Risk assessment and mitigation

Group 17

Team Loading

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Risk assessment and mitigation 5. a)

Risk management process

Our risk manage process involved 5 main procedures:

1. Risk identification
2. Risk analysis
3. Risk planning
4. Risk register
5. Risk monitoring

To identify risks, the team brainstormed ideas for anything that could harm the project. To aid with this, we categorised risks together, such as: technology, people, requirements. ENG1 is a small project, hence risks were not considered which had very minor probability and consequences.

We then analysed our list of risks. Collectively, we assigned a likelihood and severity rating to each risk, measured by low, medium and high. This was important to identify more serious risks which could catastrophically harm the project.

Risk planning involved 3 key areas:

- Avoidance
    - ensuring a low 'bus factor' by having multiple team members be responsible for a piece of work.
- Mitigation
    - Involved close team working and avoiding redundancy by storing files on google drive.
- Contingency plans
    - saving previous code/drafts to fall back on if needed.

We then made the risk register, which is summarised under 'Risk register formatting'.

Risk monitoring then took place regularly throughout until the end of the project. Each risk was assigned ownership to the relevant team members, who regularly re-assessed their likelihood and severity. At least once a week during a meeting, the respective risk owners would inform the rest of the team on the risk status, as well as update the risk register if necessary. This ensured that each risk was regularly monitored while keeping the entire team informed.

Risk register formatting

We tabulated the risks and related information, with the columns: ID, Type, Description, Likelihood, Severity, Mitigation, Owner. This was suitable because it clearly presents the information extracted from the risk management process, and requires very little explanation for new teams taking ownership of the risk register. The simpleness of risk presentation also reflects that ENG1 is a small project, developing non-critical software.

Risk assessment and mitigation 5. b)

Risk Register

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R1	Project	Time zone difference.	M	H	Plan meetings more carefully to take into account time differences	Ishrit
R2	Project	Reliance on Discord creates risk if Discord goes down.	L	M	Use email instead	Everyone
R3	Project	Absence because any n reason	H	M	Post a meeting summary to help members catch up from missed meeting	Everyone
R4	Product and project	Requirements delay	L	H	Review requirements to mitigate errors.	Joel, Ishrit, Joshua
R5	Product	Merge conflicts	M	M	Communicate what is being worked on, if merge conflicts happen resolve properly.	Jake, Charlie, Hari
R6	Project	High workload	M	M-H	Manage time effectively, communic	Everyone

					ate with the team if a member is struggling with workload.	
R7	Product and project - Game development experience	Limited Game Development experience	H	M	Take the time learning libgdx, or carry the weight in other areas such as documentation	Charlie, Josh, Joel, Ishrit, Hari
R8	Product and project	Burnout	H	M	Distribute workload fairly, ensure all team members are happy with their current workload.	Everyone
R9	Project	Schedules not lining up when planning meetings.	L	L	Communicate and plan meetings early to ensure a suitable meeting time can be arranged.	Everyone
R10	Product -	Difference in code writing style reduces consistency.	H	L	Agree beforehand a mutually preferred coding style.	Everyone
R11	Product -	Code redundancy,	M	L	Check which functions	Jake, Charlie

		functions not being used.			are being used and which aren't, removing the redundant ones	
R12	Product	Incompatibility with certain devices/platforms	M	M	Conduct tests on multiple devices/platforms	Everyone
R13	Project	Lack of communication within the team	H	M	Establish regular team meetings and open communication channels.	Everyone
R14	Product	Unforeseen bugs in third-party assets	M	M	Regularly check for updates and test third-party assets for integrating them	Everyone
R15	Product and project	Lack of testing and QA because of time constraints	M	H	Implement a thorough testing and QA process for both the product and project.	Everyone
R16	Project	Limited team size	H	M	Allocate tasks and responsibilities effectively, ensure efficiency.	Everyone