

Risk Assessment & Mitigation

Group Number: 10

Team Name: Decassociation

Group Member Names:

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Risk Management Process

This document breaks down the issues that we anticipate encountering throughout our project, in the form of a risk register. All entries in the risk register have been agreed upon by all team members before they were added. Although many potential problems could be identified at the beginning of the project, any foreseeable risks encountered during the run of the project will be added as soon as they are feasible.

We have agreed that to best manage this document and what it represents we should revisit it regularly during meetings allowing us to update, append and discuss it. Each group member will also be expected to track the risks they own and report back on them to the group during these meetings.

For higher likelihood risks the owner is also responsible for taking preemptive measures to mitigate/prevent an occurrence. These steps may take more work such as completing backups of shared documents. In these cases, we hope that going over currently listed risks again will ensure these tasks are always completed.

Risk Register

The Risk Register has seven columns. Each risk has a unique identifier (R1, R2 etc) so that they can be easily distinguished; there is a type, description of the risk, likelihood of the risk occurring, severity rating, way of mitigating the risk and the owners of the risk.

Fields of note

Type:

We have split our risks into three different types based on their causes and effects. This is to allow us to better track what risks could happen at different stages. We can also use these categories as a shorthand for what can be prevented/mitigated. They are as follows:

- *Product* - Risks that relate to a change in what we are working towards (i.e. implementation of the game and deliverables/documentation).
- *Technology* - Risks that could be triggered by the technology we are using.
- *Team* - Risks caused by people within our team + the customer.

Likelihood:

How likely an occurrence of this risk is. Also affects how actively we need to monitor/work to prevent it. Categorised as follows:

- *High* - The risk will most probably affect us during the project and must be prevented/accounted for
- *Medium* - The risk occurring is not entirely unlikely but we should be prepared for it
- *Low* - The risk likely won't come to fruition during our project but is still worth monitoring just in case

Severity:

Describes how much an instance of a risk will affect our project. Will also affect how much planning we should do for the event if it does occur.

- *High* - The risk will have a detrimental impact on the development of the project causing long-lasting or substantial loss on the final product.
- *Medium* - The risk will have a noticeable impact on the development of the project causing short-term or minor long-term consequences.
- *Low* - The risk will have a negligible impact on the development of the project creating minor short-term consequences.

Owner:

Shows who is taking responsibility for managing a risk. In the event that the management must be done collectively, the owner is listed as 'Everyone'.

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R1	Team	The loss of or unavailability of a team member for more than a 2 weeks.	Medium	Medium	Allocate multiple people to the missing team member's work and make sure everyone's work is up-to-date and can be viewed on Google Drive so that we aren't caught out by the loss.	Everyone
R2	Team	The loss of or unavailability of multiple team members for at least 3 weeks (or permanently).	Low	High	Speak to the lecturers to discuss the situation and find a way to stack on track. We'll also allocate multiple people to the missing team members' work to try so we can stay as on-track as possible.	Everyone
R3	Technology	A team member's laptop isn't working, which may cause a slow down or halt in their productivity.	Low	Low	Use of university machines and if necessary reallocation of work until fixed.	Everyone
R4	Technology	The team's repository becomes corrupted on GitHub.	Low	High	Most of the team (if not all) will have the game code on our local machines/laptops so we can create a new repository based on this code.	Poppy
R5	Technology	GitHub goes down.	Low	High	Make sure that any team members working on the game code are working on separate classes that don't conflict so that when GitHub is back up, everyone's code doesn't clash. We may have to stop working on the code while it's down, although if it is down for more than a day or two then we will likely look at a different	Everyone

