Assignment Part 1 - Proposal

OUA Building IT Systems (CPT111)
SP1, 2021

Better Late Than Never

by

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27/03/2021

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Section 1: What

Project Name

2D Farms – Live the Life

Project Description

Our project will take the form of a 2D platformer game. The game will be a life-like farming simulator. The player will control an avatar, starting the game with a rundown house and limited fields to work. The farm will have little resources; however, the player will be able to access a bank loan dependant on the difficulty setting selected. With movement and interaction with the items and fields, the user will be able to plant crops to gain resources. On completion of plantation, the fields will grow until ready for harvest. The end resulting product can be sold to vendors automatically. With each task the user gains experience and will progress through levels to slowly unlock more fields and upgrades. The player will have to ensure that the farm is profitable to avoid bankruptcy, doing so will stop the bank from repossessing the farm and ending the game.

The game is a pure farm and sell product. No production lines exist within the game it is a simple plant, maintain, harvest, and sell. The game will be intended as a real-life simulator, therefore there will be a realistic time lapse component. Depending on the amount of game hours a player dedicates to the game will dictate how the game speeds up or slows down, each day will consist of 24-hours. With all enjoyable games there needs to be an end in sight. Paying off the farms bank debt is the main goal of the game. If a user pays off the mortgage regularly, they can continue the game and live a stress-free farm life. If the user struggles to produce and repay their mortgage they will have the bank knocking on their door, and the bank will foreclose on your farm ending the game. There will be no second chance avenues to revive your farm, you will need to start again which gives the game a representation of a real-world situation.

The Team

Channon Harper

Student Email Address: s3871491@student.rmit.edu.au
Your Locale : Greenmount , Australia

Background & Passion in IT:
My background in IT is mainly self-taught or taught through family members as Grandad, Dad and Brother all had/have roles in the field of IT. Apart from the subjects already undertaking through RMIT I am ticking of boxes to complete a bachelor's course. My main passion at this stage is coding and hoping to find a role in cyber-security.

What are you good at / What you're interested in?
Currently I am reasonable at coding and development, also organizing deadlines as the latter fits with the job role I have currently as a foreman/supervisor. I am mainly interested as stated previously in cyber-security however this does span to cover other areas anything that has me looking at the skeleton of a program or working out why a certain section of code does or does not do what it is tasked just appeals to me.

What are your weak-point in the context of the project?
The front end of the project may be concerning for myself bringing it all together into one package. Also getting use to the development tool we will use although this is yet to be determined.

What role do you see yourself mainly playing in the team?
I would like to say the guy in the background just getting tasks done, however I see myself playing more on the dark side role of delegation and organization otherwise known as Team Leader. This is however only due to the fact that I have the most allotted free time.

Jessica Cramb

Student Email Address : s3813728@student.rmit.edu.au
Your Locale : Brisbane, Australia

Background & Passion in IT :
My interest in IT started as early as high school and over the years I have narrowed that interest down to coding, with a little front end development.

I have done a few entry level courses in coding with basic languages such as java, html and CSS that have contributed to my Bachelor of Technology as well as

personal interest. For most of my working life I have held administrative positions and in my current role I liaise with our IT providers to enhance and maintain the organisations database, which has really solidified my passion for coding. I hope to move into the IT industry within the next 5 years.

What are you good at / What you're interested in?
My main interest is with coding, in all languages. At the moment though I have only learnt basic-moderate html, java and CSS. In a non-information technology sense, I have honed skills in writing specification documents for projects and other administrative correspondence.

What are your weak-point in the context of the project?
I would say game development is my weakest point, as I am yet to try my hand at this skill. Although this is something I am really keen to learn.

What role do you see yourself mainly playing in the team?
I imagine my strongest asset for this assignment will be in assisting with the development of submission documents e.g. project proposal and contributing to ideas on the direction of our game. However, in the spirit of pushing myself beyond my comfort zone I will be trying to do as much work as needed in the actual development of the game.

Damon Eilers

Student Email Address: s3616367@student.rmit.edu.au
Your Locale: Melbourne, Australia

Background & Passion in IT:
My passion for IT began at a young age. To encourage me with studies my father purchased my first computer in 1991. From there, I became interested in hardware and the role it played in modern computing. So much so that in a moment of insanity according to my dad I decided to take the one-week-old PC apart and had laid it out on our kitchen table. To his shock I had managed to put it back together and working normally. The interest in working in IT did not happen until about ten years ago when I decided to change careers from the Oil industry where I am today, working in a large two campus high school within IT department in a small team of seven people. We cater to over 2000 users both student and staff. Working in education has been fantastic as there a lot of human face to face interaction as opposed to the faceless email/phone some helpdesk roles offer.

