UNIVERSITY OF YORK

DEPARTMENT OF COMPUTER SCIENCE

ENG 1 Team Assessment
Group 18

RISK ASSESSMENT + MITIGATION

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5.a - Introduction and justification of the risk format

Risk assessment is a vital part of breaking down the process and identifying what type of errors could arise and how we would solve and avoid them. The four main risk management processes are risk identification, risk analysis, risk planning and risk monitoring. All these processes are very important in minimising the risk of errors and maximising the project success. Analysing each of these processes in relation to specific potential risks in a tabular format will make sure these risks will be avoided throughout the project.

The main types of risk are: Project, Product, Product and Project and Business. Project risks are risks that affect project schedule, resources and the productivity of the people in the group, material and tools of the project. Product risks are risks that impact the end product quality and completeness of the project. This mainly involves risks with software, libraries and tools used in the software development process. Product and project risks change both the software aspect and team work. Business risks are risks that affect the organization, the results on the target market and the software to be applied as a product.

The table below shows and breaks down the potential risks and how to overcome them to make the flow of software and product development easier. The first column will be identifying what the risks are and the second will be what type of risk they are, which comes under risk identification. The next two columns are severity and likelihood; these are vital components of the analysis section, as they will show which risks are the most important and most devastating to the project. Also mitigation strategies and contingency plans are important to reduce and overcome the risks. Mitigation is the main part of risk planning as it is creating ideas and strategies making the problems easier to solve and overcome. Through the use of the table, monitoring can be done easily as it is a simple visual representation which can be assessed easily.

From participating in risk assessment and management it makes the product as a whole more error free and easier to track. It makes the whole product and project smoother in its productivity and its effectiveness.

5.b - Risks

ID	What are the risks?	Type of hazard	Severity 1-5 (low - high)	Likelihood 1-5 (low - high)	Mitigation
R1	The game is not playable.	Product	5	2	Through testing and collaboratively discussing the game this will minimise areas in the game that are unplayable.
R2	The game is difficult to play and learn.	Business	3	3	Keep referring to the user specification and test the game with a range of ages and skill levels.
R3	The game is too long.	Business	2	3	By selecting the desired complexity and length by discussing with the customer. In testing, run the game and calculate the average time for each game.
R4	Group disagreement.	Project	4	3	Having group discussions to measure the pros and cons and have a unanimous result.
R5	Lack of group coordination.	Project	4	3	Having more group meetings to discuss potential ideas and to get everyone involved. Don't let people fall too far behind.
R6	Choosing a hard/ incorrect library.	Product and Project	2	3	Researching many different libraries and software to choose the correct tools specific for the customer and specific to the game being created.
R7	Delay over Christmas and exams.	Project	1	4	To schedule meetings when everyone is free to communicate about the project.
R8	Inadequate software design.	Product and Project	4	2	Create a brainstorm of different software designs and pros and cons for each

					one.
R9	Not specific to the customers needs.	Business	5	3	Keep referring to the user requirements and the customer requirements to make it inclusive for the target market.
R10-	Game not ready on time.	Business	5	1	By creating a strict schedule and having meetings to make sure everyone understands what they are doing.
R11	Implementation takes longer than expected.	Product and Project	3	3	Create a well structured code itinerary. However if there is not enough time for completion, with the remaining time try to split up the remaining work and abstract the less important parts.
R12	Requirements for the project are undefined.	Product	2	2	Ask more questions to the customer and potential target market users to gain greater insight into the requirements.
R13	Inefficient coding structure.	Product	3	3	Try to lay out the code in a specific style, preferably structured OOP. If the structure falls apart add comments and docstrings to specific what is done in each area.
R14	Suitable for windows and linux.	Product and Project	4	1	This is a vital consideration for the customer. Use a universal file type so it can run on many different os devices.
R15	The game is not inclusive to everyone.	Business	5	1	Test with different users in different age groups and skill levels to make it inclusive for everyone. But still specific to the target market.
R16	Poor aesthetic and unuseable UI.	Product	4	2	Test aesthetics with potential target market users to get their opinion and discuss as a team.

R17	Inadequate rules section.	Product and Project	1	1	Create a different section for rules so beginners can understand how to play the game.
R18	Complicated and ineffective game play.	Product	4	1	Keep discussing potential ideas on difficulty and not make the AI too difficult.
R19	Game is difficult to run on required hardware.	Product	3	2	Make the game code efficient to reduce the likelihood of crashes and taking up too much space.
R20	Game is breaking with unexpected input.	Product	4	3	Test the code using unit tests. To test for correct input and output.
R21	Erroneous data.	Product	2	2	Test for extremely unexpected inputs to make it error and crash free.
R22	Dividing work between the team evenly.	Project	3	2	Abstract and layout all parts of the problem then divide into specific areas. Then assign to specific people.
R23	Working with a new team.	Project	3	1	Get to know the team better by meeting in person and having a friendly chat about the project and other activities.
R24	Sharing files and information with the group efficiently.	Product and Project	3	2	Use an intermediate piece of technology to share, distribute and track the progress of the group. For example: Discord, Jira, Github, Google drive, Slat and many more.