate communications and meetings every Wednesday and two-hour face-to-face meetings every Friday. We believe two meetings a week will be sufficient as a minimum, with the Friday one normally being longer and correcting any issues or problems that were brought up on the Wednesday. If anything immediately urgent comes up, we will be able to schedule a sudden meeting or talk about it through the announcements on MS Teams via text. We also decided to end up using Discord as a back and in cases where we need communication and responses ASAP.

If the worst-case scenario were to happen and we lose contact with a team member, then we will have to exhaust all possible avenues of contact including MS Teams, Email, and Canvas if possible.

## Group Meetings: Assignment 2:

27/04/2022:

[https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED\\_20220427\\_070922.mp4?csf=1&web=1&e=CIUj0R](https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED_20220427_070922.mp4?csf=1&web=1&e=CIUj0R)

30/04/2022:

[https://rmitteduau-my.sharepoint.com/:v:/r/personal/s3931227\\_student\\_rmit\\_edu\\_au/Documents/Recordings/Saturday%20Catch%20Up%20Meeting\\_20220430\\_071020.mp4?csf=1&web=1&e=6Nu5cY](https://rmitteduau-my.sharepoint.com/:v:/r/personal/s3931227_student_rmit_edu_au/Documents/Recordings/Saturday%20Catch%20Up%20Meeting_20220430_071020.mp4?csf=1&web=1&e=6Nu5cY)

## Assignment 3:

04/05/2022:

[https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED\\_20220504\\_070311.mp4?csf=1&web=1&e=QweVzu](https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED_20220504_070311.mp4?csf=1&web=1&e=QweVzu)

11/05/2022:

[https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Meeting%20in%20\\_General\\_-20220511\\_170330-Meeting%20Recording.mp4?csf=1&web=1&e=yeV0Jw](https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Meeting%20in%20_General_-20220511_170330-Meeting%20Recording.mp4?csf=1&web=1&e=yeV0Jw)

18/05/2022:

[https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/General-20220518\\_170810-Meeting%20Recording.mp4?csf=1&web=1&e=cZRAFD](https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/General-20220518_170810-Meeting%20Recording.mp4?csf=1&web=1&e=cZRAFD)

25/05/2022:

[https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED-20220525\\_171427-Meeting%20Recording.mp4?csf=1&web=1&e=guunv0](https://rmitteduau.sharepoint.com/:v:/r/sites/FRIAssignment2Group3/Shared%20Documents/General/Recordings/Wednesday%20Meetings%20FIXED-FIXED-20220525_171427-Meeting%20Recording.mp4?csf=1&web=1&e=guunv0)

## Project:

### Overview

For our team project we are attempting to make a beach app that allows users to find the beach that is right for them. This app will have various features such as filtering and search options based on location, popularity.

### Motivation:

Australia has many, many beaches, but how do you know which ones are good and which ones are bad? This is our primary motivation when it comes to the building and creating of our beach app. Our goal is to create an app that allows all Australians and Tourists alike to find the perfect beaches to them. This takes the form of allowing users to find the beaches most suited to them. With this beach app we aim to give everyone the best experience possible which is why we include an option to search for a beach based on the characteristics that they want in their summer experience. Do they want a quieter and more comfortable beach, maybe they want a more popular beach in order to meet people. We want to empower our users with the choice of what they think will suit them best.

An additional motivation of our team is to encourage people to get out and start populating beaches again. This is to encourage the growth of Australia's various beaches that may be less popular than they were pre Covid. Many people may have no idea what beaches to go to post covid and which ones to avoid, this app may assist these kinds of people with up-to-date information that can assist them in finding what beaches are best in this post covid era.

### Landscape:

In terms of similar products, the range of competitors is vastly limited. However, there is one competitor that has been found is the "BeachSafe" app, this app tracks similar information like attendance and statistics relating to the beach and weather itself. Where our applications differ however is regarding the uses of each app ours differs slightly with the BeachSafe app showing the closest beach that is safe and patrolled whereas our app is more focused on giving a more holistic view of the various beaches in Australia.

### Aims

For our project our aim is to build a functional prototype of our app in android studio. To do this we will also need to make UI wireframes in figma, database model, XAMPP server and database implementation, use case diagrams and a process flowchart. The UI wireframe will allow us to create artifacts of our application in case we don't end up completing the full app and it also will help picture and design how the UI will be in the app. Both process flowchart and use case diagrams will give us additional artifacts and will also specify how the code and database will be designed.

### Plans and Progress

For our project, we decided to go with a beach application that is all about finding the ideal beach site that suits the user's needs and whether they would recommend it to other beach goers. It will be able to locate a certain type of beach that is based on a particular set of search criteria provided by the user and will give a list of the most suitable beaches within a given location proximate to the user. The app will also be able to give the user the ability to leave reviews of the different beach sites that they visit and in addition take and upload photos of the beach for other users to check when searching for their own ideal beach. The search criteria are a crucial part of the application, as it is the main function of the application in producing the specific beach the user had in mind. At this stage, we are at the beginning of development for the application. We will be utilizing Android Studio as the framework for the app and it will be written in Java. As part of our prototype development, we have decided to go ahead and utilize Figma as the UI presentation of

what we envision the layout will look like. Using Figma helps us out tremendously in seeing what the end product would look like for the app UI and allows us to make any changes we see fit necessary. As for the usability and functionality of the app, we are currently going through the developmental process and will be providing updates as we advance. For each group member, we had assigned certain tasks to one another for completion. Chris had the tools and project (roles, time planning/deadlines, communications) sections of the report, mentioning the several types of applications we were using for the development of the app and the overall structure of the project report. Connor was responsible for the tools and technology section as well as the overview part of the report, in addition he was also the creator for our prototype using Figma. I was responsible for the risks, scopes and limits, testing, plans and progress sections of the description for our report. Nate had the aims section for the project description and the team profile. Kowsar was assigned the skills and jobs portion of the report as well as the contributing collaborator on GitHub for the development of the beach application. Prior to deciding to go with a beach app, as a team we initially considered creating a video game. We had assigned certain tasks to each other and really started to provide ideas for the game such as artwork for the backgrounds, a scoring system, save system, as well as a database to store the information required. We were planning to use Android Studio and wanted to create it as a 2D platformer video game but as the days went by, we immediately realized that we were unable to continue with the idea as it would have been time consuming and additionally, we had little experience with Java.