What are you good at / What you're interested in?
Hardware is still holds the most interest for me as I am always want to make improvements – whether it be efficiency, speed, or functionality. With hardware and the creation of Virtual Machines using VMware software. I am also interested in

backup software and data retention and the used of software such as Veeam has revolutionised the way we now back up data.

What are your weak-point in the context of the project?
My week-point would be a skill such as coding. I have not had much exposure to it out of necessity in the workplace and would like to have a greater understanding and skill base going forward.

What role do you see yourself mainly playing in the team?
I feel my role would be a fill the gaps type role and doing anything the team needs me to do. As time progresses things may change. The team will evolve into something different from the first day until the last, and all our roles may change when we learn more about what each member of the team has to offer.

Joseph Tselios

Student Email Address : s3858508@student.rmit.edu.au
Your Locale : Melbourne, Australia

Background & Passion in IT :
My passion for IT began at a very early age through video games. Living in a strict family of Mormons resulted in my ability to have fun being very limited. Video games were literally my only escape. I became so fascinated by the different worlds that I could explore and the way in which the worlds were able to become alive through a console. I still remember to this day being around 8 years old trying to load a CD encyclopedia into my computer to explore random information that I otherwise would have never learned. It amazed me that a disc was able to hold information that I could actually learn.

While I grew up and increased my understanding of computers I learned about modding. Thanks to Morrowind I was able to spend a large amount of time dedicating myself to editing a game and exploring different methods to fun. The more I explored the IT world the more questions I had. It also became apparent that I knew more about computers than my friends and family regardless of my age. The questions I would get sounded to stupid to me because the answers seemed so obvious. This is when I realised how cool knowledge was, the ability to help people who otherwise wouldn't have a single idea on how to fix a problem. This is what sparked my passion for IT.

What are you good at / What you're interested in?
I am good at remaining disciplined; therefore I enjoy coding. Regardless of how hard the task may seem I do not give up until I have achieved my goal. I am most interested in making life easier for people. Automating processes that could otherwise take hours to do is one of my biggest satisfactions.

What are your weak-point in the context of the project?
My weakest point will be my communication skills, while I do thrive in social environments, I don’t really enjoy communicating through correspondence. I find it goes against my human nature to conduct conversation in real life, being able to analyse a person's body language and vocal tone.

What role do you see yourself mainly playing in the team?
I feel like my role in the team will be to assist the leader in executing a task. I will take the position of a role player, people give me a task, I execute the task. I work best without grey areas. I work best when the goal is clearly defined, I understand the procedure to achieve such goal, and then I complete it.

Demonstrable Outcomes

Minimum Viable Features

MVF 1: Player movement

The backbone behind the game is the ability to control the avatar. To facilitate this, directional movement will be bound to specific keys for example, WASD for PC platform. In addition, this feature will ensure that appropriate avatar animation is played depending on the direction that the avatar is moving.

To confirm that this feature is working correctly the following will be tested:

- Avatar moves in the correct direction as listed:
    - up/forward when 'W' is pressed
    - left when "A" is pressed,
    - right when "D" is pressed
    - down/backwards when "S" is pressed

- The animation changes to the correct set when changing direction as listed:
    - avatar faces left of the screen when "A" is pressed
    - avatar faces right of the screen when "D" is pressed
    - avatar faces up/away from camera when "W" is pressed
    - avatar faces down/towards camera when "S" is pressed

- We will also test that the idle status is set correctly as part of this feature as listed:
    - avatar stops moving when key is released
    - avatar is idle when none of the assigned keys are pressed
    - idle animation set plays when avatar is in this state

MVF 2: Item Interaction

Initially the game will only be incorporated with interactive objects. These objects will give the simulation a better testing sandbox environment. Players will be able to interact with objects by moving close to them, once a player is close enough an icon will appear on screen, indicating that the object is interactive. To engage with the object the player will need to press an assigned 'action' key. This key will open up the item menu, providing the player with actions specific to the item.

There are a few validation tests for this feature, given the levels that are required for the feature to be a success, as follows:

Overall testing:

- This will be deemed successful if the functionality works and does not cause crashes, errors or any other unforeseen issues.
- Items must have a range for the interaction to work, with the popup window showing which item the user intends to interact with.

