

# Risk Assessment and Mitigation

## Cohort 1 Group 10

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## **Risk Management Process**

The team's approach to eliciting requirements consisted of a 4-step iterative process:

### Step 1: Risk Identification

In the first step of the risk management process, the team systematically identified threats and risks to the project timeline and the product itself. These were identified through brainstorming sessions, personal judgement, and SWOT analysis. By combining the knowledge of everyone on the team, a comprehensive list could be created. The risks covered a wide range of problems, such as technological, project and product-related, as well as security.

### Step 2: Risk Assessment

Once the risks were identified, it was possible to assess them in detail. This involved establishing each risks' type, likelihood of occurrence, impact on the project, and owners as well as writing a brief description. These factors were decided based on expert judgement and the research that the owners did on the subject area. By quantifying the likelihood and impact, the team (especially the owners) could be more aware of potential threats and be mindful to avoid them, or be able to pick the path with least harm to the project.

### Step 3: Risk Treatment

In this step the team developed strategies to address the identified risks. This involved appropriate measures to mitigate risks from occurring as well as prioritising risks with high likelihood and impact over others. Risks deemed less severe were treated with less urgency. By establishing ownership of risks team members knew what they were responsible for and could take steps to mitigate specific risks through their work.

### Step 4: Risk Monitoring

The final step of the process involved continuous monitoring and tracking of the identified risks, the people in charge of specific areas of the project (the owners of various risks) continuously paid attention to potential pitfalls and mitigated risks. The risk register is also a live document in the sense that it is continuously updated to changing and unforeseen circumstances. The team's clear communication, especially within the task divisions is an integral part of maintaining this iterative process and ensuring the project remains resilient to uncertainties.

The above approach enabled all team members to proactively take ownership of risks and be aware of them from the very beginning of the development process. The risks identified by team members were compiled into the Risk Register, a live document that was modified as the project progressed.

Risk Register:

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R1	Technology	Technical Challenges with libGDX	Medium	Medium	Early prototyping and testing of all features	Ben/Matthew
R2	Product	Licence Issues on Assets	High	High	Find open licence assets	Ben/Matthew
R3	Project	Cooperation and collaboration issues	Medium	High	Use planned methodology as a guideline for team interaction	Everyone
R4	Project	Development Delays	Medium	Medium	Schedule regular team meetings to make sure everyone is on track	Ben/Matthew
R5	Project	Inefficient use of resources	Low	Medium	Regularly review project timeline Agile project management	Adeola/Riad
R6	Project	Conflicts and errors due to issues with version control	Low	High	Implement version control best practices	Ben/Matthew/Cai

R7	Project	Scope Creep	Medium	High	Refer to requirements for all necessary information on features	Simon
R8	Product	Incompatibility with various hardware	Medium	High	Test on a wide variety of hardware	Cai/Ben/Matthew
R9	Technology	Difficulty in scaling the game	Medium	Medium	Design the game with scalability in mind	Ben/Matthew
R10	Product	Poor User Experience Design	Medium	High	Engage in continuous feedback from users and stakeholders	Simon/Adiola/Riad
R11	Product	Overcomplexity leading to user frustration	High	High	Refer to requirements and stakeholders to identify key features	Simon/Adiola/Riad