

## Explanation of table columns

- **Risk** - A brief description of the risk
- **P** - Probability of risk occurrence; rated from 1 (very unlikely) to 5 (almost certain)
- **S** - Severity of risk occurrence in relation to project; rated from 1 (low impact) to 5 (catastrophic)
- **RE** - Overall risk value (Risk Exposure) where  $RE = P \times S$
- **Mitigation** - Strategy to avoid or reduce the effect of the risk

# 1 Project Risks

Risk	P	S	RE	Mitigation
Loss of team member (e.g. going off sick etc.)	1	3	6	Drop some low priority features to reduce workload and allow focusing on needed features. Use of Git allows us to continue their work via branches.
Loss of project data	2	5	10	Use of GitLab to host data; upon loss of data, team can pull from the repository.
Low or no contact from supervisor during a sprint	2	3	6	Use of Discord to communicate easily and quickly with the supervisor as well as the ability to set up quick and easy meetings during sprints.
Loss of sprint leader	1	3	6	Choose two leaders for each sprint so that there is probably at least one sprint leader.
Program component takes longer than expected to implement	5	2	10	Drop some lower priority user stories for that sprint and/or have extra team members assist.
Library packages/API may be unfamiliar	2	2	4	Leave time to brush up on the library modules before getting started on the code. Working in pairs/teams for sections will help mitigate this, as team members can help teach each other.
Product develops hard to solve bugs that will take extra time/effort to debug	3	2	6	Leave extra time in the schedule for debugging to ensure this is accommodated. Otherwise, low priority user stories can be dropped or user stories can be pushed to the next increment.

## 2 Product Risks

Risk	P	S	RE	Mitigation
Feature does not meet client's expectations	3	2	6	Leave time in each sprint plan to account for time needed to rectify issues with the components from the last sprint.
There is a change in requirements	3	3	9	Address the requirements change in the review meeting with the client and edit the user stories to match. These can then be planned into the next or future increments.
The target devices become incompatible via update, change in client device etc.	1	5	5	Use of Java means that the program will run on any machine that can run Java. Extremely unlikely that a machine can't run the Java runtime.

## 3 Business Risks

Risk	P	S	RE	Mitigation
COVID restrictions become stronger and the team has to move online	1	2	2	Use of Discord and other online services will allow flexibility with regards to social distancing.
Change of supervisor/client; new supervisor/client may prioritise different aspects of the project.	1	3	3	Communicate/meet with new supervisor/client before next review session to re-prioritise user stories in that sprint as well as what they expect.