Level 1:

- User must be able to walk near the object and be given a sign that the item can be interacted with; this will be a notification onscreen in the form of a popup window.
- When the player presses the 'action' key the item menu will open.

Level 2:

- Once the item menu window has become apparent the user may then press the interaction key to run further coding on the object.

Level 3:

- The action performed should match the option selected in the item menu.
- The item menu closes before performing the assigned action.

MVF 3: Time Lapse

To add a level of realism to '2D Farm - Live the Life' the game will have a running time clock at an increased time scale. The significance being that gameplay will cycle through day and night at an increased speed. The speed multiplier is yet to be confirmed however, once the in-game time lapse speed has been confirmed, an estimated game time minutes/hour per each real time minute will be calculated and recorded for future reference.

To test that this feature is running correctly, we will perform the following:

- The game will be run for a set amount of real time and the in-game elapsed time will be noted. The game time elapsed during this period will then be compared against the pre-calculated figure to confirm it matches.
- We will also test for in game continuation by checking that the game time listed at the time of saving is still the same when the game is reloaded.

MVF 4: Menu

This game will feature several menus for various task completion, ranging from item specific menus to general gameplay e.g., pause menu with save, controls etc. Menus may be accessed either through a key bind (e.g., 'M' for main menu) or an interactive button on screen (used on interactive crop items). In any case, the input from the user must bring up a menu window.

To test that this feature is running correctly, we will perform the following:

- Testing this will be as simple as checking the window comes up at different times of gameplay.
- Testing that the features within the menu work successfully e.g., pressing 'controls' opens the controls sub menu and then the sub menu functions work correctly also.

MVF 5: Growing and Harvesting

The growing and harvesting feature will allow the player to interact with seeds and crops through actions such as planting, caring (e.g., water or fertilize) and harvesting. This feature will include the following elements:

- crops will have a timer to indicate their growth progress. This will be aligned with the time lapse function (mentioned above) meaning that the crop timer will decrease as the in-game time passes.
- Once the growth counter has reached 0 another counter will begin. This second counter will indicate time available to harvest the crop.
- If the harvest counter reaches 0, the crop will no longer be available for harvest and instead the player must replant the field with a new crop.

For this feature to be viable, the three MVFs movement, interaction, and time-lapse must be functional. To confirm that the growing and harvesting feature is viable we will test the following:

- the player is given an interaction menu when next to the crop field.
- the appropriate timer is displayed, along with the correct animation e.g., half-grown crop is shown whilst the growth counter is timing down.
- appropriate options are displayed depending on stage of crop growth e.g., water/fertilize during growth counter, harvest/replant during harvest counter or replant option after harvest counter has reached 0.
- timers are ticking down in line with time lapse feature.

Extended Features

EVF 1: Levelling System

Our game is based on an experience and reward system, the player will need to gain experience to increase their level. By increasing their level, the player will have access to more features within the game. The concept of the levelling system is that the player must complete specified tasks, or a set number of specified tasks in order to gain experience. Experience will be added to a counter that is displayed onscreen as an experience bar. The experience bar will also feature a number on one side that indicates the current level of the player. Once the player has earned enough experience points to progress the experience bar will be reset.

For this feature to be viable all MVFs listed above must be functional, as the combination of all will allow players to complete specified tasks in game.

For this to be working as intended the experience bar must do the following:

- Is present on screen and displays correct level number.
- Successful task completion will add set gains amount to the experience bar.
- Experience bar fills as designed.
- Have level increases with a certain amount of experience required for each task.
- Once the player progresses to a new level the experience bar is reset/emptied but the level number is adjusted.

EVF 2: Unlockable Items

The 'unlockable items' feature will introduce new items to the game depending on the level of experience the player has gained. Most items will be locked at the beginning on a new game (level 1) and only made accessible once the player has increased to levels 2+. For full functionality, a shop will be added to the menu system and upon purchase of these new items the gameplay changes to suit e.g., an upgrade of watering system will yield crops faster making the time lapse for growth shorter and the expiry of the crop longer.

For this feature to be viable, the EVF 'levelling system' must be functional as this will determine the current level of experience the player has and therefore which interactive items will be made available.

To test this feature, we will look for the following:

- items are locked at the beginning of a new game until at least level 2 experience is reached.
- only select items are unlocked through each experience stage.

