



Risk Assessment and Mitigation

3³ Studios | Team 27

James Hooper, Daniel O'Brien, Connor Davies, Joe Krystek-Walton, Mitchell
Simpson, Yiyang Ye



Risk Assessment and Mitigation

Introduction

This document outlines the risks associated with the project, including detail such as the level of risk to the project and how we aim to mitigate these risks.

Risk Format

For the risk assessment, we have used an ID table as a way for users to quickly identify and reference the risk, as opposed to describing the problem in detail and making it more difficult to locate. Regarding the risks themselves, we approached them in multiple steps:

- Identifying the risk
- Analysing the risk
- Determining how to mitigate the risk

Having no risk during the project is the ideal situation, however it is almost inevitable that there exists some risk, thus for those we cannot avoid, minimisation of that risk is the subsequent process.

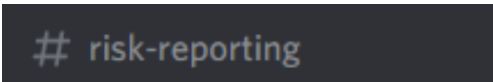
After the identification and brief description of each possible risk, we performed a group analysis of each one, asking each member to give a rating from Very Low-Very High and also the chance at which they believe each event could happen (ranging from Low, Moderate and High); taking the average from the total responses.

As shown within the following table, ID 16 states that unknown risks have a moderate chance of having an impact rating of High on the project, this could be significantly problematic depending on what that might be and thus we have decided to allow for ample development time to allow for unforeseen circumstances. Moreover, during the weekly meetings we have allocated time to discuss and address for any new issues that may arise - risk planning for possible mitigation is a group process that occurs on each risk listed.

Finally, to ensure we have mitigated each risk to the best of our ability, testing is essential. We rescore all the risks after the minimisation to ensure the most accurate and up to date notation; every 2 weeks during one of the group meetings we all go through each risk where the owners re-assess their likelihood and impact.

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. It is easy to neglect risks and determine that no risk reporting means that there exists no current risks, however this would be naive and thus this channel is utilised regularly for monitoring. In terms of allocating ownership of risks to group members, we simply went through the list and if there was a member who said they were confident in managing such a risk then they'd become the owner.

# risk-reporting

Risk Assessment Table

ID	TYPE	DESCRIPTION	LIKELIHOOD	IMPACT	MITIGATION	OWNER
1	Technology	Bugs in required libraries	Low	Moderate	Researching good libraries before use, known bugs and workarounds	Daniel
2	Technology	Tools becoming unavailable	Low	High	Create backups of tools, research other tools to replace	Mitchell
3	People	Team member becomes unavailable	Low	Moderate	Have at least two people working on each part of the project to create redundancies	James
4	Technology	Missing logbook	Low	Moderate	Create several backups in different locations	Daniel
5	Product	Final product quality affected by poor quality of libraries used	Low	High	Vet each library and tool used to ensure good quality and reliability	Connor
6	Technology	Software used runs poorly on customers hardware	Moderate	High	Test product compatibility on range of hardware, make scalable where possible	Connor
7	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
8	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
9	People	Project progress suffering due to poor management	Moderate	High	Learning and practicing agile methodology, weekly meetings with all team members	Yi
10	Project	Requirements inflation before deadline	Low	Moderate	Keeping in constant contact with customer to keep up to date with possible changes	Mitchell
11	People	Different speed of working	Moderate	Low	Update the finished working and make plan each week	Yi
12	Project	Issues with specification/brief	Low	Moderate	Careful reading of brief and meetings with customer to	Connor

					clarify points/discuss possible additional requirements not specified in the brief	
13	Project	Slow progress due to poor productivity	Low	High	Weekly meetings to monitor progress, ensure constantly moving towards goals	Daniel
14	Project	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
15	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
16	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
17	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 code follows architecture documents	Connor
18	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
19	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

20	Project/ Business	Problems delivering project to customer	Low	Very high	Ensure reliable internet connectivity to upload finished project, all team members should have access to project in case of one member's internet being down	James
21	People	Lack of team management experience	Low	Low	Manage by one or two people in the group, and others can give some advice	Daniel