Risk Assessment and Mitigation 2

(Part of *Change2.pdf*)

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The big conundrum with doing a risk assessment is that there are some things that are very risky, however the chances of them happening are very small. For this reason we have decided to rate the risks using both frequency (likelihood) and risk. We hope that by doing this it will provide a bit of context as to how likely to occur the risks actually are.

As shown in the table below, we will rate each risk with a severity: Low, Moderate, and High. We have given each of these a definition:

Frequency (Likelihood)	**Consequences (Severity)**
L: The risk is rare, and most likely won't occur	L: The effects will be small, and unlikely to affect progress
M: The risk is known to happen, and may occur	M: The effects will be moderate, and could affect progress
H: The risk is common, and will occur at some point	H: The effects will be serious, and will effect or halt progress

We also need an overall risk factor, based on the frequency and consequences:

Frequency vs risk	Low	Moderate	High
Low	Low Risk	Low Risk	Moderate Risk
Moderate	Low Risk	Moderate Risk	High Risk
High	Moderate Risk	High Risk	High Risk

Throughout the project, we will monitor the risks and make sure we are following this assessment. We will review this document roughly halfway through the project in week 3, and discuss any changes that are required (if any).

ID	Type	Description	Likelihood	Impact	Mitigation	Owner
1	Technology	Bugs in required libraries	Low	Moderate	Researching good libraries before use, known bugs and workarounds	Adam
2	Technology	Tools becoming unavailable	Low	High	Create backups of works, research other tools to replace	Travis
3	People	Team member becomes unavailable	Low	Moderate	Have at least two people working on each part of the project to create redundancies	Bogdan

4	Technology	Missing logbook	Low	Moderate	Create several backups in different locations	Josh
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	Adam
6	Technology	Software used runs poorly on customers hardware	Moderate	High	Test product compatibility on range of hardware, make scalable where possible	Xiaoyu
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	Rob
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	Adam
9	People	Project progress suffering due to poor management	Moderate	High	Learning and practicing agile methodology, weekly meetings with all team members	Adam
10	Project	Requirements inflation before deadline	Low	Moderate	Keeping in constant contact with customer to keep up to date with possible changes	Rob
11	People	Different speed of working	Moderate	Low	Update the finished working and make plan each week	Xiaoyu

12	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	Travis
13	Project	Slow progress due to poor productivity	Low	High	Weekly meetings to monitor progress, ensure constantly moving towards goals	Adam
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	Bogdan
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	Josh
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	Josh
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	Josh
18	Technology	Loss of code or technical documents	Low	Very high	Use cloud services like Google Drive, Github to ensure everything is	Rob

					backed up and accessible to everyone, create offline backups as insurance.	
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 the team can work effectively online.	Travis
20	Project/ Business	Problems delivering project to customer	Low	Very high	Ensure reliable internet connectivity to upload finished projects, all team members should have access to the project in case of one member's internet being down.	Bogdan
21	People	Lack of team management experience	Low	Low	Managed by one or two people in the group, and others can give some advice.	Adam, Rob