Risk Assessment and Mitigation

Windows 007
Cohort 3 Team 7

Stephen Lavender
Sam Leach
Daron Lepejian
Ding Lim
Hasan Majid
Joshau Marshall-Law

0.1 Risk Assessment

0.1.1 Risk Identification

The group assigned to risk assessment talked with each department of the project to enquire about potential risks to each section and then risks dependent on information from one group to another. Finally, we looked at the project as a whole and any general risks.
Identifying risks at this stage of the project allows us to anticipate issues and minimise their impact on the completion of the project. Consulting departmentally allowed for multiple views and provided us with a range of issues.

0.1.2 Risk Analysis

This involved looking at the likelihood and severity of the risk occurring. The risks were then given a likelihood (low to high) and a severity (low to high).
By systematically assessing impact and likelihood, the team could prioritise risks, focusing resources on those with the greatest potential to disrupt the project.

0.1.3 Risk Mitigation

We developed specific steps to minimise the severity of each identified risk. For example, to address technical risks, we implemented contingency plans, such as assigning tasks to pairs of team members. For scheduling risks, we included time buffers in the project timeline to account for potential delays.
Mitigation actions are essential to reduce exposure and severity of risks and provide a fallback should a risk occur.

0.1.4 Monitoring and Review

The risk register was reviewed during meetings to update the likelihood and severity of risks as the project moves forwards. We also continued to discuss the mitigation plans as there may be better ways to manage risks as the project develops.
Active monitoring of risks allows the team to respond to risks quickly and effectively so project development remains on track.

0.2 Risk Register Structure

- ID
- Type of Risk
- Description
- Likelihood
- Severity
- Mitigation
- Owner

0.3 Risk Register

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
1	Resource	Web designer becomes unavailable	Low	Medium	Having multiple web designers	Stephen
2	Technical	Library has hard to interpret functions	High	Low	Having the docs with general purpose saved for readability	Architecture team
3	Product Scope	Feature Creep, Uncontrolled expansion of features which can lead to delays	Medium	High	Define clear requirements, review progress and limit new features	Whole team
4	Code Quality	Accumulated shortcuts in code which can cause long term stability and performance issues	High	Medium	Regularly peer review the code as well as use automated tests for the code	Implementation team
5	Technical	Problems when integrating different systems such as game engine, third party libraries, etc	High	Medium	Choose compatible tools, perform regular integration testing	Implementation team
6	Technical	Losing data due to data or code being lost or corrupted	Low	High	Make regular backups	Whole Team
7	Scheduling	Unrealistic Deadlines causing pressure to release when not ready risking quality and stability	Medium	High	Set realistic time goals as well as keeping clear communication between team members to ensure deadlines are reasonable	Whole Team
8	Legality	Legal compliance failing to comply with copyright laws	Low	High	Check that the assets used have an open source licence	Whole Team
9	Documentation	Lack of documentation	Medium	Medium	Ensure code is following documentation requirements	Whole Team
10	Usability	Charts are illegible	Low	Medium	Have Charts checked before completion to ensure simplicity and readability	Architecture team
11	Resource	Team members absence causing certain tasks not to be completed	High	High	Set clear expectations for team members as well as have clear and open communication	Whole Team

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
12	Human Resources	Lack of communication within the group which causes confusion and unreliability	Medium	High	Schedule regular meetings and check in on team members who aren't communicating	Whole Team
13	Human Resources	Unclear requirements which can lead to misunderstanding and having to redo work	Medium	Medium	Gather detailed requirements from the customer and refine them	Whole Team
14	Technical	Inadequate testing which can lead to bugs in the final product	Medium	High	Allocate time for extensive testing of the final product	Architecture team
15	Human Resources	Team members not being up to date on the current information about the project slowing progress down	High	Medium	Allocate buffer time for progress so group members can keep up with their work	Whole Team
16	Technical	Lack of access to tools and or software leading to delays	Low	High	Ensure all required tools and software are available to all team members	Whole Team
17	Human Resources	Skill gaps between team members causing delays in progress such as not being competent in software used	Low	Medium	Ensure all team members are familiar with the software and tools used	Whole Team
18	Documentation	Inconsistent Coding Standards making it difficult for the team to maintain and contribute to the code	High	Low	Decide on a clear and consistent coding style for the team to follow	Architecture team
19	Human Resources	Team members leaving disrupting the project	Low	High	Create thorough documentation to ensure workload can be picked up by other team members	Whole Team