**PLANS AND PROGRESS**

* Here you should give as much detail as you can about what your project will do, and how you will do it.
* This should also include how far you have got with developing any features or outcomes from your project.
* Tell us about the “story" of your project – how it began, how it has progressed, and what stage of the plan you are up to.
* Include any dead-ends you may have followed, decisions made, and changes that have been made to the project plan.
* This will need to include a significant amount of detail, so that it is easily seen what precisely you have done and are planning to do.
* If it helps, imagine the information that would be required if you were to hand this project over at the end of the semester to a new team to complete the job.
* What would you want to know, if you were one of the people taking over?
* There is no set length for this section, but it is hard to believe that less than two pages could be adequate. Three or four pages is far more likely.

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From the Royal Melbourne Institute of Technology University, a group of five individuals, XVI, have come together to expand on an idea that was born during these unprecedented times we face through the COVID-19 pandemic, introducing The SocialCare Chat.

The SocialCare Chat will connect the elderly or those with a disability, to their loved ones and allow them to engage through the use of technology. All members from XVI have such fond memories with their grandparents, some members also have close family members with a form of disability. Experiencing firsthand the struggles our loved ones go through has given us the motivation to create an application specifically designed for them, so they too can be connected.

The COVID-19 pandemic has caused us to be disconnected and isolated. The only way to connect is through technology. The focus of this application is to make digital contact with family and friends uncomplicated for those that may struggle with technology, we will also incorporate brain teasers for those that enjoy games.

We are filled with passion and determination to develop our application. Although the depth of creating a web application was not initially realized, we have taken a step back to plan the development of the application first, designed for the elderly. As time progresses, we will look to expand on a mobile application and to develop a design for those with a disability too, initially focusing on a web application to ensure accessibility for everyone. It is important that we get this right and cater to our market accordingly.

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The SocialCare Chat project will require various technical skills to successfully create and launch. The team at XVI worked really hard over 6 weeks with the hope of having a beta product. XVI was unable to meet the demands of creating a web application due to the extensive work that is required, therefore they predict their beta product will be ready by September 2020.

The SocialCare Chat application is intended to be in the form of a web application that is intuitive and user-friendly for our beloved elderly initially. For our SocialCare Chat, we aim to have voice-operated commands, a navigational layout that is simple to understand, along with the use of buttons.

We intend to use clear and concise language that steers clear from jargon and any form of millennial language. Ideally, we hope to implement different language options as we work to cater our application to as many people as possible. Languages will be analyzed to determine the most common language in our Australian elderly population, as well as considering the depth of the language. Languages we will consider implementing in due course will be Italian, Greek, Arabic and Mandarin/Cantonese.

We wanted to understand the psychology of colours and utilize such colours that will resonate with the elderly generation and have a positive influence. The colour scheme we have chosen will be that of a simple setting with a blue and white theme; we have chosen blue as it calls to mind feelings of calmness and serenity.

The SocialCare Chat will consist of few features as we aim to solve a specific need, which is connecting the elderly with their loved ones; this will be through the use of text, phone and video chat.

As a starting point, the home page will have a login or sign up option, there are two options when signing up depending on your age. We have designed The SocialCare Chat specifically like this so the end-user experience will be catered to them specifically. For example, the design of the elderly interface will be clear and simplified. Whereas the alternate interface will have additional functionalities and a slightly different interface. This is to ensure every one of all ages can use the application and those that require additional support can get it.

The elderely interface

Connect with loved ones:

The text function will be a simple design for ease of use and will ideally have various language options so those who may not understand the English language as well as their own native language, can still connect with their loved ones with ease. Our beloved elderly will also be able to send and receive photos through the text interface (provided their phone supports it).

The device function will essentially be used exactly as a standard device keypad is designed, however, the difference is that they do not need to search for names and numbers, they can identify their loved one through a photo. The aim is to minimize any sort of confusion and overwhelming feelings they may encounter when attempting to go through the phone's address book. To make the call, they will need to locate their loved one by their photo (and name), simply select call and choose between voice call or video call.

The video interface will also be very simple, there will not be additional functionalities such as filters. Only the option to change what way the camera is looking.

The final feature of The SocialCare Chat is the games! It is important to keep the brain as active as possible and to exercise the muscle, so we aim to have a variety of the games that our elderly generation may find interesting enough to get involved. Initially, we will look to include games such as chess and checkers, and cards and continue to add games and brain teasers as time progresses.

All aspects of the application are important and have a pivotal role. We must design the web application to be user-friendly and intuitive. We will roll out the application directly to the web for ease of access.

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There are three main online application development tools: Amazon Web Services (AWS), Google App Engine and Microsoft Azure. We intend to create a web application that can also be accessed in a mobile format. After careful consideration at XVI, we have decided to go with Microsoft Azure in conjunction with Eclipse IDE as our development suite, storage warehouse and launching platform.

Microsoft Azure offers extensive testing and DevOps tools, expansive middleware, an enormous data staging ground that scales with usage, virtual machines to use as containers and simple compatibility with Eclipse for front-end support as well as an unimaginable amount of other functions.

We can use Java to code the back end and JavaFX for the front-end in Eclipse. Both offer a fantastic platform to work off and have shared functionality between the two. After the development of our application, we can perform containerized testing against massive, pre-structured data-pools created by Microsoft, also in Azure, that replicate devices in real-world situations. This ensures we can perform thorough testing without having to establish real-world scenarios, expanding the scope of our testing, and allowing us to ready ourselves for the market. These tests will then allow us to go into alpha-testing in isolated, situationally specific, environments like aged-care facilities and schools.

