Risk Assessment and Mitigation

Group 4 - Cohort 2

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Risk Management Process

Preparing for potential risks is crucial in software engineering projects. That's why we have created a risk management process to identify risks, analyse their impacts and find ways to either minimise or avoid them.

For risk identification, we have added the common risks that usually occur based on our own experience as team members from previous projects. One example is the sudden unavailability of some members which can cause a delay. Additionally, we have researched potential risks that usually occur on software engineering projects and gathered information from Google.

In our risk register, we have analysed the impact of each risk by evaluating the likelihood of the risk occurring and its severity if it does occur. This analysis gives us a clear understanding of the potential risks we need to address and help us prioritise them. We started handling risks that have a high likelihood and high severity followed by medium likelihood and high severity till we finally address risks that are low likelihood and low severity.

After identifying and analysing the potential risks, we have started preparing plans on how to mitigate these risks either based on our past experience or research the standard methods of handling similar situations on the internet. When drawing plans, we have tried to find ways to avoid these risks completely, but if that wasn't possible, we'd try to minimise the impact and reduce the likelihood of such risk occurring.

We have assigned an owner for each potential risk to review their likelihood and impact regularly. In our meetings, the owner must report whether the initial assessment has changed or not.

Risk Register

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
r1	Project	Unintentionally overwriting the main git branch	M	H	Show the team members how to use Git especially branches and assign the task of merging branches to one member.	Theo
r2	Project	The Git Repository get deleted by a team member accidentally	L	H	Keep a local backup of the project	Mohamed
r3	Project	The lead developer becomes unavailable	M	M	Have at least 2 developers working on the game	Matias
r4	Project	Too many ideas to implement as the deadline approaches	M	M	Focus on implementing the main requirements first and then add extra features if we have enough time	Theo
r5	Project	Limited experience with Game Development	H	M	Watch a YouTube Tutorial on LibGDX and read the documentation	Mohamed
r6	Project	Pushing low quality code by an inexperienced member which could break the game	M	M	Create a new branch for each task and merge the branch only after it was reviewed by the lead programmer.	Theo
r7	Project	A team member having a hard time finishing their tasks causing a delay	H	M	Schedule weekly meetups to check the team progress and help any member if needed with their tasks.	Juliet

r8	Product	Other teams having a hard time understanding our codebase	M	M	Prepare a clear documentation for the project and add comments when necessary	Juliet
r9	Business	The use of copyrighted assets and music	M	H	Review all the assets and music used in the project and confirm that their licences allow our use of them	Nora
r10	Project	Poor communication between team leading to misunderstandings	H	H	Create a whatsapp group chat to discuss ideas and write appropriate notes on GitHub when making changes	Juliet/Theo
r11	Project	Team member burnout due to heavy workload	M	H	Evenly distribute and document workload	Katie
r12	Business	Stakeholder requirements exceed project capabilities	M	H	Set clear and realistic requirements, additionally, meeting with the stakeholder	Juliet
r13	Schedule	Delays due to unseen reasons	M	M	Break tasks into smaller tasks and keep these all tracked	Katie