Risk assessment and mitigation

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a)

We have identified risks that we believe are relevant to this project by going through a number of sources.

1. Researching general software development risks.
2. Discussing with other people who have had previous experience.
3. Discussing hypotheticals amongst ourselves and evaluating them.

We have chosen to deliver this in a tabular format. There are 6 defined columns for each risk. The first column being each risk's unique ID. The second column is the type of risk. The third column is a brief description of the risk. The fourth column is the likelihood of that risk occurring on the following scale:

● Low - Very unlikely to happen, with a minuscule chance of occurring.
● Medium - It could happen or not, depending on the mitigation taken.
● High - Very large chance of occurring, and common.

The fifth column is the severity of the risk, so how much damage it could cause. This is on a scale of:

● Low - Not much damage, a couple of hours work at most. Not worth reporting
● Medium - A week of work, this could affect internal deadlines. Group members would be informed to recover swiftly.
● High - A large sum of work or all of it is affected. Project deadline is affected. Group members and teaching staff informed to resolve.

The seventh and final column is the ownership of the risk. They will be held responsible for managing and mitigating that risk.

Our risk ownership is determined by who is most likely to experience that risk and who could help mitigate the risk.

Our risk assessment has been updated continuously since we have started this project. With it being reviewed every fortnight. Ensuring that the risks were still relevant even with a change in scope or if new risks have been identified.

b)

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
1	Project	Loss of work due to corruption or human error	Low	Medium	(1)Frequent creation of backups both internally and externally. (2)use methods that can save automatically. (3) If work can not be recovered, separate it to several team members and make sure it can be finished in a short time(if this work is very important).	All
2	Project	Loss of a team Member (health problem(such as Covid), Internet problem and social problem)	Medium	High	Have a backup for everybody's role (high bus factor) (1) according to the backup, assign the rest of work to other team members. (2) Contact lecturer if too many member are losing or can not finish their job(check whether some of work can be cancel)	All
3	Product	Game Engine limitations	Medium	Medium	Focus on simple mechanics that meet the requirements	All
4	Product and Project	Requireme nt s changes	Low	Medium	Have a flexible code that we can change easily	Adam
5	Product And project	Library/softw are/hardware /method and application become unavailable	Medium	Medium	(1) If it is fixable, we should communicate with members or relational stuff to fix it. (2) If it is not available anymore, transform the document to another available or use	All

					another method to continue the project immediately.	
6	Product	Difficulty and problems on software/ hardware/proj ect/coding	Medium	Medium	Communicate with members or lecturer to solve the problem (1)if these problems can not be solved, use other methods to avoid problems(if it is available) or assign jobs to other members if this problem does not happen on their computer.	All
7	Product	Music or sprite of game problem	Medium	Low	Just need to make sure these are available to use and do not cause any problems. (1)if current one is not available to use, change it.	Tudor
8	Product	Difficulty implementin g the project architecture	Low	Medium	Build a clear architecture and help team members to implement the project in a simple and straightforward manner through code reviews	All
9	Product	AI doesn't behave as expected	Medium	Low	Consider every possible scenario and do lots of testing, also getting reviews from other team members	Liu
10	Product	Low fluency of game process	Low	Low	optimized code and use a different format if necessary	Arminta s
11	Business	Difficulty acquiring the right software to develop the game	Low	Medium	Search around different valid combinations of Software that could be used to develop the game	All