As SocialCare Chat grows, so will the staging ground set by Microsoft Azure. With extra data availability and future development capabilities always at-the-ready Social-Care Chat, like the market and our families, never has to stop growing.

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Upon launching our application, we will need to commence with the marketing of The SocialCare Chat. We know that our target market will be generation X, Y, and Z as they will be the ones to decide if it is right for their loved one and create interest with their elderly friend or family member.

The first stage of the XVI advertising and launch plan for The SocialCare Chat will focus on creating brand awareness through the likes of social media such as Facebook, Instagram, and YouTube. We will aim to attend various age care facilities and demonstrate our application to the elderly, their family and friends that are visiting as well as the workers. We know that our application will thrive through word of mouth marketing therefore it is imperative we show them the product, how easy it is to use and the benefits.

The second stage of our advertising plan for The SocialCare Chat application will be through using print media, radio and television advertising to create further brand awareness around our application that aims to solve the current disconnection. A variety of promotional content will be required, such as images of individuals using our application, and a short informational video that can be used for television. The advertisements will all focus on the benefits of The SocialCare Chat, the ease of use, our contact information, and how to download the application.

We are looking to invest heavily in our marketing; therefore, we must ensure that we market correctly by sourcing professionals. Throughout all of this, we will gather and analyze data from all aspects of marketing we invest to better understand what marketing approach performs effectively so we can continue to invest our time and money in the right areas.

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XVI wants to create a web application designed specifically for the elderly and those with a disability. Together, we devised a plan on how we will go about creating our beta application. Initially, we explored and compared Microsoft Azure, Amazon Web Services and Google Engine. We ultimately decided to use Microsoft Azure. The entire team signed up and proceeded to learn Microsoft Azure, only realizing how extensive the platform is. It became a little overwhelming for all and with little time, the team was starting to stress.

Whilst attempting to learn Microsoft Azure, we were also working through how we were going to develop the desired applications. We investigated the use of a third party such as Flutter or Appy Pie however, we were not satisfied with these options because we would not own our data. We also considered learning a new code language and developing the application/s from scratch.

As a team, we decided to do it manually as we would learn more from the experience and develop our newfound skills. More investigation of a range of software and code languages was done to decide on what we would use for this component. As half the team was comfortable with Eclipse, we decided to continue using this software and coached the others how to download it if they were interested in potentially learning. The language we chose was Java as half the team is currently learning something similar in RMIT’s Introduction to Programming, so we thought we may be able to easily transfer what we have been taught and learn along the way. We opted to use JavaFX as this allowed us to put together an application GUI and Java would code such an application, without us being able to source code online. We thought this would be the easiest and most effective way of developing our application. We also chose to use JavaSE 8, Java JDK, e(fx)clipse and Gluon Scene Viewer as plug-ins, languages and development kits.

The team decided it would be useful to start learning Java and JavaFX through the use of YouTube, we found a channel that had 68 videos at approx. 13 minutes on average. The team felt quite overwhelmed however began watching Java tutorials.

It was at this point that a team member put their hand up to say they could not take this huge project on over the coming weeks due to work commitments. It was then another member from the team reached out to the group's tutor to discuss actual requirements of assignment 3 as we felt maybe we were being too ambitious; after this conversation took place, we realized we were. The team rejoined and reevaluated what needed to be done and instantly felt like they were back on track with a clear understanding of what needs to be done.

The next steps the team took was creating a storyboard for the mobile application we intend to make. We took on different research topics that allowed us to deeply understand what we needed to do, the skills and time required to achieve our project.

* Phase one: Launching a web application specifically for the elderly.
* Phase two: Develop our application to include an interface designed /catered to those with a disability.
* Phase three: Develop our mobile application for both elderly and those with a disability on both platforms.

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The SocialCare Chat is quite a big project so rather than focusing on the development of the applications, we proceeded to focus on what our desired result will be exactly, how we will achieve it, what we will need for it to be successful and when do we want it ready by.

We began by creating a storyboard of how we want our web application to look, covering design and functionality features including the following:

XVI aims to have an application that is user friendly...

* + - We will do this by using big buttons and clear, simple text
    - We also want the elderly to know we have designed the application for them specifically so we will use images and colours that will hopefully resonate with them.

Functionality:

* + - When signing up to SocialCare, there will be an option for those 65 and above
      * Here they will register their main contact
      * This connects their loved one directly and allows them to assist and control settings
    - Once signed up, the interface is simple and straightforward
    - The next screen will have four options for the user to choose from including:
      * Chat
      * Games
      * People
      * HELP
    - The chat option allows them to decide between:
      * Text chat
      * Video chat
      * Voice chat
    - Through the games button, they will have access to play a range of games and brain teasers
    - They can also opt into challenges and compete against their connections
    - The use of photos is there for the elderly to be able to identify their connections with ease
      * Once they select their connection, they can decide to chat with them or play games with them directly (without having to search)
    - They will also be able to view who has requested to connect with them and approve/decline accordingly
    - The HELP function allows them to notify their main contact that they are having issues
      * We plan to collate data of what the main concerns would be and intend to have a few options they can choose from, however, to begin with, we will look to only have a password help option
    - Those 64 and under will have a separate login and will not need to register the main contact
    - Their layout will be similar however will have an expandable navigation bar on the left
      * This is where they will be able to access the controls of their elderly user
        + Assist when they require HELP
        + Update setting preferences etc.
      * Manage their main connections (they can have multiple)
      * Notifications
      * Access games and chat features
      * They also have the ability to “add connections”