## Roles

For this project, we aimed to have the roles akin to:

**Chris Turner** – Project management, database designer

**Connor O'Loughlin** - User Interface Designer

**Nate Winter** – User Interface programmer

**Sean Shlemoon** – Use Case + Tester

**Kowsar Rahman** – Lead software developer

The justification for these tried to play to people's strengths. For example, Chris has been the team leader and organized much of the logistics to this point with good success, Kowsar has extensive experience developing software and Connor has a more artistic/creative leaning side which would be good for user interfaces. The roles of Nate and Sean weren't assigned necessarily with any strengths or their ideal jobs in mind as we couldn't find any suitable tasks.

Although these roles didn't end up being set in stone. This could be attributed to life obligations getting in the way, poor project management, not keeping up with deadlines and not having a very clear vision to as how we were going to go about developing the project.

## Scope and Limits

As with any project we come across, our actions will determine what will be completed and what will be left out from development. The amount of arduous work and dedication we put into creating this application will be the same amount in culmination that we will receive from it. Of course, the only thing preventing us from finishing every feature we wish to include is the time we have available. Our app, as simplistic and trivial as it may be, has the possibility to

possess many distinctive functions and features that will enhance the beach going experience for the user. The problem comes from false promises we make to ourselves and to others on delivering those said features and overcommitting to its capabilities. In order to avoid as much of this as possible, we have set certain limits to the development of the app and ensure our priorities are not out of hand. One of those limits that we have in mind is the user's ability to save their favorite beach spots as well as giving the user the search criteria selection. We will not be able to have an overall search of different beach sites across all of Australia, but we will show the map spots of highly rated beaches listed on Google. Using Google Maps API, we can also display the map integrated with our UI and have a navigation bar at the bottom that will allow the storage of ideal beach sites. The app itself would be a skeletal prototype with considerably basic functionality, since at this stage a fully-fledged out beach application would be time consuming in including the distinct functions Google offers with its API.

## Tools and Technologies

The tools and technologies needed for this project include Java (the programming language), Google maps platform, Android studio and Figma. In this group both Christopher and Kowsar have experience with Java as a programming language and as Java is an open-source programming language no license is needed for the use of this technology in our project. In terms of Figma, all members of our group should have at least an idea of what it is with variable ranges of experience due to it being used for our UCD course, this may exclude Kowsar as he is from a computer science degree and may not have taken the class. Conceptually, Google maps platform may be needed in this project and does require payment to use certain features, nobody in our group has prior existing experience in the usage of this platform and it is unknown whether it is truly required for this project. Finally android studio is another technology that is required for our project. In this group Kowsar has demonstrated that they already have some pre-existing knowledge of how to use this technology. In terms of licenses required for the use of this technology, no license is needed apart from a one-time \$25 registration fee that is required to upload an app to the Google Play Store, however, as we are only creating a prototype of said app there is no need for such a license to be paid.

## Testing

When it comes to how exactly we will be testing our project, one of the most basic ways is while we are writing the code for the application. During programming, we will be running debug sessions if we come across a coding issue that does not seem to have a solution initially. As a group, and especially those with some coding background familiar with the language being used, we will come together and go through each line of code until we figure out what is causing the whole project to stop working. As we progress further in development, we will produce a trivial prototype that will still have the basic functionality of the final product but will not be as clean and practical as we intend. The purpose of this prototype would be to see how the app works in a real-world situation with genuine users interacting with it. The users that will test the app will be a combination of people we know and are familiar with, random strangers that are willing to give a quick play through, those who are avid beach travelers, and those who simply like the user interface and would want it to be implemented onto other industries. This will provide us with realistic data that can be utilized in finding out what is being perceived positively and what can be flushed out of the system if the reception is poor. The testing protocol will be implemented throughout the course of the development of the application, mostly because it will keep us sharp and honest about the functionality of the app and allows us to find any issues that may exist at a much earlier stage rather than before we launch the product.

## Timeframe/Deadlines:

	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>W4</b>	<b>W5</b>
Chris Turner	Finish pre-development documentation	Database Model	Database creation via XAMPP/phpMyAdmin	Database implementation in the app itself	Bug fixing
Connor O'Loughlin	Finish pre-development documentation	UI (User Interface) Wireframes (probably going to be done after prototype)	UI prototype via Figma (or a similar website) (Done before wireframe)	Bug test	Bug fixing
Nate Winter	Finish pre-development documentation	Create rough mockup in android studio of UI going by the wireframes	Implement UI to fit closer with the Figma prototype	Bug test	Bug fixing
Sean Shlemoon	Finish pre-development documentation	Use case diagrams	Software testing	Bug test	Bug fixing
Kowsar Rahman	Finish pre-development documentation	Begin functionality development on app via Android Studio, laying out the framework	Continue development, changing anything to fit with completed tasks. Implement database functionality if ready.	Bug test	Bug fixing

We assigned these tasks based on our strengths and weaknesses as touched upon in the “Roles” section, but also taking into account that all but one has no experience whatsoever planning software projects or to as how the development life cycle works. We also had to consider that we didn’t have the chance to start on this project earlier, giving us a late start. We were not sure to put on future weeks after the submission deadline as again, nearly all of us have zero experience in software development, what to expect or how to break the tasks down. Development on the software side of things advanced faster than expected seeing as how we handed that off to the person with actual experience.

## Risks

There are a few risks that we may come across when developing this beach application. One example could be the focus we have had on creating this app with the intention of it being only available for smartphones and having a mobile UI. Since the app is centered around the environment of a beach, most if not all beach goers are bringing their phones with them. This justifies the focus for a mobile app, but it can be a dangerous approach if we decide to not also include a webpage that is similar in presenting the information akin to a travel agency website. Another risk worth mentioning is in regard to the actual development of the application. We have run into several issues of understanding the different programming languages that we have at our disposal and whether they have the capability to execute the various features we wish to have as part of the app. Ensuring that we fully understand the language we use to create the app is crucial and a fundamental part of the developmental process. We could mention plenty of other risks that can potentially cause mayhem, but one important subject to cover is the risk of a serious security violation. Any type of breach in security that can cause harm to the user and expose their personal information and data is something we must take into consideration, and one solution that we decided to go with is the anonymous factor of leaving behind reviews. This allows the user to not have any association to their experience at any beach that they visit, thus preventing any sensitive information being leaked.

