Requirements
Team Glych (Team 34)

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Overview

After reading the product brief and two interview sessions with the customer, we determined the project's requirements. Our team raised some suggestions for the game's user requirements during these sessions. The objective of these interviews was to establish the feasibility of these suggestions and how they could be implemented.

An interview session was used to gain clarification for areas we were unsure of and to explore the wider context of the project. The feedback from this meeting was then incorporated into the User Requirements. Due to the timescale of the project, we decided that only 'shall' priority user requirements would be considered.

After the interview, the user requirements were expanded into system requirements which will be used to inform the later design stages. This provided our team with clear goals for the implementation of the project and insight regarding how these can be achieved.

Additionally, we looked at a number of similar projects; this research helped inform our designs. Some of the projects that inspired our design decisions include "Among Us" [1] and similar top-down space games.

The user requirements have each been listed with a unique ID, a description of the requirement and its corresponding priority. This layout helped us focus on the key requirements of the project due to the limited time frame. User requirements with similar purposes have a key word to describe the area they cover. The Functional and Non-Functional requirements tables are listed with IDs, a description and the user requirement relevant to the functional requirement.

The game has two main stakeholders, who provide input to the requirements — the customer and The University of York Communications Office.

Single Statement of Need

The game shall enable players to explore a spaceship in real time whilst arresting the eight hostile invaders that have infiltrated the ship.

User Requirements

ID	Description	Priority
UR_MENU	Players can start a new game and learn about the game from a main menu	Should
UR_MENU_PAUSE	Players can pause and exit the game from a pause menu	Should
UR_REALTIME	The game shall be played in real time	Shall
UR_WORLD	The game shall be set in a Space Station	Shall
UR_WORLD_ROOMS	The game shall have at least 4 rooms	Shall
UR_WORLD_INFIRMARY	The game world shall have an Infirmary room, where the character can heal	Shall
UR_WORLD_SYSTEMS	The game world shall have at least 15 systems that can be interacted with in the rooms	Shall
UR_PLAYER	The character shall be controllable by the player	Shall
UR_PLAYER_TELEPORT	The character shall be able to teleport between rooms	Shall
UR_ENEMY	There shall be 8 hostile operatives, whose aim is to sabotage the systems	Shall
UR_ENEMY_ABILITY	There shall be at least 3 special abilities for the enemies	Shall
UR_GAME_WIN	The game is won when all 8 enemies are arrested	Shall
UR_GAME_LOSS	The game is lost when 15 systems are destroyed	Shall
UR_GAME_UX	The game shall offer a pleasant user experience	Shall
UR_MARKET	The game should be targeted to university students	Should

Functional Requirements

ID	Description	User Requirement
FR_HEALTH	The player should have a health meter that can be refilled	UR_WORLD_INFIRMARY
FR_SYSTEMS	The game should track how many systems are running or destroyed	UR_GAME_LOSS UR_WORLD_SYSTEMS
FR_BRIG	There is a room where enemies can be arrested	UR_GAME_WIN
FR_ABILITY	The enemies should have a range of special abilities	UR_ENEMY
FR_CONTROLS	The character should be controllable by the player in real time	UR_PLAYER UR_REALTIME

Non-Functional Requirements

ID	Description	User Requirement	Fit Criterion
NFR_RESPONSIVE	The player should be controllable in real time	UR_REALTIME UR_PLAYER	<1s response to an input
NFR_DEVELOPMENT	The game must be completed by the deadline.		The project deadline is the 25th December

Use Cases

Case 1

Name: Enemy Arrest
Primary Actor: Auber
Supporting Actors: Enemy
Precondition: Auber and enemy are a reasonable distance apart such that Auber can capture the enemy
Success Postcondition: Auber transports enemy to the brig.
Trigger: Auber collides with enemy.
Main Success Scenario:
- Player spots an enemy character
- Player moves towards the enemy
- Player takes the enemy to the Brig

Case 2

Name: Enemies Win
Primary Actor: Enemies
Supporting Actors: Auber
Precondition: Enemies destroy 15 of the ship's key systems
Success Postcondition: End game screen is shown
Trigger: The 15th system is destroyed
Main Success Scenario:
- Enemies destroy 15 systems
- Game ends as a loss

Bibliography

[1] InnerSloth, 'Among Us', Online. Available at http://www.innersloth.com/gameAmongUs.php