

## **Risk Assessment and Mitigation**

Cohort 1, Group 6 - M6

### **Members:**

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## Risk Identification

Collectively, through discussions and brainstorming sessions the team identified potential risks. The assessment brief and client preferences specified in the interview served as a baseline to ensure that all aspects of development were considered. The confirmed risks were then categorised into technical and project related groups in order to streamline their management.

## Risk analysis

Each risk was evaluated and assigned a likelihood and severity rating based on collective team judgment. This process is going to significantly assist in controlling potential issues that will have a great effect on the project if not accounted for.

Likelihood measurement shows how likely is a specific risk to become an issue.

- Low - Unlikely to happen (0% - 40% chance)
- Moderate - Could possibly happen (41% - 60% chance)
- High - Very likely to happen (61% - 90% chance)

Severity indicates the impact a risk could have on the project if it occurs.

- Low - Minor impact that is easily managed
- Moderate - Noticeable impact requiring attention
- High - Major impact and potential disruption beyond original scope

Then the following Risk Severity Matrix was created to color code the risks making them more readable. [1]

Likelihood/Severity	High Severity	Moderate Severity	Low Severity
High Likelihood			
Moderate Likelihood			
Low Likelihood			

## Risk planning

Each risk was followed up with analyses focusing on how an issue could be completely avoided or at least minimised. The team implemented a planning system which helped arrange deadlines and track progress in order to minimise risks across the board.

Additional brainstorming sessions were held to develop specific solutions to problems in case of minimisation strategies failing. Team members responsible for the discussed aspects of the project were then assigned as the owners of the risk.

## Risk monitoring

To provide structure and consistency to risk management, a register containing the fields described below were constructed.

- ID - Unique identifier of the risk (P stands for project; T stands for technical; G stands for the product(game); E stands for estimation)
- Description - What the risk is
- Likelihood - How likely the risk is to happen
- Severity - How big of an impact the risk might have on the project
- Mitigation/Avoidance - How to avoid or minimise the risk
- Owner - Team member responsible for the mitigation strategy execution and monitoring of the risk

The same version of the table was also extended outside of the document with dates and progress reports to assist owners in managing risks.

ID	Description	Likelihood	Severity	Mitigation Avoidance	Owner
TP1	Team members getting sick, falling behind, struggling with the task or leaving.	Moderate	Moderate	Have at least 2 people working on all aspects of the project and regularly communicate with the team members.	Mir
T1	Not accurately following the requirements and/or having project inconsistencies.	Low	Moderate	Communication between team members, have a detailed set of requirements available and communicate with the client to discuss iterations of the project to maintain a clear scope of the game.	Agata
P1	Project website not up to date if changes are made to the project	Low	Low	Performing a backward data continuity check within the website and regular progress report checks on any new information requiring uploading links to the website.	Sonia
P2	Lost/forgotten documentation and/or losing track of documents related to the progress of the project	Low	Moderate	Perform a deep inspection of final versions of deliverables and any additional required documents and keep an organised file structure with support for previous versions.	Agata
T2	Tool/Asset availability (3rd party assets no longer supported, copyright issues, problems embedding incompatible features, etc.)	Low	Moderate	Check each time a new asset or tool is used that it is suitable to use in the game.	Adam
T3	Bugs/Errors in the game	Moderate	Moderate	Regularly test the game during the development and evaluation process and check for these.	Jazz
TP2	Mistakes in data interpretation between	Moderate	Moderate	Ensure consistent and clear communication between all team	Esther

	teams within the group			members. All documentation must be accessible to all members of the team to allow for more feedback.	
T4	Inconsistency in game versions on GitHub resulting in unaccounted-for branches	Low	Low	All new versions of the code must be announced and described in detail before being uploaded to GitHub.	Adam
TP3	Not meeting the deadlines	Low	Moderate	Regular progress checks through google sheets containing additional task and deadline information	Mir
P3	Misunderstandings regarding documentation formatting	Low	Low	Performing initial visualisation of the deliverable's format and checking final versions thoroughly to ensure structural integrity and requirements being met.	Agata
TP4	Specifications and requirements changes	Moderate	Moderate	Communicate quickly with the team in case of changes and update the requirements, risk assessment, architecture and management plan accordingly.	Agata
T5	Game does not work on players hardware	Low	Moderate	Test the game on multiple systems during the development phase.	Sonia
G1	The game is too difficult or easy for individuals with varying levels of gaming experience, therefore reducing the marketability and accessibility	Low	Low	During the user evaluation and throughout the development phase check that the game difficulty is the expected one for a beginner friendly game and that the instructions provided are clear and simple.	Jazz
G2	The game does not play smoothly due to poor rendering, event handling or collision detection	Low	Moderate	During the user evaluation and throughout the development phase check that event handling, collision detection and rendering are correctly and effectively working.	Sonia
G3	The game is not enjoyable for the target audience therefore reducing its marketability	Low	Low	During the user evaluation and throughout the development phase check that the game is enjoyable and challenging but not overly frustrating by ensuring that the theme and tone of the game remains humoristic and family friendly.	Azib
E1	Learning of technology required to complete the game is delaying the project progress	Moderate	Low	Ensure consistent and clear communication between all team members and that everyone in the team has early on on the project a clear understanding of the knowledge, technology and tools required for its successful completion.	Esther
E2	Understanding of game code, architecture and	Moderate	Low	Ensure consistent and clear communication between all team members	Azib

	derivables of the takeover project is impacting the project progress			and that everyone in the team has early on on the project a clear understanding of it.	
E3	The game testing takes more time than expected which causes a delay in the progress of the project.	Moderate	Moderate	Ensure consistent and clear communication between all team members and that everyone involved in the testing has a good understanding of the game system and of the time required to complete the testing by the deadline	Sonia

## References

[1] Vicente, V. (2025) Risk Assessment Matrix: Overview and Guide, AuditBoard,  
<https://auditboard.com/blog/what-is-a-risk-assessment-matrix>.