## Skills and Jobs

4 positions needed that are required to take the project to the next level are:

**Business Analyst:** The person responsible for analyzing the market and producing reports on the business data. Must know how to use tools like Excel, Power BI, etc. Must have a basic understanding of the market and willingness to do research to gather insights.

**Frontend Developer:** Responsible for creating designs with the most appropriate pattern that increases the usability of our applications. Must be proficient in any framework like React, Angular, Vue, etc.

**Backend Developer:** Maintaining databases, securing APIs, and deploying our infrastructure to the AWS/GCP cloud premises. Must be proficient in any popular languages like Java, Python, or JavaScript. Should be familiar with REST APIs. It is recommended to have skills in either AWS or GCP as our infrastructure will be based on the cloud entirely.

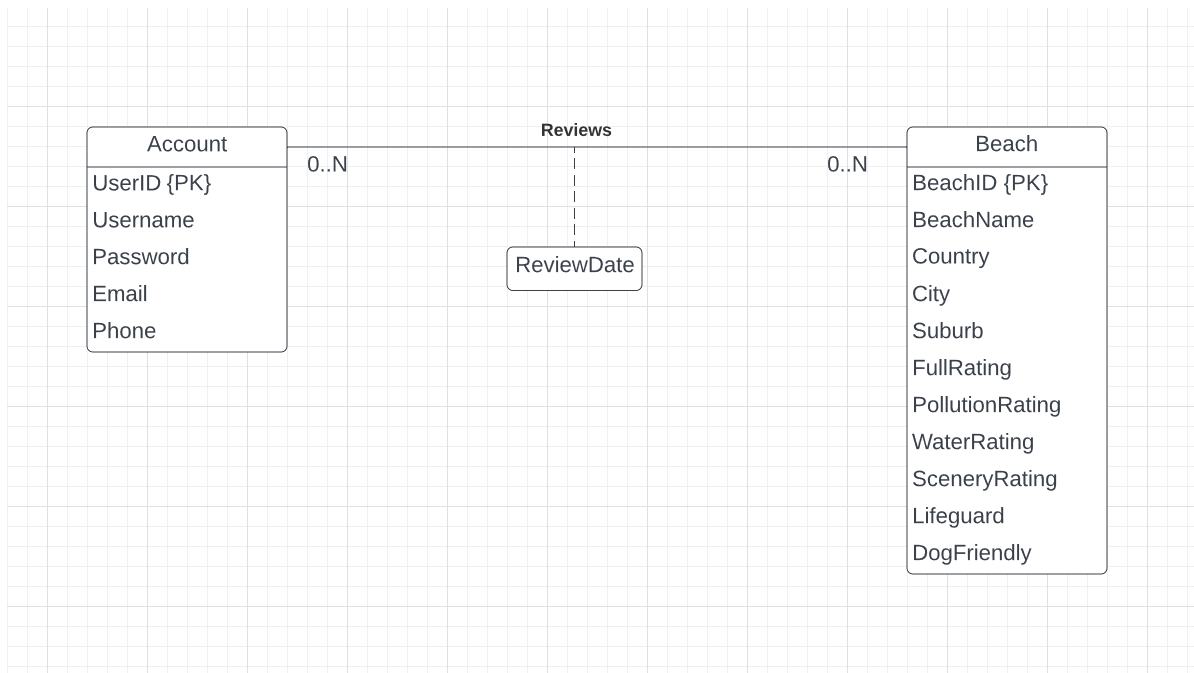
**DevOps Developer:** Must have skills in CI/CD tools like CircleCI, Docker, Kubernetes, Jenkins, etc. DevOps teams are responsible for building, testing, and maintaining a CI/CD pipeline and the overall reliability of IT infrastructure.



## Artifacts

All artifacts will also be available on the GitHub.

Artifacts of Chris:



	user_id	username	email	phone
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	My Username	123MyEmail@FakeEmailService.com	123456789

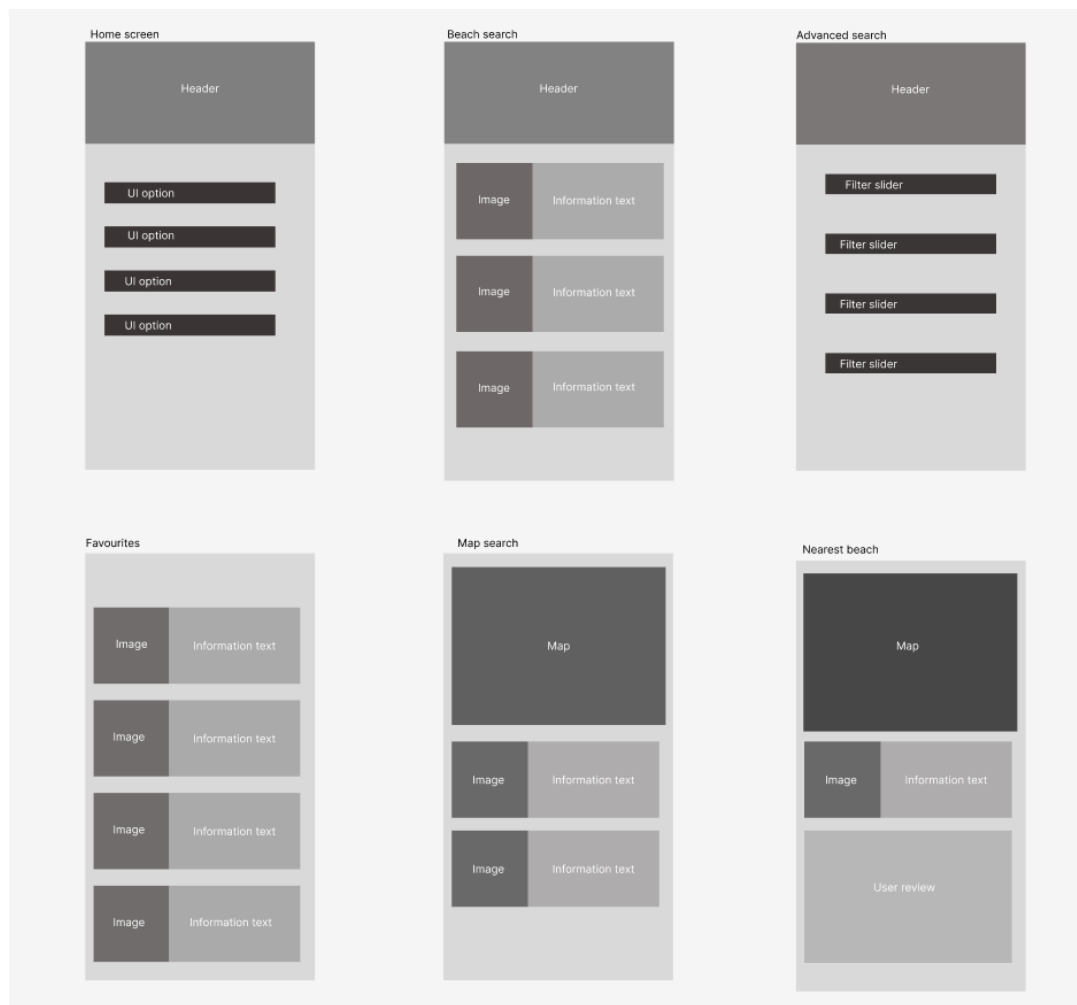
	user_id	beach_id	review_date
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	1	0000-00-00 00:00:00

