Engineering 1 Group Assessment 2
Risk Assessment and Mitigation
Cohort 3 Group 23

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Risk Assessment and Mitigation

Our risk management process began with brainstorming potential risks that could affect our project. We primarily focused on project and product risks and only included one business risk. As the project took place in an academic context, we judged the financial and organisational risks that could affect a business software development project to be unlikely enough that they were not worth including in the risk register.

We have classified the potential risks using a Low-Moderate-High scale system. We decided to use this system because we realised that it would be the easiest and clearest way for us to separate the risks into groups.

We have provided a short description of each risk in order to easily evaluate the level of the risk - whether it is Low-Moderate-High. As well as a short description, we also provided some mitigation measures describing what people would need to do in case any of the risks occur and how they can be sorted out.

We assigned each risk to an owner whose role it was to mitigate the potential consequences of the risk as well as to reduce the likelihood of them occurring. When relevant, we discussed risks in our team meetings. For example, we frequently discussed keeping redundant backups of information and aimed to keep a low “bus factor” when assigning tasks.

Risks Table

ID	Type	Description	Likelihood	Severity	Mitigation	Owner(s)
R_BUS	Project	Team member long-term sick or unavailable	L	H	Clear documentation and communication. Use Git and Google Drive to ensure files are accessible. Coding standards to ensure portability.	Josh
R_TOOL	Project	Development tool becomes unavailable	L	H	Use of mainstream tools, e.g. libGDX, Eclipse. Local installation of tools in case online sources are unavailable.	Seif
R_ILLNESS	Project	Team member misses several meetings due to illness	H	M	Plan around deadlines to avoid periods of crunch caused by staffing loss. Cloud file and code storage. Clear internal documentation. Coding standards to ensure portability.	Thomas
R_UNSTABLE_LIBRARY	Product	Unstable game due to bugs in upstream library	L	M	Use popular libraries with developer teams who issue frequent updates.	Harry
R_UNSTABLE_GAME	Product	Unstable game due to programming errors	H	M	Read documentation for implemented libraries. Follow programming conventions. Code review and automated tests to catch errors.	Tikhon
R_SUS	Project	Data loss due to malicious actors or mistakes	L	H	Backups on GitHub and Google Drive. Frequent git commits. Developing on a different branch to main to allow for backups.	Josh

R_PROD	Project	Project is not complete and up to standard by the deadline	L	H	Frequent checks on which tasks have and haven't been completed by their particular deadlines	Seif
R_DEPENDENCY	Project	A critical task that many tasks are dependent on is held up, halting progress	L	H	Effective planning to ensure that critical tasks are prioritised and completed	Harry
R_INTERCHANGE	Project	When problems arise, there may be different understandings and ideas, resulting in differences	M	M	Discuss together and combine everyone's views and opinions to finally come up with an answer that everyone agrees on	Thomas
R_UNIVERSITY	Business	Issue with the university means we are unable to get further customer feedback from the lecturers	L	H	Ask an extensive list of questions in initial customer meetings. Document all our decisions in case we are unable to contact lecturers.	Sebastian
R_TIME	Project	Team may run out of time to implement and document new changed before the deadline	M	H	Organise and plan tasks evenly between team members in order to get all work completed before deadlines	Seif