Risk Assessment and Mitigation

Cohort 1, group 9:
Chris Sewell, Fedor Kurochkin, Matt Durham, Max Peterson, Oladapo Olaniran, Wojtek Tomaszewski, Yuqi Fu.

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

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 aspect 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 was constructed.

- ID - Unique identifier of the risk (P stands for project; T stands for technical)
- 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
- Monitoring - How to monitor 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	Monitoring	Owner
TP1	Team members getting sick, falling behind or struggling with the task	**High**	**High**	Have at least 2 people working on all aspects of the project	Communicate with the team and see if any team member is expected to be unavailable	Everyone
T1	Not accurately following the game/client requirements	**Low**	**High**	Communication between team members and clear representation of client preferences and requirements	Communicate with the client to discuss iterations of the project to maintain a clear scope of the game	Chris & Fedor
P1	Project website not up to date if changes are made to the project	**Moderate**	**Moderate**	Author of the deliverable performing a backward data continuity check within the website	Regular progress report checks on any new information requiring links upload to the website	Max
P2	Lost/forgotten documentation	**Moderate**	**High**	Potential restoration of deleted documents or reversion to previous drafts	Deep inspection of final versions of deliverables and any additional required documents	Oladapo

T2	Tool/Asset availability (3rd party assets no longer supported, copyright issues, problems embedding incompatible features etc)	**Low**	**Moderate**	Use Generative AI to produce copyright free assets and use the most popular and best kept up to date tools	Check each time a new asset or tool is used that it is suitable for use in the game	Mat
T3	Bugs/Errors in the Game	**High**	**Moderate**	Regularly test the game during the development process and check for these bugs	Potentially have a person play the game in search of its limitations and potential bugs	Wojciech
TP2	Mistakes in data interpretation between teams within the group	**Moderate**	**Moderate**	Ensure consistent and clear communication between all team members	All documentation must be accessible to all members of the team to allow for more feedback	Everyone
T4	Inconsistency in game versions on GitHub resulting in unaccounted-for branches	**Moderate**	**High**	If necessary, reverting to older versions. Otherwise merging the branches into the single newest version	All new versions of the code must be announced and described in detail before being uploaded to GitHub	Mat & Max

TP3	Not meeting the deadlines therefore delaying progress	**Moderate**	**High**	Altering initial requirements or rearranging deadlines in a way which allows for more time being spent on a task	Regular progress checks through google sheets containing additional task and deadline information	Oladapo
TP4	Losing track of documents related to the progress of the project	**Low**	**Low**	Keep an organised file structure with support for previous versions	Performing checks on file's locations and versions with additional draft documents included in the same directory	Wojciech
T5	Misunderstandings regarding game mechanics	**Low**	**Moderate**	Performing a large volume of discussions focused on understanding the task and planning the solution ahead of time	Perform checks during various progress milestones to ensure the direction of development is going according to plan	Mat & Max
P3	Misunderstandings regarding documentation formatting	**Moderate**	**Moderate**	Performing initial visualisation of the deliverable's format	Swapping and checking final versions thoroughly to ensure structural integrity and requirements being met	Everyone