	beach_id	beach_name	country	city	suburb	pollution_rating	water_rating	scenery_rating	lifeguard	dog_friendly	written_review	full_rating
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	The Beach Name	Australia	Melbourne	St. Kilda	1	2	3	YES	NO	This was a terrible beach!!!	1

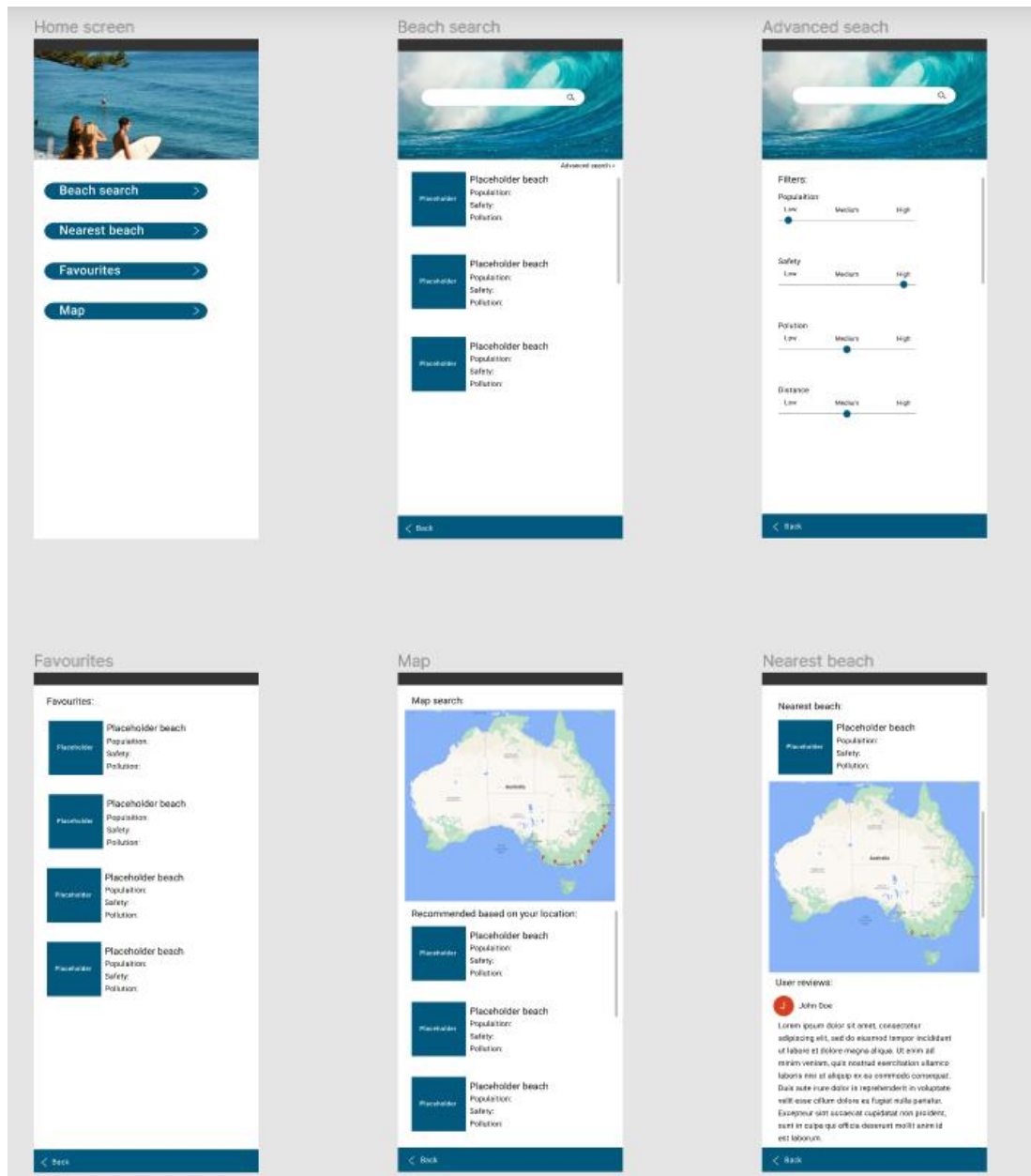
See “Database Schema and Commands.docx” for full artifact.

Artifacts of Connor:

## Wireframes:



Figma:

