Risk Assessment and Mitigation

Group 1
Assessment 2

Emma Hogg
Isaac Rhodes
Isioma Offokansi
Toby Meehan
Seungyoon Lee
Ali Yildirim

Risk Assessment and Mitigation

Risk Management Process

This document breaks down the issues that we anticipate encountering throughout our project. All entries have been agreed upon by all team members before they were added. Although many potential problems could be identified at the beginning of the project; any foreseeable risks encountered during the run of the project will be added as soon as they are feasible.

We have agreed that to best manage this document and what it represents we should revisit it regularly during meetings allowing us to update, append and discuss it. Each group member will also be expected to track the risks they own and report back on them to the group during these meetings.

For higher likelihood risks the owner is also responsible for taking preemptive measures to mitigate/prevent an occurrence. These steps may take more work such as completing backups of shared documents. In these cases, we hope that going over currently listed risks again will ensure these tasks are always completed.

Finally, we ensured to include noting down when the risks occurred throughout the project. This is linked to the risk monitoring aspect of the project. We noted down when it had happened, what the effect was and how we mitigated the impact of this risk occurring. This was looked over every week as a team so that we could mitigate the risk that had occurred as quickly as possible to minimise the impact.

Risk Register

Type:

We have split our risks into four different types based on their causes and effects. This is to allow us to better track what risks could happen at different stages. We can also use these categories as a shorthand for what can be prevented/mitigated. They are as follows:

➔ *Implementation* - Risks that could affect our ability to create the product.

➔ *Product* - Risks that relate to a change in what we are working towards.

➔ *Technology* - Risks that could be triggered by the technology we are using.

➔ *Team* - Risks caused by people within our team + the customer.

Likelihood:

How likely an occurrence of this risk is. Also affects how actively we need to monitor/work to prevent it. Categorised as follows:

➔ *High* - The risk will most probably affect us during the project and must be prevented/accounted for

➔ *Medium* - The risk occurring is not entirely unlikely but we should be prepared for it

➔ *Low* - The risk likely won't come to fruition during our project but is still worth monitoring just in case.

Severity:

Describes how much an instance of a risk will affect our project. Will also affect how much planning we should do for the event it does occur.

➔ *High* - The risk will have a detrimental impact on the development of the project causing long-lasting or substantial loss on the final product.

➔ *Medium* - The risk will have a noticeable impact on the development of the project causing short-term or minor long-term consequences.

➔ *Low* - The risk will have a negligible impact on the development of the project creating minor short-term consequences.

Owner:
Shows who is taking responsibility for managing a risk. In the event that the management must be done individually or collectively, the owner is listed as everyone.

Happened:
This column describes whether the risk has happened over the course of the project. If it has then there is a comment as to what we did to minimise the impact of this risk occurring based upon the mitigation column. We also included when this occurred and how much it impacted the progression of the project.

ID	Type	Description	Likelihood	Severity	Mitigation	Owner	Happened?
R1	Team	The loss of or unavailability of a team member	Medium	High	Allocate multiple people to the same work or make sure everyone's work is up-to-date and can be viewed on Google Drive.	Emma	A team member unfortunately became unavailable at the beginning of assessment 2 due to personal reasons. We have covered this issue as each person in the team will help to cover the work that they would have been responsible for and therefore this has not had too large of an impact on the team.
R2	Technology	A team member's laptop isn't working	Medium	Medium	Use of University machines and if necessary relocation of work until fixed	Everyone	
R3	Technology	A local repository becomes corrupted	Low	Low	Clone repository again.	Isioma	
R4	Technology	GitHub goes down	Low	Medium	Use repositories stored locally and consider different version	Emma	

					control system.		
R5	Implementation	Someone pushes a commit that deletes everything	Low	Medium	Implement voting on pushes or rollback repository	Toby	
R6	Technology	Google Drive goes down	Low	Medium	Back-up on the local drive	Isioma	
R7	Technology	Losing data	Low	Medium	Back-up online and have multiple copies on other systems	Toby	
R8	Implementation	Someone steals our work	Low	Low	Contact CS exam team.	Emma	
R9	Team	We lose contact with the customer(s).	Low	High	Email CS teams to ask what happened	Isioma	
R10	Product	The requirements change	High	High	Leave the description on every function implemented which will make the re-edit faster	Seungyoon	
R11	Technology	A used library is discontinued	Low	Low	Prior to starting the project discuss various other suitable libraries so that if this occurs we can switch to another one	Isaac	
R12	Implementation	Implementation of unnecessary features	Medium	Low	Delete these features. Reconsider time spent on what.	Toby	
R13	Team	We fall	Medium	Medium	Assign other	Everyone	

		behind schedule (e.g. spend too much time on specific features).			members to / shift the focus to more important aspects of the project		
R14	Technology	The software used doesn't have good support for technical issues	Low	High	Discuss various software possibilities at the start. If one lacks technical support change to a different software discussed	Ali	
R15	Product	Unexpected behaviours we haven't accounted for	High	Medium	Attempt to resolve or patch the issue.	Seungyoon	
R16	Product	An accessibility need arises that hadn't accounted for	Low	Medium	Attempt to implement features to account for the need	Seungyoon	
R17	Implementation	There is a bug in the game that needs to be fixed before can continue	High	Medium	One or more of the team (depending on the bug) spends time fixing the program while other members continue to work	Emma	This occurred as we noticed there was a memory leak in the game. We solved this by ensuring two people were responsible for solving this problem while others could continue to develop. This massively reduced the impact.
R18	Implementation	Some of the tests related to the code fail and need to be fixed	High	Medium	One or more of the team (depending on the failure) spends the time researching	Isaac	During implementation some of the tests we originally had started therefore we ensured that one person would cover this error and

					into the failed test and fixes it		begin to fix it while others start to implement.
R19	Implem entation	The game is boring to play not meeting needs of stakeholders	Medium	Medium	Ensure leave time at end in order to improve functionality and sprites in game to make it more enjoyable	Ali	
R20	Implem entation	Controls of the game become too complex and confusing	Medium	Low	Ask the customer what they feel about the controls and what they would prefer. Change the controls to fit their needs	Ali	
R21	Product	There are issues during the presentation	Low	High	Stay calm and continue to explain. Speak clearly and confidently. Have a back up plan in case a problem has to occur so you can switch quickly	Isaac	