Risk Assessment and Mitigation

Group 1 Cohort 1

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We followed the risk management process outlined in the textbook[1]

Risk Identification

This stage involved examining and discussing various topics:

- Scheduling of our project
- Availability of team members
- The coding abilities of each team member
- Assets and libraries we were going to use

We then identified what issues could arise in each of these topics. For example the library we chose LibGDX has known bugs (https://github.com/libgdx/libgdx/issues) that could potentially affect our end game.

Risk Analysis

After various potential risks were identified we started investigating how likely they were and their potential impact. In the case of bugs in LibGDX, we realised that these bugs are very high level and unlikely to affect our simple project. Hence it is not included on the final risk register.

Risk Planning

This stage involved examining each risk and deciding strategies to avoid them happening. An example of this is agreeing on a documentation style guide to mitigate the risk of inadequate documentation.

Risk Monitoring

This is a continuous process in our project. We would regularly review our risks and change their likelihood, severity values. Risks that had been identified early on but did not end up happening were removed

Format Of Risk Register

Id	Type	Description	Likelihood	Severity	Mitigation	Owner
Number for each risk	Each Risk Affects: Project - Schedule of Project Product - End quality of product Business - Wider organisation issues	Briefly describes the risk	Chances of this risk occurring. **VALUES:** LOW MEDIUM HIGH	Damage this risk can cause **VALUES:** LOW MEDIUM HIGH	Steps taken to avoid this risk	Who is responsible for handling this risk

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
R1	Product	Difficulty in balancing game mechanics	High	High	Prioritise simplicity and intuitive design to mitigate potential confusion.	Tom, Charlie, Chris
R2	Product	Inadequate documentation of code and processes	Medium	Medium	Enforce documentation standards and practices throughout the development process.	Tom, Charlie, Chris
R3	Product	Difficulties in finding suitable music that is not licensed or copyrighted may delay the selection process	Medium	Low	Consider not adding music	Chris
R4	Product	Integration issues arise when attempting to incorporate all necessary assets leading to problems	High	High	Implementation team should collaborate closely to ensure seamless integration and functionality.	Tom, Charlie, Chris
R5	Project	Team member lives outside of York and commutes via trains. Train strikes and delays could cause issues with attendance	Low	Medium	Try out methods of working online. E.g Zoom Calls, Github, etc.	Kevin
R6	Product	Pixel based UI elements fail to scale properly across different screen resolutions resulting in poor user experience and usability issues.	Medium	Low	Conduct extensive testing on different resolutions to identify and address any scaling issues. Implement dynamic UI scaling algorithms to adjust element sizes and positions based on device characteristics.	Tom, Charlie, Chris
R7	Project	One member of the implementation team uses Mac	Low	High	Find tools that specifically cater to both platforms.	Charlie

		whereas all others use Windows. Platforms differences may slow down cause issues in development				
R8	Business	Most groups are using the Eclipse IDE while we are using the IntelliJ IDE Other groups may not pick our game if the tools we use are not the same.	High	Low	Ensure the project is well documented (see R2). Proper marketing of our game during presentation.	Tom
R9	Product	Initial scope changed due to customer requirements.	High	Medium	Regular communication with customer and looking at user requirements to ensure requirements are clear and met	Everyone
R10	Project	Underestimation of task complexity or effort leading to delays	High	Low	Implement agile methodologies with frequent reviews and adjustments. Build in buffer time for unexpected challenges.	Shirin, Ella

[1]I. Sommerville, Software engineering, 10th ed. Pearson, 2016.