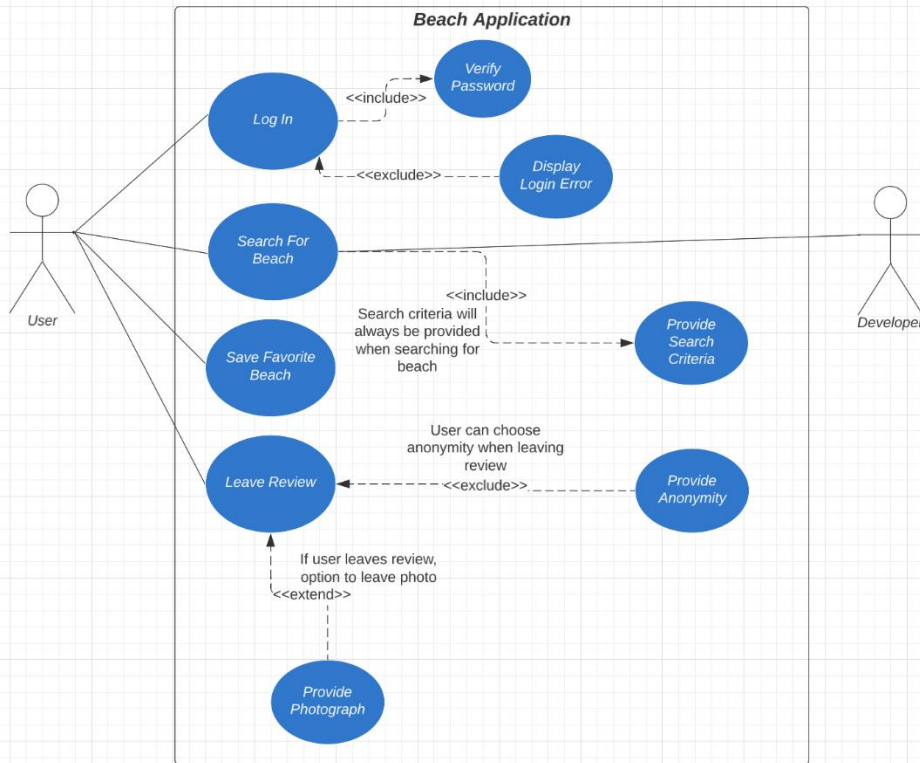


<https://www.figma.com/file/iyvkrE6lOdj2S3Qtm6Y1v0/Beach-app?node-id=0%3A1>

Artifacts of Sean Shlemoon:

### Assignment 3

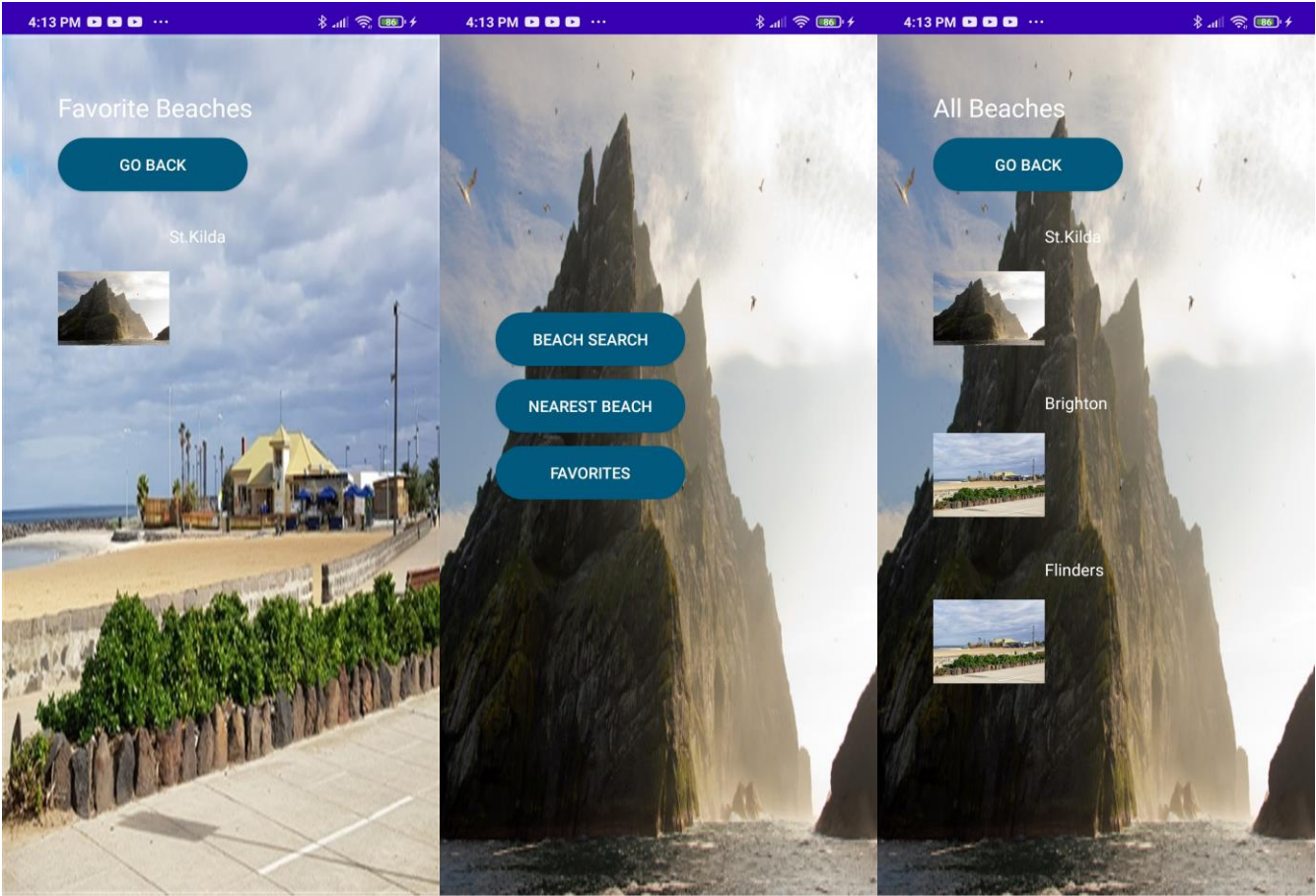
Sean Shlemmon

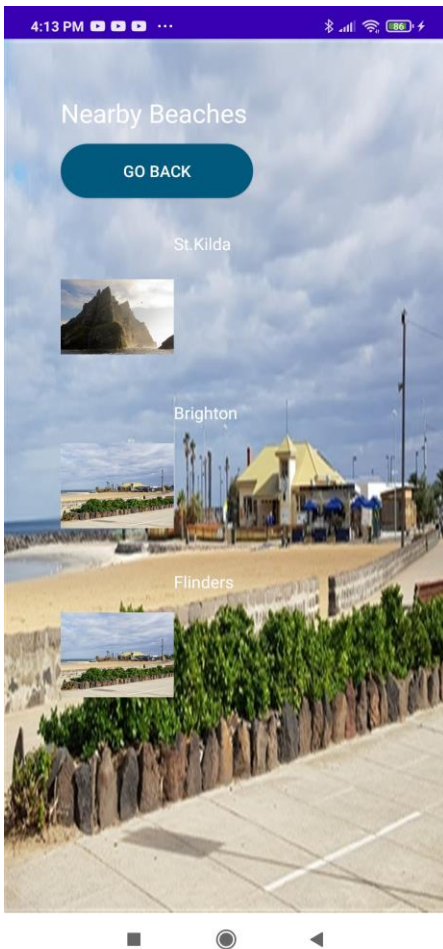


Artifacts of Kowsar:

