Risk Assessment and Mitigation Document

Team24

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Introduction

One of the purposes of creating this document is to help me understand more clearly the risks that may exist in the project development process, and we will manage and monitor them in the order of identifying risks, analyzing them, and implementing them.

The risk assessment and mitigation document is therefore presented in the risk register:

● Project - these are risks that may affect the project's schedule or the resources used by the project (including team members).

● Product - these are risks that would affect the product quality or its ability to be fully completed e.g. tools in the project having bugs outside of our control.

● Business - these are risks that would affect the team's ability to procure/develop the software.

Each risk within each table is given:

● ID - Each risk has a unique identifier to allow for simple referencing and identification.

● Description - This is a description of the risk.

● Likelihood - This is how likely the risk is to occur - i.e. low, moderate, high.

● Severity - Should the risk happen this is an estimate of how much of an effect it would have again given as either low, moderate or high (Variable shows unknown impact).

● Mitigation - These are the steps we are taking to mitigate the risk, or steps to be taken in case of the risk occurring.

● Owner - This column indicates who is responsible for mitigating the risk and reporting an issue to the group if there's a problem. This prevents risks from repeating (All team members are made aware of risks which also means that in rare cases where the owner doesn't see the risk first the issue can be still found quickly).

Risk table (or one register per category):

We will analyze the risks we have identified and label them according to degree (low Moderate High) and severity (Low, Tolerable Serious, Catastrophic)

Risk review and future plans

Finally, we will add the risks we are aware of to the table one by one and return to the risk periodically to re-evaluate the likelihood and severity of the risk to ensure it is accurate.

Risk Table

ID	Type	Description	Likelihood	severity	Mitigation	Owner(s)
R_BUS	project	Team member long-term sick or unavailable	L	H	Clear documentation and communication. Use Git and Google Drive to ensure files are accessible.Coding standards ensure portability.	Emily
R_TOOL	Project	Development tool becomes unavailable	L	H	Use of mainstream tools, e.g. libGDX, Eclipse. Local installation of tools in case online sources are unavailable.	Joe
R_ILLNESS	project	Team member misses several meetings due to illness	H	M	Plan around deadlines to avoid periods of crunch caused by staffing loss. Cloud file and code storage. Clear internal documentation. Coding standards to ensure portability.	Louise
R_UNSTABLE_LIBRARY	Product	Unstable game due to bugs in upstream library	L	M	Use popular libraries with developer teams who issue frequent updates.	Joss
R_UNSTABLE_GAME	Product	Unstable game due to programming errors	H	M	Read documentation for implemented libraries. Follow programming conventions. Code review and automated tests to catch errors.	Amber

R_SUS	Project	Data loss due to malicious actors or mistakes	L	H	Backups on GitHub and Google Drive. Frequent git commits.	Josh
R_PROD	Project	Project is not complete and up to standard by the deadline	L	H	Frequent checks on which tasks have and haven't been completed by their particular deadlines	Emily
R_DEPENDENCY	Project	A critical task that many tasks are dependent on is held up, halting progress	L	H	Effective planning to ensure that critical tasks are prioritised and completed	Louise
R_INTERCHANGE	Project	When problems arise, there may be different understandings and ideas, resulting in differences	M	L	Discuss together and combine everyone's views and opinions to finally come up with an answer that everyone agrees on	Alan
R_UNIVERSITY	Business	Issue with the university means we are unable to get further customer feedback from the lecturers	L	H	Ask an extensive list of questions in initial customer meetings. Document all our decisions in case we are unable to contact lecturers.	Emily

R_SCREEN	Product	In-game graphics may not be easily distinguishable on smaller screens	M	H	Use representative images to make it easier for users to distinguish	Alan
R_SCREEN_SIZE	Product	The project may run on screens of different sizes, which may cause black borders or fail to run and affect the user experience	M	H	Use different screen sizes to test runnability	Alan
R_SCHEDULE	Project	The team members are absent from the team meeting due to their own reasons, so they don't know the current progress of the project or what has changed	M	H	Attend group meetings regularly, check discord or Github regularly.	Alan
R_CODEBASE	Project	The inherited codebase from the previous team has poor comments or documentation, delaying the project plan	L	H	Choose codebase wisely. Ask for help from the previous team when required.	Emily
R_RUN	Product	The project cannot run on WIndows or Linux	L	H	Test in advance to ensure that the project can run smoothly on any system	Alan