EVF 3: Game Fail

As previously noted, the backstory of '2D Farms - Live the Life' is that the player has taken out a mortgage to establish their farm. The goal is to run the farm without the bank repossessing it due to failed mortgage payments, and maybe even turn a profit. For the farm simulation to be realistic and to add a level of complexity to our game, '2D Farms - Live the Life' will have a game fail feature. This game fail feature has many aspects of the game rolled into one:

- The inclusion of a money system: crop yields will produce money whereas crop planting will consume money.
- Regular mortgage repayments: the bank take money every month.
- If the player has not made enough profit to pay the bank over the span of 3 months your farm will be repossessed and the game ends.

To test that this feature is working the following will be checked:

- Crop sales are increasing the players income level according to set prices for each crop type and quantity sold.
- Crop planting is reducing the players income level according to set prices for each crop type and quantity planted.
- Mortgage repayments are deducted from the players income level at set intervals and correct amounts.
- Go three in game months without making enough to cover the mortgage and ensure that the game ends.
- Possible establish bank notices for late payment?

Project Motivation

- Project Motivation came from choosing what we believe we could achieve within the time frame allotted to complete the project successfully. Each person within the group enjoys games, and gaming simulators give the user the chance to experience a real-life escape to a different life. It is part of our interest as we all like to play games and to have our ideas put into something we can then play seemed beneficial. We chose a project that none of us have really worked on before, thus pushing the limits of the team to gain new knowledge in an unexplored area of technology.

Project Justification

Justified Workload

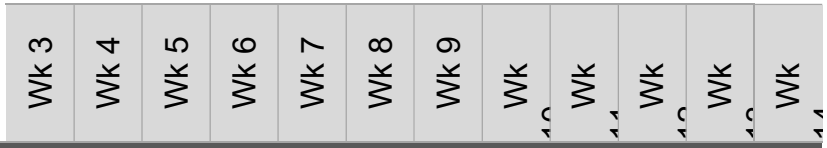
When planning a project, a key consideration is ensuring that deliverables are met in a timely manner. Resource organisation plays a large part in project success. According to float.com effective resource planning will maximise available resources, improve team efficiency, stop burnout and help to map out resource allocation for future projects (Meier, 2019).

This project is being undertaken by a team of individuals that each have competing responsibilities such as home life, work etc. To mitigate competing responsibilities, consideration has been given to the limited time available for team members on a daily or weekly basis. As such, most tasks have been given a minimum of a week to allow adequate time for completion without placing too much stress on team members whilst still ensuring that productive outcomes can be achieved. The following chart provides a timeline of the project, broken down to a week-by-week task allocation.

2D Farms – Live the Life

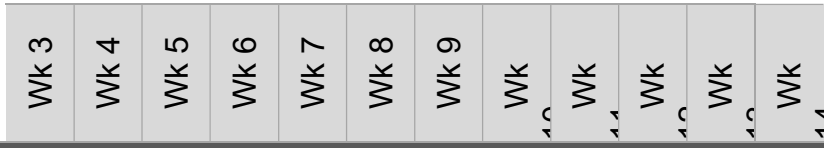
Task	Assigned To	Start	End	Wk 3 15/03/21	Wk 4 22/03/21	Wk 5 29/03/21	Wk 6 5/04/21	Wk 7 12/04/21	Wk 8 19/04/21	Wk 9 26/04/21	Wk 10 3/05/21	Wk 11 10/05/21	Wk 12 17/05/21	Wk 13 24/05/21	Wk 14 31/05/21
Assignment 1 - Project Proposal															
Project Name	Channon	21/03	21/03												
Section 1: Project Description	Channon	21/03	21/03												
Section 1: Project Motivation	Channon	21/03	21/03												
Section 2: Communication Expectations	Joseph	21/03	21/03												
Section 2: Decision Making	Joseph	21/03	23/03												
Section 1: The Team	Everyone	21/03	24/03												
Section 3: Task Allocation and deadlines in report	Jess	21/03	25/03												
Section 3: Task Allocation Trello Cards	Jess	21/03	25/03												
Section 1: Demonstrate Outcomes – MVFs	Channon	21/03	27/03												
Section 1: Demonstrate Outcomes - EVFs	Channon	21/03	27/03												
Section 1: Project Justification - Beyond Capabilities	TBC	24/03	27/03												
Section 1: Project Justification - Project Risks	Jess	24/03	27/03												
Section 1: Project Justification - Justified Workload	Jess	25/03	27/03												
Section 2: Collaborative Workspaces	TBC	25/03	27/03												
Section 2: Resource and Tools	Joseph	25/03	27/03												
A1 Formatting	Jess	28/03	28/03												
Submit Assignment 1	TBC	28/03	28/03												