					way of storing our code/version control until GitHub is fixed.	
R6	Product	Someone pushes a commit that deletes everything.	Low	Low	Rollback the push that caused the issue and try and work out what went wrong so it doesn't happen again.	Tom
R7	Technology	Google Drive goes down - we would lose shared, synchronous access to all our documentation.	Low	High	At least one member of the team should have a local back-up of the essential documents (includes deliverables) so they can still be worked on.	Owen, Mo
R8	Technology	A library used in the code is discontinued.	Low	Low	Change the library or continue using the library on an older version if possible.	Everyone
R9	Team	We fall behind schedule (e.g. spend too much time on specific features or documentation).	Medium	Medium	As a team, organise how we move forward based on what needs doing next, how quickly it needs to be done, and we will agree on who does what.	Michael
R10	Team	An accessibility need arises for a team member that we didn't originally account for.	Low	Medium	Speak to the team member that has the accessibility need and try to accommodate for it as best we can. We may have to reassign work.	Lucy, Poppy
R11	Product	Some of the game code may be untested as it might not be possible to create unit tests for the entire game and there may be a lot to test manually.	Medium	Medium	We started testing the code straight away so that problems can be identified as soon as possible. Testing manually and through unit tests will always be a top priority so all our effort is focused here. If appropriate and we have time, we will rewrite code to make it testable. However, this may not be possible in the time frame for the project.	Everyone

R12	Product	The Assessment 2 changeover in documentation may lead to some key details being missed as our Assessment 1 documentation is different to Team 3's. There are good and bad aspects to our and their documentation and its difficult to put the best parts of both together and follow their work.	High	High	Team 3's documentation will need to be carefully examined and compared with our Assessment 1 documentation as we amend Team 3's for Assessment 2. Documentation will need frequent evaluation to ensure it's all high quality and that we have improved from Assessment 1.	Owen, Tom
R13	Product	The game may become boring after playing for longer periods of time. The scenario mode may not become boring as it can be a shorter time but endless mode may get really repetitive.	Medium	Low	We will try our best to keep the game as fun as possible by using a variation of customers, recipes, ingredients and will include as many features as possible that can 'mix-up' the gameplay that are feasible and not too much.	Everyone

Below is a table detailing risks that we included in our risk register for Assessment 1 but Team 3 did not and are still significant risks:

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R14	Product	The requirements given by either the brief could be misunderstood, which could cause the team to lose progress if previously completed sections of the project have to be edited due to a misunderstanding. Team 3 may also have misunderstood some of the requirements which might causes us to misunderstand the requirements too since we're using their requirements document.	Low	High	Read through and break down the requirements thoroughly just as we did in Assessment 1, to ensure that the entire team has a proper understanding of what is required from the project, and ensure there are at least 2 people who track the requirements and ensure they are up to date.	Owen, Poppy, Lucy

R15	Product	Visual and audio assets taken from online sources could potentially be misused, which may breach the copyright policies offered by an asset's licence. This is particularly important for Assessment 2 because Team 3 may not have credited their asset sources if they used any external sources.	Low	Low	Ensure that when sourcing assets online that the licence of the asset is acknowledged and followed correctly. Additionally, avoid asset sites that may not be following copyright guidelines correctly. We will correct any misuse of and/or uncredited asset sources.	Poppy, Michael, Lucy, Mo
R16	Team and Product	If not all members of the team contribute significantly or equally to the project it will likely increase the workload on the rest of the team or risk the project not being completed fully for the deadline.	Medium	Medium	Frequent meetings to check on each team member's progress can help understand who is contributing the most and least to the project, and actions can be taken using this information if needed.	Owen, Tom and Michael
R17	Product	If the code doesn't match up with the documentation for the project (such as the architecture class diagrams and/or the requirements) then there will be a large incoherence. This may significantly impact how our implementation meets the project requirements and the quality of our end product. There's also a higher risk because we will have to amend Team 3's architecture as we develop the code and it may not be correct to start with.	Medium	High	There will always be at least 2 people who are up-to-date with all of the documentation and are responsible for highlighting any issues and inconsistencies between the code, requirements and architecture documentation mainly, but also the rest of the documentation where appropriate.	Owen and Tom

Risks Reviews:

- 11th April 2023: R11 has developed slightly. There are quite a few tests that we have had to do manually as they require SpriteBatch which cannot be used with the headless application used for unit testing. The unit tests are also taking quite a long time which is making it difficult to test everything at the moment.