Apk file of the app: [https://github.com/Sevgi-Z/Assignment3\\_Project/blob/main/app-debug.apk](https://github.com/Sevgi-Z/Assignment3_Project/blob/main/app-debug.apk)

It may show some security reasons if trying to install as the app is not published on play store nor it is protected by Play Protect.





```

App: app | src | main | java | com | example |.myapplication | BeachSearch
└─ app
   └─ src
      └─ main
         └─ java
            └─ com.example.myapplication
               └─ BeachSearch
                  └─ CustomBaseAdapter
                     └─ CustomListView
                        └─ MainActivity
                           └─ Favorite
                              └─ NearestBeach
                                 └─ res
                                    └─ AndroidManifest.xml
                                       └─ build.gradle
                                          └─ google-services.json
                                             └─ proguard-rules.pro
                                                └─ Gradle Scripts

BeachSearch.java | CustomBaseAdapter.java | MainActivity.java
Gradle project sync failed. Basic functionality (e.g. editing, debugging) will not work properly. Try Again | Open 'Build' View | Show Log in Explorer
1 package com.example.myapplication;
2
3
4
5
6
7
8
9
10
11 public class BeachSearch extends AppCompatActivity {
12
13
14
15 private Button go_back;
16 String beach_list[] = {"St.Kilda", "Brighton", "Flinders"};
17 int beach_images[] = {R.drawable.kilda, R.drawable.williamstownbeach, R.drawable.williamstownbeach};
18 String population[] = {"Low Population", "High Population", "Medium Population"};
19 String pollution[] = {"Low Pollution", "High Pollution", "Medium Pollution"};
20 String safety[] = {"Low Safety", "High Safety", "Medium Safety"};
21 ListView listView;
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
1020
1021
1022
1023
1024
1025
1026
1027
1028
1029
1030
1031
1032
1033
1034
1035
1036
1037
1038
1039
1040
1041
1042
1043
1044
1045
1046
1047
1048
1049
1050
1051
1052
1053
1054
1055
1056
1057
1058
1059
1060
1061
1062
1063
1064
1065
1066
1067
1068
1069
1070
1071
1072
1073
1074
1075
1076
1077
1078
1079
1080
1081
1082
1083
1084
1085
1086
1087
1088
1089
1090
1091
1092
1093
1094
1095
1096
1097
1098
1099
1100
1101
1102
1103
1104
1105
1106
1107
1108
1109
1110
1111
1112
1113
1114
1115
1116
1117
1118
1119
1120
1121
1122
1123
1124
1125
1126
1127
1128
1129
1130
1131
1132
1133
1134
1135
1136
1137
1138
1139
1140
1141
1142
1143
1144
1145
1146
1147
1148
1149
1150
1151
1152
1153
1154
1155
1156
1157
1158
1159
1160
1161
1162
1163
1164
1165
1166
1167
1168
1169
1170
1171
1172
1173
1174
1175
1176
1177
1178
1179
1180
1181
1182
1183
1184
1185
1186
1187
1188
1189
1190
1191
1192
1193
1194
1195
1196
1197
1198
1199
1200
1201
1202
1203
1204
1205
1206
1207
1208
1209
1210
1211
1212
1213
1214
1215
1216
1217
1218
1219
1220
1221
1222
1223
1224
1225
1226
1227
1228
1229
1230
1231
1232
1233
1234
1235
1236
1237
1238
1239
1240
1241
1242
1243
1244
1245
1246
1247
1248
1249
1250
1251
1252
1253
1254
1255
1256
1257
1258
1259
1260
1261
1262
1263
1264
1265
1266
1267
1268
1269
1270
1271
1272
1273
1274
1275
1276
1277
1278
1279
1280
1281
1282
1283
1284
1285
1286
1287
1288
1289
1290
1291
1292
1293
1294
1295
1296
1297
1298
1299
1300
1301
1302
1303
1304
1305
1306
1307
1308
1309
1310
1311
1312
1313
1314
1315
1316
1317
1318
1319
1320
1321
1322
1323
1324
1325
1326
1327
1328
1329
1330
1331
1332
1333
1334
1335
1336
1337
1338
1339
1340
1341
1342
1343
1344
1345
1346
1347
1348
1349
1350
1351
1352
1353
1354
1355
1356
1357
1358
1359
1360
1361
1362
1363
1364
1365
1366
1367
1368
1369
1370
1371
1372
1373
1374
1375
1376
1377
1378
1379
1380
1381
1382
1383
1384
1385
1386
1387
1388
1389
1390
1391
1392
1393
1394
1395
1396
1397
1398
1399
1400
1401
1402
1403
1404
1405
1406
1407
1408
1409
1410
1411
1412
1413
1414
1415
1416
1417
1418
1419
1420
1421
1422
1423
1424
1425
1426
1427
1428
1429
1430
1431
1432
1433
1434
1435
1436
1437
1438
1439
1440
1441
1442
1443
1444
1445
1446
1447
1448
1449
1450
1451
1452
1453
1454
1455
1456
1457
1458
1459
1460
1461
1462
1463
1464
1465
1466
1467
1468
1469
1470
1471
1472
1473
1474
1475
1476
1477
1478
1479
1480
1481
1482
1483
1484
1485
1486
1487
1488
1489
1490
1491
1492
1493
1494
1495
1496
1497
1498
1499
1500
1501
1502
1503
1504
1505
1506
1507
1508
1509
1510
1511
1512
1513
1514
1515
1516
1517
1518
1519
1520
1521
1522
1523
1524
1525
1526
1527
1528
1529
1530
1531
1532
1533
1534
1535
1536
1537
1538
1539
1540
1541
1542
1543
1544
1545
1546
1547
1548
1549
1550
1551
1552
1553
1554
1555
1556
1557
1558
1559
1560
1561
1562
1563
1564
1565
1566
1567
1568
1569
1570
1571
1572
1573
1574
1575
1576
1577