2D Farms – Live the Life



Task	Assigned To	Start	End
Assignment 2 - Interim Project Report			
Section 1: Design - MVP 1	TBC	29/03	6/04
Section 1: Design - MVP 2	TBC	29/03	6/04
Section 1: Design - MVP 3	TBC	29/03	6/04
Section 1: Design - MVP 4	TBC	6/04	14/04
Section 1: Design - MVP 5	TBC	6/04	14/04
Section 2: Plan - List of Technologies	TBC	14/04	22/04
Section 2: Plan - Work Effort	TBC	14/04	22/04
A2 Formatting	TBC	22/04	25/04
Submit Assessment 2 - Interim Project Report	TBC	25/04	25/04

2D Farms – Live the Life



Task	Assigned To	Start	End
Assignment 3 Stage 1: Project Report			
Project Background	TBC	26/04	2/05
Project Progress	TBC	26/04	9/05
Challenges and Learning	TBC	3/05	16/05
Marketing Pitch	TBC	16/05	20/05
Skills and Jobs	TBC	16/05	21/05
Format Assignment 3 Stage 1: Project Report	TBC	20/05	23/05
Submit Assignment 3 Stage 1: Project Report	TBC	23/05	23/05
Assignment 3 Stage 1: Project Presentation Video and Project Team Log			
Presentation Video	TBC	10/05	23/05
Team Log	TBC	23/05	29/05
Format the video	TBC	24/05	30/05
Submit Project Presentation Video and Project Team Log	TBC	30/05	30/05

Beyond Current Capabilities

Our team appears to consist of members who are in very similar stages of their IT knowledge and skill sets, with most members having a basic understanding of one to three coding languages. There is also a consistency in experience with game development as most team members have noted that they have not engaged in much game development or even considered trying their hand at building a game. For those that have some experience, this has been more attuned to dabbling in game development.

Our team collectively views this subject as an opportunity to explore an avenue that we would not normally pursue. This opportunity will help us to gain insight into game development and more importantly, build on our current respective skills in coding. We as a team believe can be built on future study and assist in achieving our respective IT career goals, as highlighted below:

"My knowledge is quite limited in reference to our project (…) I also have never played around with 3D gaming so this will be a learning curve for me." – Joseph Tselios

"I hope to build on my basic knowledge of java, html and css and also learn other languages such as C++ and C#. I am grateful to have found a group that wish to do game development so that I can have exposure to C++" – Jessica Cramb

"My coding experience is extremely limited, and this type of project is brand new to me, which is what made it so attractive. To have the opportunity and exposure to an avenue I have not explored will be a new experience that I will hopefully build on in the future." – Damon Eilers

"Currently I have experience with java, html and some python. I know that even with these limitations by the end of the project I will have learnt something completely new furthering my experience which in turn will help me decide if game creation would be another possible avenue I would like to pursue in the future." – Channon Harper

Project Risks

Risk: Scope Creep

Scope creep occurs when the project's completion starts to 'creep' beyond the agreed deadline and budget. This is caused by uncontrolled changes to various aspects of the project including the specifications, key deliverables, and boundaries. Uncontrolled in this context refers to changes that are last minute and not documented, "changes that are documented and implemented as part of the updated scope of a project are controlled" (Scope Creep Definition & Examples, 2019).

An example of scope creep for our project could include an uncontrolled change to the HUD display for in game information to the player, such as the addition or removal of information that will be provided like hunger or health.

Documentation is a key part in project management and plays a large role in mitigating scope creep. There are a few aspects that should be adhered to in order to keep a project on track, these include:

- Clearly documenting the project scope and having this available for all stakeholders
- Having a clear and documented process around changes to scope requests. According to (Ray, 2013) "whilst change is inevitable in a project, having a clear change control process ensures that all changes are reviewed for approval and only then, if approved, is the project scope document is updated."

Risk: Technology Risk

The goal of this project is to develop a computer game and so success of this project relies heavily on technology, namely the website Unity.com, stable access to the internet and game files and code. Some technology risks of concern for this project include:

- A team member unexpectantly losing internet access for an extended period of time
- The unity.com website going offline
- Game files or code removed

To mitigate these technology risks, all team members should be aware of and have access to the location of the files and a copy should be taken on a regular basis for example. once a week. Furthermore, in the event that a team member experiences technical issues that impede their access to resources, the team should be informed

immediately so contingencies can be put in place and tasks can be temporarily reallocated. Lastly, alternative game development platforms should be sourced in the unlikely event that the Unity website will go offline, this will ensure that work can continue on '2D Farm – Live the Life'.

