

# ENG1 Risk Assessment and Mitigation

Cohort 3 - Group 28

“Team 28”

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# Risk Management Process

The risk management process begins with the risk identification. This is when we, as a team, identify the potential risks that could occur throughout the project. We originally uncovered these risks by brainstorming and identifying what events could occur later in the project such as errors in code, miscommunications and potential contrasting ideas. These were presented to the group and made aware in order for us to fully understand where we have the greatest chance to go wrong so we can put mitigating measures in place.

The next step in the risk management process is to analyse the risks. We analyse these risks by identifying the likelihood of these risks occurring and by communicating to the team what the potential consequences are, given that these risks occur. We also rank these risks by their severity, which helps limit the more severe risks which could cause bigger problems.

Step three in the risk management process is to plan for what we do if and when these risks are to occur. As many of these risks are likely to occur throughout the course of the project (such as bugs) we have to plan for what we do after finding these. The first, and arguably best, way to stop these risks is to avoid them in the early stages. This can be done by collaborating in mini teams so there is always another person checking your work. Another way is to mitigate the damages done when these risks occur. For example when making the code, if the code is made broken down into many smaller functions and classes the damage caused by an error is limited.

The final step in the risk management process is to monitor. This means we, as a team, need to keep track of the previously identified risks. In order to do this, we are set to meet twice a week until the project is completed. At each of these meetings the risk management team will ask each of the team members about the risks pertaining to their given task, remind them to look out for previously identified risks and check if they have identified and ran into any additional risks. These risks are further monitored and mitigated within by us setting internal deadlines for each area of the project in order to maintain a target and stay on task for each individual person.

# Risk Identification

| Risk   | Likelihood  | Impact  | Mitigation  | Ownership                           |
|--|---|---|---|-------------------------------------|
| Bugs   | Bugs are very likely to happen throughout the course of any project.  | The impact of the bug is dependent on what the bug is. These can vary from entirely game breaking (for example if a bug causes the game to crash immediately) or the impact could be minimal (for example if a sound slider isn't working properly) | The best way to mitigate the damage caused by the potential bugs is to consistently test if the code is working under various inputs and conditions. The best way to do this is to implement unit tests if we have time to do so. | Programming Department              |
| Specification Delays                         | As the work has been split between all members, the likelihood should be low if everyone puts in an equal amount of work.                                     | Depending on the task that is delayed, these can be potentially game breaking or could be on the report side which would not affect the game but damage the teams overall marks.  | During each meeting the team will assess the progress of each other's work to ensure all members are on track to complete their work.   | Every Team Member                   |
| Licensing Issues                             | As the game is entirely for internal/personal use and will not be released to the public, it is very unlikely that we are to experience any licensing issues. | The impact is that the team will be required to either find new assets to use that do not require a licence or that the team creates our own assets.  | To prevent this the team will have to ensure we check the assets we use do not require licence or we create all our own assets.   | Architecture Department             |
| Misunderstanding brief/customer requirements | Potentially   | Full brief is not met leaving unsatisfied customers and reviews of the game project   | Break down each individual section of the brief allowing the group to fully understand the matter at hand and what is required  | Every team member                   |
| Performance issues                           | Unlikely as its a simple game not requiring large hardware requirements   | Having low performance can result in the consumer's experience being limited and not as enjoyable   | Frequently testing on all hardwares such as low end devices. Paired with this won't put in any assets or implement any features that are  | Programming/Architecture Department |

|                           |   |  |  |                         |
|---------------------------|---|--|--|-------------------------|
|                           |   |  | too hardware intensive   |                         |
| Graphical issues          | Unlikely as its a simplistic art style using low bit assets                             | Can result in a poor customer experience when playing the game such as assets not loading or in the wrong place  | Keep the art style relevant throughout with all assets using the same pixels   | Architecture Department |
| Group retention           | Possibility with unforeseen circumstances   | Can lead to delays within the project. Affecting other focuses as people will have to potentially move from their current department to another in order to maintain on course for the release date. | Have the whole group aware of each possible task and have the knowledge to pick up where another member has left it. Allows the whole project to carry on like normal without interruptions                            | Every team member       |
| Communication issues      | Possibility and potentially the most important  | Can potentially lead to conflicts as potential deadlines might not be met or present in a poor looking final result as a result of people being unclear on certain aspects of the game.              | Set up frequent 'check in' meetings so all the group is up to date on each other's current progress. This also allows any queries to be answered so everyone is clear on their objective moving forward.               | Every team member       |
| Underestimating Deadlines | This is unlikely to occur as we have equally split all of the work amongst team members | The impact of this is that the work will be rushed as it may be left to the last minute. The work will still all get done but possibly not the high standards we expect.                             | The best way to mitigate this is to plan carefully before starting and to leave spare time at the end rather than plan to finish at the last moment, this will allow for delays or if work takes longer than expected. | Every team member       |