

# Risk assessment and mitigation- Risk1

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## Risks affecting the project

We have chosen to structure the risk management part of the project as a table in a text document. Searching for specific risks can be done by making use of the unique ID or key words found in the description, a feature which is handy since risks may be referenced in other documents throughout the ID system. Each record consists of an individual risk, an ID, what it affects, the likelihood of it occurring, the severity and the mitigation we have considered to prevent it from becoming an issue and/or to reduce its impact on the project.

This table will be utilisable in other documents in order to declutter them. This is because the explanation and mitigation of a risk will be included in this document and so there will be less conflicting information between documents, which will overall have the impact of reduced data redundancy.

For likelihood and severity we will use a three stage classification:

L - Low; M - Medium; H - High

We have opted to use three stages as this gives enough variety to better understand the categories without having too many fractions which could describe a risk. It helps to rank the risks and group them, allowing the team to prioritize High grouped risks during development while looking back at Low grouped risks less frequently e.g. during reviews of tasks.

Our process for risk identification and analysis is as follows:

Risk identification:

1. A team member raises a potential pitfall of our solution, strategy or otherwise. This could be through casual conversation with the team or by our formal reporting system in the correct channel of the Discord.
2. Collectively, the team comes to a unanimous decision on the categorisation of that risk (either L - Low, M - Medium or High - H, as outlined in the introduction). This could be done within the formal Risk Assessment Discord channel or by voice chat in one of our Meeting Rooms.
3. The team, by the methods outlined in Step 2, comes to a decision on who is best placed to take ownership of that risk and ensure that it is mitigated.
4. The person looking after the Risk Assessment document, currently Jack Longmuir for this iteration of the Assessment (Assessment 2), formally adds the risk complete with a new unique ID to the Risk Assessment document once the team has reached a unanimous decision on all fronts, as outlined in Step 2 and Step 3.

Analysing the classification of risks:

As per Step 2 of the risk identification process that leads to a risk being added to the Risk Assessment document, the team must come to a collective decision around how severe the identified risk is.

Our process for placing a risk into its correct category involves comparing previously listed risks to the new incoming one and ranking it either above, below or equal to those prior risks by unanimous decision.

A classification of H often means that this risk, if left unchecked, could fatally impact the project. M is a risk that has some potential to escalate to a H, though this is unlikely and is simply an important risk to keep an eye on. L risks are low probability risks with potential to escalate to M, and may have a minor impact on the project outcome and so must be watched.

## Formal Risk Assessment

ID	What does it affect?	Description	Likelihood Severity Mitigation			Owners-hip
R1	Project	Leadership Issues like change in leadership	M	H	Assign the leadership role to a team member Laissez-faire strategy	Dougie
R2	Project	A team member becoming unavailable	M	M	Assign more than 1 person to each task.	Jack
R3	Project	Graphics library unavailable (not downloaded) on new computers	H	H	Use a few computers that have already downloaded the required libraries and loaded up the game.	Luke
R4	Product	Lack of knowledge in the libraries used in the project	H	M	Research libraries prior to starting the project.	Andorea
R5	Product	The library could be old and be unsupported by the latest versions of the program	L	M	Use a similar more updated version of the library	Luke
R6	Product	Changes in User Requirements	L	L	Have bi-weekly meetings with the customer	Julia
R7	Product and Project	The specification takes too long	L	M	Make a schedule and make sure we are kept in track	Dougie
R8	Business	There will be similar games created in our course	H	L	Plan for a more unique design. More eye catching.	Julia
R9	Product	Too many boats on screen can cause visual clutter on the	M	M	Reduce the amount of opponents the player has to compete against	Luke

		screen.				
R10	Product	May not be fun due to the game being too long	L	M	Reduce the play time of the game	Jack
R11	Product	May lead to the player not being able to move due to running out energy and not being able to finish the race	L	L	Set a fixed speed for the player and have the player get tired after using acceleration.	Justin
R12	Product	Display of controls aren't displayed too explicitly as it is very simple.	L	M	Add a separate controls screen to advance from or enlarge the current controls display.	Justin

R13	Product	If there is no variation in the route the player is more likely to get bored	M	M	Make different routes for the race to take place on	Luke
R14	Product	Sensitivity of the collisions needs to be high else game can be frustrating	M	M	Using multiple polygons for collision boxes and quick checks for if there are overlaps in collision boxes	Dougie
R15	Product	The user may find the game difficult.	M	M	Start the game at an easy level to get the user used to the controls and environment.	Jack
R16	Product	Objects/Boats looking similar making it confusing for players to discern what is what. Similar textures can become boring	M	L	Varying designs in the objects so they do not look the same. Boats will have different colours; this is not the most inclusive but is to reduce time on producing assets.	Justin

R17	Product	Maximising the screen may conflict with the game's preset resolution cause certain buttons to be unusable.	H	M	Make use of percentages instead of pixels.	Jack
R18	Project	Development may run overtime and the project may not be delivered on time.	L	H	Focus on the core aspects of the game first.	Julia
R19	Business	Game is able to run solely on desktop devices therefore missing out on a larger target audience within areas such as mobile gaming.	H	M	Make it cross platform.	Andorea
R20	Product	Lack of accessibility and other settings may cause user discomfort (e.g. inability to reduce brightness may cause eye-strain).	L	M	Allow users to access settings such colour brightness/correction.	Jack
R21	Project	On older computers, there might be memory constraints that affect the game performance	L	H	Make sure that the most efficient implementation is used.	Andorea