Risk: Communication Breakdown

Effective communication plays a pivotal role in the success of group work as it fosters a cohesive approach to the project. This is even more evident when members of the team work remotely. Remote teams must take into consideration the difference in time zones, access to online communication resources and conflicting obligations. Some examples of communication risks include:

- Lack of progress updates on allocated task, meaning the team must try to figure this out themselves.
- Lack of participation in group discussions or meetings
- Lack of response to requests or enquiries
- Worst case scenario, team members not communicating with the team at on any level

Preventative measures that can be applied to reduce the risk of communication breakdown include setting clear communication expectations and guidelines from the outset of the project, these include:

- List of resources that will be used which includes a brief explanation of the application e.g. Microsoft Teams for scheduled group meetings, Discord for ongoing/general discussions.
- Clear rundown of task requirements including brief descriptions for each task and deadlines for completion.
- Set regular full team meetings to check in and re-assess task allocation, these should be at least once a week. Note: these should not replace the need for regular discussions for ad hoc enquiries.

Team Dynamic Challenges: Contradictory Goals

Team assessment in a tertiary setting will undoubtedly mean that there will be varying degrees of approaches to study and disparate goals regarding grades achieved. An example of this would be a group where some team members aim for grades in the higher end of the scale for all study e.g. distinction or high distinction, whereas other team members are content with a pass grade. This disparity could cause conflict in the work presented if not handled correctly.

To minimise and discourage conflict an initial discussion around goals for the grade should be discussed and any issues should be raised in a team setting, so that an agreement can be made on the average grade that the team will aim for. People have varying approaches to tasks whether it is in relation to study, work or personal, this is a fact of life. As such, in the first instance the team should try and come to an understanding of the quality of their assessment in terms of grading and each team member should try and adhere to this in their own way. If an individual's approach to assessment work conflicts with another individuals, there should be a level of acknowledgement and understanding that other people may have different approaches and trust in the agreement made by each team member that they will strive to achieve the agreed upon grading.

Team Dynamic Challenges: Competing Responsibilities

Online study makes access to tertiary study readily available for people who have established priorities in their life, such as employment, family obligations, hobbies and other professional or personal development. As a result of these responsibilities, it is common that students have limited time per week to dedicate to their study and the time available will not always line up with their classmates. When working in a group project space, the disconnect in availability can have a negative impact on the project completion as it may mean that communication is intermittent and there is also the risk of deadlines not being met.

To minimise the impact of competing responsibilities, the team could implement the following:

- Effective communication: use of reliable and accessible communication tools for all team members. Ensure that discussions are held in a group setting, this includes both formal and informal.
- Transparent expectations: have clear outline of assessment that includes breakdown of tasks with timeframes and allocation to individuals.
- Thorough documentation: expectations and outlines should be well documented in a central location so that team members can access this as needed e.g., a central word document, Trello board etc. If there are changes to expectations or resources, these should be reflected in the documentation. Team members are then able to access this information at their leisure and catch up on work without uncertainty.

Team Dynamic Challenges: Last Minute Withdrawal

As outlined above, online university study is often undertaken by people who already have numerous other responsibilities in their life, this could include but is not limited to work, family and other study. There is a risk that students may find that competing responsibilities outweigh their online commitment and therefore

must withdraw from their study. In a team assessment, this has flow on effects for the student's remaining team members. Implications of a team member withdrawing from the subject mostly revolve around task allocation and increased workloads, for example:

- Incomplete work initially allocated to the withdrawn student must be re-allocated to remaining team members.
- Time constraints around completion of tasks tighten due to the increased workload of individuals.
- Quality of completed work may be diminished due to tighter timeframes and increased workload.
- Completed work could be submitted late.
- Team member burnout could occur, it should be noted that most remaining team members will each have their own competing responsibilities that they must also balance with their study.

In the event that a team member withdraws from the subject the following approaches can help to minimize the impact:

- Current workload of remaining team members is assessed to identify where capacity to take on additional tasks.
- Tasks are re-allocated as soon as possible, to give team members enough time as possible to complete additional tasks.

Section 2: How

Resources & Tools

Unity - https://unity.com/

Unity is a development platform for 2D, 3D and VR games. It is simple for beginners to learn, use and comes with many tutorials to help you develop your skill within the program. The project team is using this engine as it should be the easiest platform for everyone to learn and create with, it also has many pre-sets within the environment to help development. The version we are using is 2020.3.1f1 and with the benefits of being a student at RMIT the professional version is free for 4 years. Alternatives would be Godot Engine or GameMaker Studio 2. However, since Unity is part of the student access, we have decided to use this program as it is readily available.

