Risk Assessment and Mitigation

Team 26 - Pirate Ducks

Team members:

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5a) Introduce and justify your risk format and level of detail

We have developed a risk assessment table to outline the different risks and extreme circumstances that may occur throughout the development of our project. Our table categorises the risks based on how they may affect our ability to complete the assessment. These are:

- Project - factors that will affect the timeline and ability to complete the project
- Product - factors that will affect the quality of our product
- Business - factors that will affect development of the product, such as obsolete technology or competition from other teams
- Requirement changes - effects from changes to the product brief during development

These factors allow us to consider various areas of the project which could go wrong and how any impacts could be mitigated. For each possible risk, we have considered the likelihood and severity of that risk occurring and then discussed how it can be mitigated. It is important to note that not every risk can be mitigated and that our table is not an exhaustive list. It is quite likely that things may happen during the project that we have not considered.

We have categorised the severity and likelihood of a risk occurring on the following scale:

- Low (L) (least likely to occur)
- Medium (M)
- High (H)
- Very High (VH) (most likely to occur)

This categorisation allows us to focus on and prepare for the most significant risks. For each risk we have discussed mitigations to ensure that if a risk does occur, its impacts are minimised. We have also given each risk an owner - this means that each risk owner should periodically review the risk during the project and ensure that it is still being managed effectively. Furthermore, if a specific risk does occur, then the owner of that risk is responsible for leading the response to mitigation of that risk. We have tried to distribute risk owners fairly, ensuring all team members are helping to manage potential issues during the project.

As this project is a relatively small project and non-critical, all our risks relate to the deliverability of the project and ability to complete the assessment objectives. Our project is very unlikely to cause any physical or mental harm. We believe that these sorts of risks are very low, so it did not seem sensible to include these types of risks in our table.

5b) Risk assessment table

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
1	Project	Team member becomes unavailable	H	H	The work should be given to someone else or redistributed across multiple team members. Ensure communication with the unavailable team member to keep them up-to-date.	James
2	Project	Tool unavailability - working from home technical issues	M	H	Ask other team members for help. Consider using Computer Science department labs if in York, or delegate work to someone else for a temporary period. Make sure all code is backed up to Github.	Charlie
3	Product	Flaky Libraries - libGDX not working as intended	M	VH	Find a workaround by asking other team members or searching online. Consider the necessity of the feature and whether it is definitely needed, if not we may have to consider not including the feature. If necessary, report bugs to library developers. Only use a different library as a last resort.	Marc
4	Product	Tool bugs - problems with Github	L	M	Ask other team members for help using Github. Try and always keep an up to date local copy and ensure all changes are committed.	Rob

5	Requirement change	Stakeholder changes requirements during development	H	H	Keep stakeholders involved in the process to reduce the likelihood of changes being required. If changes are required, consult the whole team to discuss and determine a course of action to implement the changes	Alice
6	Project	Stakeholder becomes unavailable	L	H	Ensure no single point of contact. Get in contact with other stakeholders.	Dan
7	Product	Stakeholder does not enjoy product	L	H	Keep stakeholder involved in process, ask for reviews. Make changes to the product to meet stakeholder feedback	Alice
8	Business	Competition - our product is not selected by another team to be continued for assessment two	M	M	Review the project, gain feedback from other teams to see what went wrong. Do not focus too much on this, as we will need to focus on assessment two.	Marc
9	Business	Obsolete technology - libGDX is discontinued	L	H	Have local versions of libGDX downloaded. Consider alternative libraries and feasibility of switching or just continuing with existing version of LibGDX.	James
10	Project	Poor scheduling - we are late on the project	M	H	Check progress every week. If we do get behind, put in extra hours to work on project. Distribute work to areas where people are most competent to help timely completion. Ensure a single person is not overloaded with work and assist others if they are stuck.	Charlie

11	Project	We cannot figure how to make art	H	H	Find clip-art online that has a suitable license	Rob
12	Product	End users do not find the user interface intuitive or find it hard to use	M	H	Involve stakeholders to gain feedback. Listen to stakeholders and redevelop based on feedback.	Dan
13	Project	Requirements not met	H	H	Spend extra time developing to ensure all/most requirements are implemented.	Charlie
14	Product	The game does not run smoothly on university computers	L	H	Continuous testing throughout the project. Investigate performance issues, discuss with the team and research if necessary. Consider restructuring code or using alternative methods.	Dan
15	Product	The difficulty level of the game is poor - too hard or too easy	M	M	Get feedback from stakeholders about changes to the game concerning the difficulty level and consider implementing them.	James