

Risk Assessment and Mitigation

Group 27 - WaddleWare Studios

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Introduction

The risk management process followed by our team is a structured approach to identify, assess and mitigate risks that could potentially impact our projects objectives. This approach ensures we address any potential issues before they become significant problems which overall reduces the likelihood of project delays and failure to meet the requirements/quality standards.

We started by thinking of potential risks across various aspects of the project. These were product and project related risks. This approach ensures us that no potential risk is overlooked.

For each risk we identified, we looked at the likelihood they would happen and ranked them on a scale of low to high. From there we also looked at the severity of the risks and ranked them using the same scale. The risks were prioritised meaning the risks that were given a high severity were of high priority. This focused our mitigation to the risks that pose the biggest threat to the project's success, ensuring efficient use of resources by addressing the most critical risks first. This was important and ensures us to know what to look out for and how drastic the consequences could be if a risk takes place.

For every risk we looked at how to mitigate them. This includes strategies to reduce the likelihood of the risk happening or could lessen the impact on the project if a risk occurs. Overall, by planning mitigation strategies, this can help to minimise potential disruptions to the project, and can reduce the likelihood and severity of these risks.

We then continuously monitor the project of new risks that can appear and the effectiveness of our mitigation strategies. This allows us to adjust our approach whenever necessary to ensure the project remains on track despite any risks we might encounter. By creating a risk status, it shows what we have done to ensure we didn't encounter any risks/minimising the amount of risks.

Our team's risk register is a spreadsheet which captures all identified risks, the likelihood, severity and mitigation plans in a structured format. This format ensures us that all relevant information is readily accessible which overall facilitates effective risk management throughout the lifecycle of the project.

ID	Type	Description	Likelihood	Severity	Mitigation	Owner	Risk Status
R1	Product	Libraries are defective/faulty	M	M	Check that the libraries work prior to use, have a backup	Malik & Mischa	Prior to starting, check made. Backups of the code at regular intervals
R2	Project	Time- tasks take longer than expected to complete	M	M	Overestimate time needed to complete a task to give more time to do it or use gantt charts	James S	Gantt charts shows we have enough time to complete each task
R3	Product	Technical issues eg. bugs	H	L	Test the game frequently, documentation	Malik & Mischa	Before each new commit is made a small test is run, docstrings for each method written
R4	Project	Losing a team member	L	L	Having at least 2 people on every section	James S	More than one person is working on each section
R5	Product	System Compatibility Issues	L	H	Check before starting to code the specifications	Malik & Mischa	Used Gradle, deploys to all systems required (windows+arch linux with X11 tested)
R6	Project	Poor communication among team	H	M	Have regular meetings with the team	Mischa	Weekly meetings minimum
R7	Project	Not sufficient communication with stakeholders	L	H	Ensure at least one requirements elicitation interview is had	Mischa	Meeting with customer had on the 27th feb
R8	Project	Inadequate requirements gathering	M	H	Review Requirements before continuing	Hannah & Fran	In a meeting, everyone collaborated on the finished requirements document
R9	Project	Lack of planning	M	M	Ensure a plan is made before starting each mini-project	James S	For each meeting, a small plan is made
R10	Product	Data loss/ corruption of some	L	H	Back up code regularly	Malik & Mischa	Is saved to a different branch in Github and created local backups

		of the source code					
R11	Product	Over Engineering/ attempting to do too much	L	M	Have a base level of what is required and fulfil that, then look to do more if possible	Malik & Mischa	All functions are completed before starting the appearances are coded
R12	Project	Poor documentation	M	L	Ensure everything is documented and easy to understand	Mischa	Javadoc used to explain code, all documents stored where everyone can access
R13	Product	Ambiguity on requirements	M	M	If the customer is ambiguous, ask follow up questions, otherwise make a decision as a team	Hannah & Fran	Meeting with customer had on 27th Feb
R14	Project	Team Burnout	M	M	Split the workload evenly and equally	Fran	As a team assigned workloads, ensuring even split of work
R15	Project	Dependence on one individual	L	H	Ensure everyone is doing a role that has been assigned to them	Fran	Gantt chart shows what everyone is working on, for that week
R16	Project	Insufficient detail in architecture	M	M	Ensure that the diagrams are detailed enough for all to understand	Amanda & James K	In a meeting, everyone looked at the finished diagrams to ensure understanding
R17	Project	Physical Resources could be lost	H	M	Using online resources and share them with everyone	Amanda & James K	Backups made
R18	Project	Failure to foresee all the risks	H	L	Attempting as much as possible to try and foresee issues	Hannah & Fran	As a team went through to try and think of other risks
R19	Product	Not meeting enough of the product requirements	M	H	When coding the game, focus on ensuring that the requirements are completed first	Malik	The requirements were met before further development
R20	Product	The game not complying with regulations	L	H	Ensuring that at regular intervals checks are done to ensure everything follows relevant regulations	Malik	Multiple checks made when implementing things that may cause issues eg.asset packs

R21	Project	The game requirements are misunderstood	M	H	Making sure all our questions are answered and clarified in the customer meeting	Mischa	Everyone is agreed on the requirements after the meeting, no follow up questions needed
R22	Product	The deliverables are corrupted	L	H	Ensure multiple copies of deliverables are backed-up and stored on different machines.	Fran	Everyone made copies of deliverables on their own devices.
R23	Product	The website does not function	L	H	Test the website multiple times and check that each required function is there. e.g. links & photos	Mischa	The website has been tested on multiple different browsers
R24	Project	Group member(s) sabotages the work done	L	H	Working collaboratively in a friendly manner to dispel the potential motivation of a saboteur, having a backup	Fran	In regular team meeting, ensuring that everyone is happy with the project