ENG1 Group 2 Marlin Studios
Part 2

Risk Assessment and Mitigation

SKYE FULLER

JONATHAN HAYTER

ALEXANDER MIKHEEV

MARKS POLAKOVS

FREDERICK SAVILL

HAOWEN ZHENG

Introduction

This document outlines the risks associated with the project, including details such as the level of harm to the project and our process of mitigation. .

Risk Format

The risk assessment is presented in a tabular format, which includes a unique ID for each risk so that members can easily identify and reference that risk in other parts of the project. The group used a three step process of elicitation:

- Identification
- Analysis
- Mitigation

Ideally the team would avoid encountering any risks throughout the whole project, however this is unrealistic. Potential risks must be considered, and a clear mitigation process reasoned, in order to overcome the risk and minimise its effects in the event that it occurs.

The team drafted an early risk assessment before working on any parts of the project. With consideration, members devised potential risks before working on their assigned section, and would update the table with newly identified risks throughout the course of the project.

After the identification, the identifying member would write a brief description, and then a group analysis was performed. Each member was asked to give an impact rating ranging from Very Low to Very High, as well as a likelihood rating ranging from Low to High. An average was then taken from all of the responses, and used as the final rating.

Risk R16 states that unknown risks have a Moderate chance of occurring and a High impact rating; thus we have decided to allow for ample development time to allow for unforeseen circumstances. During the weekly meetings we have allocated time to discuss and address any new issues that may arise; repeating the group analysis process described earlier for each new risk.

Finally, to ensure the risk analysis was precise, after a risk had been encountered and the mitigation process applied, we rescored the likelihood and impact columns; risk reassessments occurred every two weeks during group meetings.

As part of our risk monitoring programme, we have decided on a proactive risk reporting process. We have a dedicated text channel for it (#risk-reporting) within our Discord server allowing for members to report on the status of risks. Neglecting risks and lack of risk reporting is a naive approach; we utilised this channel regularly for monitoring. In terms of allocating ownership of risks to group members, this was assigned to the group member who was best suited to manage that risk (usually the identifier).
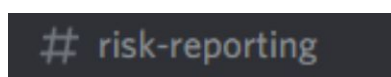

Fig. 1

Risk Assessment Table

ID	TYPE	DESCRIPTION	LIKELIHOOD	IMPACT	MITIGATION	OWNER
R1	Technology	Bugs in required libraries	Low	Moderate	Researching good libraries before use, known bugs and workarounds	Daniel
R2	Technology	Tools becoming unavailable	Low	High	Create backups of tools, research other tools to replace	Mitchell
R3	People	Team member becomes unavailable	Low	Moderate	Have at least two people working on each part of the project to create redundancies	James
R4	Technology	Missing logbook	Low	Moderate	Create several backups in different locations	Daniel
R6	Technology	Software used runs poorly on customers hardware	Moderate	High	Test product compatibility on range of hardware, make scalable where possible	Connor
R7	Product	Slow progress due to bugs, new features breaking existing features	High	High	Use unit tests to ensure any changes don't introduce new bugs or break old features	Yi
R8	Project	Project not being finished before deadline or rushed	Moderate	Very high	Weekly planning and review sessions to monitor progress, ensure project is on track	James
R10	Project	Requirements inflation before deadline	Low	Moderate	Keeping in constant contact with customer to keep up to date with possible changes	Mitchell
R12	Project	Issues with specification/brief	Low	Moderate	Careful reading of brief and meetings with customer to clarify points/discuss possible additional requirements not specified in the brief	Connor
R13	Project/People	Slow progress due to poor productivity/management	Low	High	Weekly meetings to monitor progress, ensure constantly moving towards goals	Daniel
R14	Project/People	Problems in estimating time/resources needed for parts of the project	High	High	Refer to team members expertise from similar projects, provide ample time and leeway for extension	James
R15	Project	Project delays due to adding unnecessary features	Moderate	Moderate	Refer to requirements and planning documents from brief and customer interviews to ensure they are met before considering extra features	Joe
R16	Business/Project	Unforeseen risks/issues	Moderate	High	Allow ample development time to allow for unforeseen circumstances, weekly planning meetings to address or check for any new issues	Joe
R17	Technology	Poor code quality leading to bugs or readability issues	Moderate	Moderate	Use paired programming and have at least two people checking code to ensure quality and readability. Ensure	Connor

					code follows architecture documents	
R18	Technology	Loss of code or technical documents	Low	Very high	Use cloud services like Google Drive, Github to ensure everything is backed up and accessible to everyone, create offline backups as insurance	Mitchell
R19	People/ Business	Unable to have face to face meetings due to pandemic	High	Moderate	Use online collaboration software such as Google Drive, communication software such as Zoom and Discord to ensure team can work effectively online	James
R21	People	Lack of team management experience	Low	Low	Manage by one or two people in the group, and others can give some advice	Daniel
R22	Project	Lack of testing coverage for code	Low	Moderate	Researching good testing methods and implementing them, ensuring a high percentage of code being covered.	Marks
R23	Technical	Losing/ overwriting save files	Moderate	Moderate	User is able to make backups of their save file in case they accidentally overwrite it	Marks
R24	Technical	Window resizing issues	High	Very High	A hotkey (R-Ctrl) was implemented into the main menu to quickly start a game without the need of navigating menus	JJ
R25	Business	Users not understanding the objective or controls of the game	Low	High	A quick tutorial explaining all the controls, features and the objective is presented before every game is played.	Alex
R26	Business	Map navigation for first time users	Moderate	Low	A minimap will be implemented to guide the player around the map	JJ
R27	Project	Team members may have a hard time updating the codebase as they are unfamiliar with the techniques in use	Low	High	Looking through the code, and understanding it before any major changes were made	All
R28	Project	Missing or duplicated information in the previous group's deliverables	High	Low	Careful planning, organisation, and task delegation will ensure all adjustments are completed in a reasonable time. Thorough analysis of documents is required	Alex