Risk assessment and mitigation

Introduction and justification

In order to identify possible risks, we first defined our project objectives. Our main goal was to build a boat racing game that would satisfy all the requirements of the customer, be playable and enjoyable. We then reviewed the requirements, including user, functional and nonfunctional requirements, and went through our project plan to determine all possible factors that can affect the quality of the final product.

For documentation purposes we decided to organize possible risks in tabular format. We also divided all risks in three categories: “Project”, “Product” and “Business”. “Project” category is assigned to the risks that might affect our project schedule and progressing speed. “Product” category is for the risks that may potentially affect the quality of the game, for example, any hardware or software issues. As for “Business”, this category is assigned to the risks that may affect the success of our product in the market, in our case - success of using our game for promotional activities organized by The University of York Communications Office.

In addition, we assigned likelihood and severity scores to each risk. For both likelihood and severity measurement we used a scale of “low”, “medium” and “high” which is easy to understand and intuitive.

Potential risks have been identified by the whole project team, as all members of the team were involved. Any potential risk suggested by any member was recorded and analysed. More specific/technical issues have also been assigned to specific team members that are working on related parts of the project. If a new potential risk is found by a member in the future, it will be posted in the Discord dedicated channel, then discussed and added to the table.

Tabular representation

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R1	Project	A team member is sick and doesn’t show up at a meeting	Medium	Medium	Assign the task to another member of the team to ensure that it is completed in time	All
R2	Project	Accidentally deleting a file from Google Drive	Low	High	Make sure members keep backup copies on	All

					their computers	
R3	Project	A team member does not contribute to the project	High	High	Make sure all tasks are completed by other team members	All
R4	Project	Miscommunications and lack of clarity, e.g. several members doing the same task, misunderstanding design decisions	Medium	Medium	Every team member must inform others about the parts of the project they are working on, ask for clarification when uncertain about something	All
R5	Project	Team is running out of time	High	High	Meet up more frequently and make sure every team member is involved	All
R6	Project	Conflicts within the team	Low	Medium	Try to resolve a conflict or minimize its effect on the projects	All
R7	Project	Misunderstanding customer requirements	Low	High	Schedule a meeting with the customer and make sure all requirements are understood and met	All
R8	Project	Project schedule is not clearly defined or understood	Low	Medium	Share the schedule, make sure every team member understands the plan and is aware of deadlines. Go through completed and upcoming tasks at weekly meetings	All
R9	Project	Misunderstanding some of the assessment questions	Low	High	Contact the lecturer and make sure all question are understood and answered	All
R10	Business	The customer is not	Low	High	Set up a team	Coders,

		satisfied with the game design/implementation			meeting and discuss possible changes	Desig-ners
R11	Product	Product doesn't meet some user, functional or nonfunctional requirements	Low	High	Review the requirements at each stage of the project and make sure all of them are met	All
R12	Product/ Business	Product doesn't meet the customer expectations, e.g game is too complex, too simple or not enjoyable	Low	High	Organize a team meeting and discuss possible changes or improvements	All
R13	Project	Lack of skills/ knowledge of team members	Low	Medium	Team members must learn/improve their skills through taking online courses, reading relevant literature or using any other resources	All
R14	Product	Game is not playable on a low spec computer (i.e. dual-core laptop with 4GB of RAM)	Low	Medium	Set up a team meeting and discuss what adjustments can be made to the game to run on a low spec machine	Coders
R15	Product	Game is not playable on some platforms	Low	Medium	Set up a team meeting and discuss what adjustments can be made to the game to run on other platforms	Coders
R16	Product	Game mechanics/controls are too complex to understand	Low	Medium	Redesign the tutorial, think of other changes that may help	All
R17	Product	Game logic does not work as expected, e.g. durability doesn't reduce when colliding with	Low	High	Members responsible for the implementation must go through	Coders

		obstacles			the code and find any logic errors	
R18	Product	Game keeps crashing	Low	High	Members responsible for the implementation must go through the code and find the cause	Coders