# Risk Assessment and Mitigation

## Group 26 - Spice Traders (prior team 22)

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## 5.a Risk Format Introduction

To carry out our risk assessment, we are using a table which allows us to add or update any risks as needed.

- The likelihood and severity are recorded which allows us to focus on avoidance strategies for them if possible. If avoidance isn't possible, a method of mitigation has been devised to allow us to have a plan if a risk does happen.

To try and aid avoidance, an owner has been associated with each risk allowing it to be monitored continuously.

- Assigning a person is important since it allows that person to specialise their role to mitigating that risk. This means the risk will be dealt with quicker and more effectively, decreasing time lost/damage caused by the risk.

- This table will be updated dynamically as the risks are encountered to allow us to see in the future what is more likely and whether the action we performed in response was satisfactory.

- It will also allow us to see which risks are more detrimental to the project, which allows us to update the severity and perhaps prepare more for these types of risks in the future.

## Level of Detail

Each risk has a risk ID and contains a description of the consequences as well as a plan of action. This allows us to provide an immediate response if a risk occurs and to get back on track with the plan as fast as possible.

We gave each risk a likelihood and impact score on a scale of low, medium and high. This allows us to focus on and prepare for the most significant risks which could have the biggest impact on the project.

As the project is relatively small and non-critical all our risks relate to the ability to complete the assessment objectives. As the risk of any physical or mental harm is quite low, we decided not to include these types of risks in the risk assessment.

**5.b Risk Assessment Table**

| ID | Type | Description | Likelihood | Severity | Mitigation and Avoidance | Owner |
|---|---|---|---|---|---|---|
| R26 | Project | Online tools (e.g. GitHub, Google Drive) unavailable | L | M | Use local copies of work, delay meetings if possible until tools are available again | Dan |
| R4 | Project | Absence (long term e.g. severe injury) | L | H | Report absence to staff and discuss further effect of absence | Rob |
| R5 | Project | Illness | H | M | Inform the group of illness and catch up using meeting notes. Redistribute work if necessary | Charlie |
| R6 | Project | Loss of files on local machine (corruption, machine failure) | L | H | Re-download project files from GitHub, allow extra time in case work is lost before being uploaded to GitHub and needs to be re-written. | Marc |
| R9 | Scheduling | Duplicating and Redundant Work | M | L | Manage schedule and assign work appropriately | James |
| R11 | Project | Late Requirement Change | L | L | Discuss effect on schedule, use spare week to ensure work is completed | James |
| R13 | Licensing | Using unsuitable licence of media | M | H | Check licences of media and record type of licence. Find alternative media if licence is unsuitable | Dan |
| R15 | Project | Other groups plagiarism | L | M | Check usage is within terms of licence, if not report to lecturers | Charlie |
| R16 | Project | Unreliable Team Member | M | M | Collect evidence and report team member to lecturers | Alice |
| R17 | Project | Losing Team | M | M | Report to a member of staff. Do more | Alice |

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|---|---|---|---|---|---|---|
| | | Members | | | work each and follow reduced workload plans if more than 1 person | |
| R19 | Project | Game too slow loading | L | H | Ensure that all equipment is compatible and sufficiently new. Game may need optimising and checking for logical errors | Rob |
| R22 | Project | Technical issues with software used for development | M | H | Ask team members for help, consider using labs if in York or delegate work to other team members if labs are inaccessible | Alice |
| R23 | Product | Project does not meet requirement brief | M | H | Involve stakeholder in the project, compare project to requirements regularly | Charlie |
| R24 | Project | Late for submission | M | H | Check progress every week. If we do get behind, put in extra hours to work on project. Distribute work to areas where people are most competent to help timely completion. Ensure a single person is not overloaded with work and assist others if they are stuck. | James |
| R25 | Product | Game doesn't run on university computers | L | H | Continuous testing throughout the project. Investigate performance issues, discuss with the team and research if necessary. Consider restructuring code or using alternative methods. | Dan |

# Risks Encountered

| **Risk Encountered (ID)** | **Description of Risk** | **When encountered?** | **Solved?** | **When solved?** | **How was the problem solved?** |
|---|---|---|---|---|---|
| R5 (illness) | James got covid for a week | 28th March 2022 | Y | 5th April 2022 | James recovered and caught up on work |
| R22 (technical issues) | GitHub randomly failing tests that passed on local machine | 3rd March 2022 | Y | 5th March 2022 | Force GitHub Actions to run tests on a single core |
| R23 (requirements not met) | At the start of assessment 2, the controls to move the player were different to the controls specified in the requirements | 15th February 2022 | Y | 20th February 2022 | Updated the controls in game to be in line with the stakeholder discussed controls |
| R19 (loading times) | Pathfinding caused the game to load slowly | 15th march 2022 | Y | 22nd April 2022 | A pathfinding radius was implemented so only ships near the player move |
| R13 (licensing) | A sound we used in the game did not have a licence | 20th March 2022 | Y | 20th March 2022 | Replaced sound file with a licensed sound |
| R9 (redundant work) | Alice and Charlie both added a sound effect for the same action | 27th February 2022 | Y | 29th February | Alice’s sound effect was deleted |