

# Engineering 1

## Group Assessment 1

### Risk Assessment and Mitigation Document

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# Introduction to Risk Format and Level of Detail

The Low-Moderate-High scale is a simple and clear format for presenting risks applying to a small-scale project such as ours. For both the severity and likelihood of a risk, we have used this system since it is easy to understand and colour coded for even greater clarity.

We have classified each of the risks as one of three categories: product (regarding quality/completeness of the game), project (regarding the project resources and schedule) and business (regarding the organisation procuring/developing the software). These types were inspired by research into risk types in software engineering.

In terms of the level of detail, we have provided a coherent description of each risk which sets out what it entails and how it would affect the project and team, as well as how to mitigate it in the event of its occurrence.

We have given each risk an owner as recommended and a backup owner as this was a simple way of reducing the chance of a risk resulting in a problem.

# Risks Table

| Risks          |                 |   |            |          |  |         |              |
|----------------|-----------------|---|------------|----------|--|---------|--------------|
| ID             | Type            | Description   | Likelihood | Severity | Mitigation   | Owner   | Backup Owner |
| R_MIA          | Project         | Team member unavailable for remainder of project                          | L          | H        | Ensure knowledge and skills are shared between team members, and form subteams to work on tasks  | Umer    | Richard      |
| R_GITHUB       | Project         | Github server goes down so we cannot access the repository.               | L          | H        | Back up files in local repositories  | Olly    | Joe          |
| R_REQUIREMENTS | Project/Product | Errors or changes in user requirements                                    | L          | H        | Use agile methods and frequently review requirements and how we are meeting them, meet with client often   | Will    | James        |
| R_PRODUCTIVITY | Project/Product | Overall productivity affected by external factors e.g. COVID-19 situation | M          | M        | Make sure work is spread evenly and work is done in teams or subteams with support on tasks offered from all team members and set achievable, sustainable timeframes | Olly    | Will         |
| R_OBSOLETE     | Business        | Software being used becomes obsolete or unusable                          | L          | L        | Have backup pieces of software which can be used on all work and ensure that they are ready to be used in this event.  | James   | Umer         |
| R_ESTIMATION   | Project         | Incorrect estimate of project completion date resulting in                | L          | H        | Review schedule and plan as a team, keep constant track of what team members are   | Richard | Joe          |

|               |         |   |   |   |   |         |       |
|---------------|---------|---|---|---|---|---------|-------|
|               |         | overrun.  |   |   | working on currently and how much work is left to do. Make specific duration estimates for each task.   |         |       |
| R_CODE        | Product | Poor quality code or clashes in code produced by different team members                 | L | M | Make sure code meets software and user requirements, and review often. Test code frequently and appoint reviewers for different sections. Use continuous integration of code and lots of documentation to ensure this does not occur. | Joe     | Will  |
| R_RISK        | Project | Avoidance of or inadequate risk management.   | L | M | Include risk in estimations and complete documentation on risks involved with project.  | Umer    | James |
| R_SCALABILITY | Product | Code does not cater to changing requirements and is not reusable by other team members. | M | M | Write simple and efficient code with clear documentation, frequently test and review code.  | Richard | Olly  |

# Bibliography

- [1] I. Sommerville, Software Engineering, Pearson Education, 2008, pp. 74-98.
- [2] K. Schwaber and J. Sutherland, The Scrum Guide™, 2017 pp. 1-19