1578
1579
1580
1581
1582
1583
1584
1585
1586
1587
1588
1589
1590
1591
1592
1593
1594
1595
1596
1597
1598
1599
1600
1601
1602
1603
1604
1605
1606
1607
1608
1609
1610
1611
1612
1613
1614
1615
1616
1617
1618
1619
1620
1621
1622
1623
1624
1625
1626
1627
1628
1629
1630
1631
1632
1633
1634
1635
1636
1637
1638
1639
1640
1641
1642
1643
1644
1645
1646
1647
1648
1649
1650
1651
1652
1653
1654
1655
1656
1657
1658
1659
1660
1661
1662
1663
1664
1665
1666
1667
1668
1669
1670
1671
1672
1673
1674
1675
1676
1677
1678
1679
1680
1681
1682
1683
1684
1685
1686
1687
1688
1689
1690
1691
1692
1693
1694
1695
1696
1697
1698
1699
1700
1701
1702
1703
1704
1705
1706
1707
1708
1709
1710
1711
1712
1713
1714
1715
1716
1717
1718
1719
1720
1721
1722
1723
1724
1725
1726
1727
1728
1729
1730
1731
1732
1733
1734
1735
1736
1737
1738
1739
1740
1741
1742
1743
1744
1745
1746
1747
1748
1749
1750
1751
1752
1753
1754
1755
1756
1757
1758
1759
1760
1761
1762
1763
1764
1765
1766
1767
1768
1769
1770
1771
1772
1773
1774
1775
1776
1777
1778
1779
1780
1781
1782
1783
1784
1785
1786
1787
1788
1789
1790
1791
1792
1793
1794
1795
1796
1797
1798
1799
1800
1801
1802
1803
1804
1805
1806
1807
1808
1809
1810
1811
1812
1813
1814
1815
1816
1817
1818
1819
1820
1821
1822
1823
1824
1825
1826
1827
1828
1829
1830
1831
1832
1833
1834
1835
1836
1837
1838
1839
1840
1841
1842
1843
1844
1845
1846
1847
1848
1849
1850
1851
1852
1853
1854
1855
1856
1857
1858
1859
1860
1861
1862
1863
1864
1865
1866
1867
1868
1869
1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
2047
2048
2049
2050
2051
2052
2053
2054
2055
2056
2057
2058
2059
2060
2061
2062
2063
2064
2065
2066
2067
2068
2069
2070
2071
2072
2073
2074
2075
2076
2077
2078
2079
2080
2081
2082
2083
2084
2085
2086
2087
2088
2089
2090
2091
2092
2093
2094
2095
2096
2097
2098
2099
2100
2101
2102
2103
2104
2105
2106
2107
2108
2109
2110
2111
2112
2113
2114
2115
2116
2117
2118
2119
2120
2121
2122
2123
2124
2125
2126
2127
2128
2129
2130
2131
2132
2133
2134
2135
2136
2137
2138
2139
2140
2141
2142
2143
2144
2145
2146
2147
2148
2149
2150
2151
2152
2153
2154
2155
2156
2157
2158
2159
2160
2161
2162
2163
2164
2165
2166
2167
2168
2169
2170
2171
2172
2173
2174
2175
2176
2177
2178
2179
2180
2181
2182
2183
2184
2185
2186
2187
2188
2189
2190
2191
2192
2193
2194
2195
2196
2197
2198
2199
2200
2201
2202
2203
2204
2205
2206
2207
2208
2209
2210
2211
2212
2213
2214
2215
2216
2217
2218
2219
2220
2221
2222
2223
2224
2225
2226
2227
2228
2229
2230
2231
2232
2233
2234
2235
2236
2237
2238
2239
2240
2241
2242
2243
2244
2245
2246
2247
2248
2249
2250
2251
2252
2253
2254
2255
2256
2257
2258
2259
2260
2261
2262
2263
2264
2265
2266
2267
2268
2269
2270
2271
2272
2273
2274
2275
2276
2277
2278
2279
2280
2281
2282
2283
2284
2285
2286
2287
2288
2289
2290
2291
2292
2293
2294
2295
2296
2297
2298
2299
2300
2301
2302
2303
2304
2305
2306
2307
2308
2309
2310
2311
2312
2313
2314
2315
2316
2317
2318
2319
2320
2321
2322
2323
2324
2325
2326
2327
2328
2329
2330
2331
2332
2333
2334
2335
2336
2337
2338
2339
2340
2341
2342
2343
2344
2345
2346
2347
2348
2349
2350
2351
2352
2353
2354
2355
2356
2357
2358
2359
2360
2361
2362
2363
2364
2365
2366
2367
2368
2369
2370
2371
2372
2373
2374
2375
2376
2377
2378
2379
2380
2381
2382
2383
2384
2385
2386
2387
2388
2389
2390
2391
2392
2393
2394
2395
2396
2397
2398
2399
2400
2401
2402
2403
2404
2405
2406
2407
2408
2409
2410
2411
2412
2413
2414
2415
2416
2417
2418
2419
2420
2421
2422
2423
2424
2425
2426
2427
2428
2429
2430
2431
2432
2433
2434
2435
2436
2437
2438
2439
2440
2441
2442
2443
2444
2445
2446
2447
2448
2449
2450
2451
2452
2453
2454
2455
2456
2457
2458
2459
2460
2461
2462
2463
2464
2465
2466
2467
2468
2469
2470
2471
2472
2473
2474
2475
2476
2477
2478
2479
2480
2481
2482
2483
2484
2485
2486
2487
2488
2489
2490
2491
2492
2493
2494
2495
2496
2497
2498
2499
2500
2501
2502
2503
2504
2505
2506
2507
2508
2509
2510
2511
2512
2513
2514
2515
2516
2517
2518
2519
2520
2521
2522
2523
2524
2525
2526
2527
2528
2529
2530
2531
2532
2533
2534
2535
2536
2537
2538
2539
2540
2541
2542
2543
2544
2545
2546
2547
2548
2549
2550
2551
2552
2553
2554
2555
2556
2557
2558
2559
2560
2561
2562
2563
2564
2565
2566
2567
2568
2569
2570
2571
2572
2573
2574
2575
2576
2577
2578
2579
2580
2581
2582
2583
2584
2585
2586
2587
2588
2589
2590
2591
2592
2593
2594
2595
2596
2597
2598
2599
2600
2601
2602
2603
2604
2605
2606
2607

```

## Group Reflections:

Chris Turner:

### **What went well?**

The communication did improve quite a bit with us also starting a discord server as a fallback if we weren't able to get into contact with someone soon enough on MS Teams, and we surprisingly got quite a few artifacts done despite with life obligations and other classes/courses getting in the way.