Discord - https://discord.com/

Discord is an easy program to use that can make communicating amongst the team reliable and consistent. There is a mobile version that will allow people to communicate while are away from home. There is also the ability to conduct meetings through discord with its ability to communicate through voice and video.

Microsoft Teams - https://www.microsoft.com/en-au/microsoft-teams/group-chat-software

Microsoft Teams is a more professional platform that we will be using for communication and documentation. It does give us the ability to conduct calls with each other and securely connect, access, and share files in real time. Teams also allows us to stay organised by keeping a calendar together and keeping documentation clear and ready to use.

Trello - https://trello.com/

Trello allows the group to clearly communicate exactly what needs to be done, when it needs to be completed and who has dedicated themselves to completing ‘x’ task. The Trello board at a first glance can look daunting, but it is just a massive organisational board that lays out steps in a visual manner. It is very flexible in design which allows for the group to use its flexibility to our advantage.

Collaborative Workspaces

MS Teams - https://www.microsoft.com/en-au/microsoft-teams/group-chat-software

Access can be made through pc or mobile device simply download the software or application and log in with your student ID the group has been premade through the course.

Trello - https://trello.com/en

Access is made through creation process within this unit of study. Creating an account with your student ID this can be accessed through web application or through the tab inside MS Teams.

Github - https://github.com/

Access to Github is free for all users, however as students of RMIT we have access to the student pack. This has a web application alongside a desktop app. This will be used for the project creation itself.

Communication Expectations

The team will use Discord for general communication and MS Teams for meetings and recording. Responses from group members are expected within 24 hours. General chat will be done whenever people can, with Discord being the platform which allows anyone to scroll through and view discussions that may have missed. Using @ to list the group users you need a response from should be used if not general chat.

The expected frequency of responses should be at least once every 24 hours. If someone has not responded to a message that is meant for a specific person, then that person should respond within 2 days.

The team will be using these tools (Discords, Microsoft Teams) to keep each other up to date with what work is needed to be completed and how everyone is working individually. This allows each team member the opportunity to express themselves if they feel overwhelmed by the work to the rest of the team. This allows other members to volunteer for work to assist members who feel like they are overwhelmed with their workload.

Our action-plan for all team members who do not respond to communication or attend meetings is to send out an email directly to the persons RMIT email and confirm that they want to participate in the group and the entire course in general. We will then

reach out to our mentor to communicate that we have attempted to reach out to the person via email. If no response, we will leave the decision with the mentor to determine the removal of ‘x’ individual.

Decision Making Processes

Decision making will be done via a voting system. Ideas and changes being made by a majority rules system and will be put onto Discord. The message window is 24 hours to major changes and any non-reply within the timeframe will negate the person from a vote. This is only for changes that have differing opinions normal decisions will be talked about during weekly meetings and a vote will take place only if a member completely disagrees.

The best way for us to resolve team disputes it to simply refer to our decision-making process. In a world where communication and teamwork are vital for, any disputes will be handled through discussion and reminder of our decision-making process. If members are negative towards another a simple 5-minute cool off break can be called upon to give members, the time to gather clarity rather than react with emotion. Logic overrides any emotive language or reaction since as we sometimes may overreact to situations. In summary, we will solve disputes through our decision-making process.

Section 3: When

Title	Planned Start	Planned Due	Lead by
Week 3	(15 March 2021 to 21 March 2021)		
A1 Section 1: Project Name Trello card: https://trello.com/c/fuBeDph7	21/03	21/03	Channon
A1 Section 1: Project Description Trello card: https://trello.com/c/jAI0MjH6	21/03	25/03	Channon
A1 Section 1: Project Motivation Trello card: https://trello.com/c/tFULlmxT	21/03	25/03	Channon
A1 Section 3: Task Allocation and deadlines in report (this table) Trello card: https://trello.com/c/wlb5w4be	21/03	27/03	Jess
A1 Section 3: Task Allocation Trello Cards Trello card: https://trello.com/c/wlb5w4be	21/03	25/03	Channon Jess
Week 4	(22 March 2021 to 28 March 2021)		
A1 Section 2: Collaborative Workspaces Trello card: https://trello.com/c/DxZnpCiL	25/03	27/03	Damon
A1 Section 1: Project Justification a) Justified Workload b) Beyond Capabilities c) Project Risks Trello card: https://trello.com/c/JKOgM7T7	21/03	27/03	Jess
A1 Section 1: The Team Trello Card: https://trello.com/c/QTR4WzOf	21/03	27/03	Everyone
A1 Section 1: Demonstrate Outcomes a) Minimum Viable Features b) Extended Viable Features Trello Card: https://trello.com/c/KYZPpmvP	21/03	30/03	Channon