### **What could be improved?**

Many of us still didn't complete our parts until the due week or even due weekend, me included this time. People could still sometimes take a bit too long to get back and keeping track of what people have completed remained the same as last time (doing it in their own thing, not giving regular updates, etc). A group member went MIA towards end and couldn't get in contact in time for them to finish their group reflection, for example. This makes for the second group member to go MIA.

### **At least one thing that was surprising?**

The most surprising thing was how much my lack of motivation and most likely others impacted the quality of our work, and just how suddenly and quickly that can happen. It is an under-looked factor when planning for worst case scenarios and I was not expecting it to happen at all, especially seeing as how I was completely motivated all throughout the last assignment. The assignment suffered a lot because of my loss of motivation, leading to less regular checkups/progress reports.

### **At least one thing you have learned about groups?**

How rapidly the work effort of the group can change, for better or worse. This then leads to a bit of chaos and otherwise unneeded stress as things are left very late and rushed and there is not much you can do about group members loss of motivation or life obligations getting in the way. The most you can really do is pray things will get done (unless you somehow manage to find the time to complete other people's work for them). Although at the same time it's important to consider everyone has their own stuff going on in life which may serve as a justification for the lack of work ethic, and to be patient with them.

### **Group Activity/Contribution:**

I contributed: database related artifacts, timeframe/deadlines, roles, tools (GitHub website), organizing communications and meetings.

Nate Winter:

**MIA, could not get in contact in time**



Connor O'Loughlin:

**What went well?**

I think that my experimentation with figma and eventual resulting prototype was something that went well and was fun to do working without much error or headaches

**What could be improved?**

The speed of completion could have been improved with some people not contributing or mentioning their contributions until even the very end of the due date where some people still did not include their work until the last second

**At least one thing that was surprising:**

I found it surprising how poor the rate of communication got especially after the drastic improvement of the last semester with some people not even showing up to the in-person classes. This heavily negatively impacted our ability to have our work completed properly and have reasonable stress levels.

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

I have learnt that you need to promote frequent communication throughout the entire project because if it falls off it is extremely difficult to get back on track.

Sean Shlemoon:

**What went well?**

I believe that our communication in general improved in between the past assignment and this one, as well as managing our time for work towards this project. I also believe that our understanding of what exactly our project idea was trying to achieve was at a better position and gave us insight in providing more detailed and quality work towards the report.

**What could be improved?**

As much as we did improve on communication, I still think it needs to be worked out much more. As we each have our own lives and responsibilities to attend to, it can be difficult at times to be able to talk to one another and see where we're at.

**At least one thing that was surprising:**

One thing that was surprising was the type of work I was doing for the project. It gave me a new perspective on group work and provided me with an understanding of what exactly I can expect and what I need to do in order to work more efficiently within a group. I also will be trying to see if I can implement what I've contributed towards the report into a real-world application.

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

One thing that I have learned about groups and group work is that at times it can be a bit frustrating. We can't force others to do work they don't want to, so it can add a level of difficulty to work with others and expect them to contribute. I still believe that it is a necessary thing people need to go through to understand others and provide a degree of experience to know what to do under group circumstances.

### **Group Activity/Contribution:**

I contributed sections of the description (Plans and Progress, Scopes and Limits, Testing, Risks) as well as the Use Case Diagram for our project idea.

Kowsar Rahman:

### **What went well?**

Communication improved a lot, and everyone got a fair chance of sharing their ideas. Team members got more determined to achieve high marks after a turbulent period originating from the previous assignment.

### **What could be improved?**

We could have met face-to-face for some meetings in that way the work could have been done more quickly and feedback could be provided. I totally understand for some of us this option might not be possible due to factors like work commitments, other subject priorities, etc. Hence, I do not strongly advocate for this practice.

### **At least one thing that was surprising:**

App development is exceedingly difficult. I faced a lot of difficulties in setting up the emulators to test. Initially, I tried with React Native, but this process turned out to be a disaster however it did show some progress. I didn't want to go further since I was running out of time. I then switched to Android App Development, and it was again not that hard. Overall, could build the **apk** and the app can run on any Android device.

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

It is everyone's responsibility to get the best out of the team. Also, no matter what task is allocated from the beginning, it is a recommended approach to have knowledge of other stuff as well.

## **Overall Group Reflection:**

Upon discussion as a group, we all agree with each other's individual reflections of the group.

### **What went well?**

Compared to the last assignment, we believe that communication was overall better for the duration of assignment 3. We went ahead and created a Discord as a backup means of communication as that serves as a much better way of instant communication and had meetings that were a bit lengthier than usual and despite any lack of motivation, we still ended up having quite a bit of determination left in order to get our report tasks and artifacts completed.

### **What could be improved?**

Even if communication did improve when compared with the last assignment, we still don't believe it to be enough of an improvement. Too often it felt like that we were too unaware of how other members were progressing with their assigned tasks and when we could estimate those tasks be completed. Meetings also begun to lack, with less people turning up to both the online meetings via MS Teams and the in person Friday meetings. This lack of communication is made even harder when a team member begins to drift off, eventually not knowing where they are or what they have been doing.

### **At least one thing that was surprising:**

We were surprised at our respective tasks. On one hand, we were surprised at how there can be unexpected difficulties for something that you at first go into feeling very confident, but then a spanner gets thrown into the works and suddenly you have to rethink how you approach the problem. This is an important thing to plan ahead/account for in future project work.

Another thing we found surprising was the large drop off in terms of communication and work ethic out of nowhere. Towards the end of the last assignment, it seemed like things rapidly improved and was going to stay that way for us to find out that somewhat the opposite happened as we begun the project. As expected, our quality of work suffered a lot because of this leading to a lot of rushed work.

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

We all learnt our own things about working in groups this assignment. Though if we had to choose one thing as the main takeaway here, it's that how quickly things can fall apart, and it can be very frustrating when you believe that you have put in sufficient effort meanwhile others are letting you down. It's also important to play to everyone's strengths and weaknesses as this allows things to get completed to a good standard and at an acceptable pace which may help avoid this sort of thing. It is hard to recover from things falling apart (such as a lack of communication).