Title	Planned Start	Planned Due	Lead by
A1 Section 2: Resource and Tools Trello Card: https://trello.com/c/aLWe3nnP	25/03	30/03	Joseph
A1 Section 2: Communication Expectations Trello card: https://trello.com/c/TDQNo237	27/03	30/03	Joseph
A1 Section 2: Decision Making Trello card: https://trello.com/c/RTFLw9mu	27/03	30/03	Joseph
A1: Formatting Trello Card: https://trello.com/c/N7GGqZyf	31/03	31/03	Damon
Submit Assessment 1 – Project Proposal	31/03	31/03	TBC
Week 5	(29 March 2021 to 4 April 2021)		
Set up Unity access and game template	29/03	30/03	TBC
A2 Section 1: Design - MVP 1 Trello Card: https://trello.com/c/ICmJhL05	29/03	6/04	TBC
A2 Section 1: Design – MVP 2 Trello Card: https://trello.com/c/ICmJhL05	29/03	6/04	TBC
A2 Section 1: Design – MVP 3 Trello Card: https://trello.com/c/ICmJhL05	29/03	6/04	TBC
Week 6	(5 April 2021 to 11 April 2021)		
A2 Section 1: Design – MVP 4 Trello Card: https://trello.com/c/ICmJhL05	6/04	14/04	TBC
A2 Section 1: Design – MVP 5 Trello Card: https://trello.com/c/ICmJhL05	6/04	14/04	TBC
Week 7	(12 April 2021 to 18 April 2021)		
A2 Section 2: Plan - List of Technologies Trello Card: https://trello.com/c/4x4qJL52	14/04	22/04	TBC

Title	Planned Start	Planned Due	Lead by
A2 Section 2: Plan - Work Effort Trello Card: https://trello.com/c/s25xNe8J	14/04	22/04	Everyone
Week 8			(19 April 2021 to 25 April 2021)
A2 Formatting (10 points) Trello card: https://trello.com/c/un656UG0	22/04	25/04	TBC
Submit Assessment 2 - Interim Project Report Trello card: https://trello.com/c/RF5RAuHQ	25/04	25/04	TBC
Week 9			(26 April 2021 to 2 May 2021)
A3 Project Background Trello card: https://trello.com/c/n76F1t2K	26/04	2/05	TBC
A3 Project Progress Trello card: https://trello.com/c/0hboyDeg	26/04	2/05	TBC
Week 10			(3 May 2021 to 9 May 2021)
A3 Challenges and Learning Trello card: https://trello.com/c/N1UoHzBi	3/05	9/05	TBC
Week 11			(10 May 2021 to 16 May 2021)
A3 Marketing Pitch Trello card: https://trello.com/c/Pn4p1iH5	10/05	16/05	TBC
A3 Skills and Jobs Trello card: https://trello.com/c/1J40BwjA	10/05	16/05	TBC
A3 Presentation Video Trello card: https://trello.com/c/kUI49xUA	10/05	23/05	TBC
Week 12			(17 May 2021 to 23 May 2021)
A3 Team Log Trello card: https://trello.com/c/QXUMIo8e	23/05	29/05	TBC

Title	Planned Start	Planned Due	Lead by
A3 Stage 1 Formatting Trello card: https://trello.com/c/uZRJVmmC	23/05	23/05	TBC
Submit Assessment 3 Stage 1 Trello card: https://trello.com/c/dFOp2I7C	23/05	23/05	TBC
Week 13	(24 May 2021 to 30 May 2021)		
A3 Stage 2 Formatting Trello card: https://trello.com/c/uZRJVmmC	23/05	23/05	TBC
Submit Assessment 3 Stage 2 Trello card: https://trello.com/c/h7irMUc6	30/05	30/05	TBC

Bibliography

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PMP® Blog - Project Management Professional Training. 2019. *Scope Creep Definition & Examples*. [online] Available at: <https://www.projectmanagementqualification.com/blog/2019/03/07/manage-scope-creep/> [Accessed 23 March 2021].

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