

Module: ENG1/ASSESSMENT1

Title: Requirements

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Introduction

On this page we have outlined the user and system requirements for our Auber game. In order to elicit these requirements we carried out multiple customer meetings asking questions about the specific user requirements and also took thoughts from our flatmates who are close to the target audience as they are students at the university. For understanding and gathering accessibility requirements we used concepts and ideas from a mix of our HCI module and through the Engineering lectures. Taking inspiration from the requirements engineering lecture we decided to split the requirements into three tables: User Requirements, System Requirements (Non-Functional and Functional).

User requirements Table

ID	Description	Priority
UR_UNAVAILABLE_NETWORK	Users shall be able to use the system without a network.	Shall
UR_BASIC	Users shall start and exit the game at any time.	Shall
UR_TELEPORT	The system shall teleport Auber to any other teleportation pad in the station.	Shall
UR_HEAL	Auber shall heal in the infirmary.	Shall
UR_GAME_WIN	Users shall arrest all eight infiltrators.	Shall
UR_GAME_LOST	The infiltrators shall destroy more than 15 systems of the space station.	Shall
UR_INFILTRATORS_ABILITY	Infiltrators shall have different special abilities.	Shall
UR_ARREST	The system shall teleport the infiltrator to brig.	Shall
UR_DESTROY	The system shall destroy the systems of the space station.	Shall
UR_UX	The system shall offer a pleasant user experience.	Shall
UR_REPORT	We shall provide enough documentation for another team to pick up our project.	Shall
UR_ACCESSIBILITY	The game will be accessible to as many of the target audience as possible.	Shall

UR_USABILITY	The game must be usable in the correct setting (open-day)	Shall
UR_SAVE_LOAD	The game must be saveable and loadable	Shall
UR_DIFFICULTY	The game must have difficulty options	Shall
UR_AUBER_ABILITIES	The player must have access to five special abilities that help them catch the infiltrators	Shall
UR_MUTABLE_SOUND	The user must be able to mute any sound effects or music implemented in the game	Shall

Functional Requirements Table

ID	Description	User Requirements
FR_PLAYER	The system shall allow a user to be a player.	UR_BASIC
FR_START	The system shall allow a player to start a game.	UR_BASIC
FR_EXIST	The system shall allow a player to exist in a game.	UR_BASIC
FR_AUBER_POSITION	The system shall capture the position of a player.	UR_TELEPORT
FR_TELEPORTATION_PAD	The system shall know the positions of the teleportation pad.	UR_TELEPORT
FR_AUBER_MOVE	The system shall allow a player to move.	UR_TELEPORT
FR_HEALTH_OF_AUBER	The system shall set an amount of health for a player.	UR_HEAL
FR_JUDGE_HEALTH	The system shall need to set a minimum health before teleport to the infirmary.	UR_HEAL
FR_ARREST_NUMBER	The system shall record the number of infiltrators arrested.	UR_GAME_WIN
FR_WIN	The system shall allow you to set a minimum number of infiltrators arrested to win.	UR_GAME_WIN
FR_DESTROY_NUMBER	The system shall record the number of destroyed systems.	UR_GAME_LOST

FR_LOST	The system shall allow you to set a minimum number of destroyed systems for the game to be lost.	UR_GAME_LOST
FR_INFILTRATOR_POSITION	The system shall capture the position of infiltrators.	UR_ARREST
FR_INFILTRATOR_MOVE	The system shall allow infiltrators to move.	UR_ARREST
FR_ARREST_COLLISION	The system shall detect a collision between an Auber and an infiltrator.	UR_ARREST
FR_TO_BRIG	The system shall allow the infiltrators to teleport to the brig.	UR_ARREST
FR_GOTTHROUGH_DYNAMIC	The system shall prevent a dynamic object to go through a dynamic object	UR_ARREST
FR_DESTROY_COLLISION	The system shall detect a collision between an infiltrator and a system of the space station	UR_DESTROY
FR_SAVE_LOAD	The system shall allow the user to save and reload the game.	UR_SAVE_LOAD
FR_DIFFICULTY	The system shall provide difficulty options that change the amount of NPCs loaded, and alter the time taken for infiltrators to destroy systems.	UR_DIFFICULTLY
FR_MUTEABLE_SOUND	The system must include a button that, when pressed, deactivates and reactivates the in-game music and sound effects	UR_MUTABLE_SOUND
FR_INFILTRATORS_ABILITY	The system should provide abilities to the infiltrator AIs that make the game harder	UR_INFILTRATORS_ABILITY
FR_AUBER_ABILITIES	The system should provide abilities that can be activated by the user to help the user catch infiltrators	UR_AUBER_ABILITES

Non-Functional Requirements Table

ID	Description	User Requirements
NFR_INSTRUCTIONS	We will give instructions for playing the game using clear and simple language.	UR_ACCESSIBILITY
NFR_SUPPORT	The game only needs support for Java as a standalone application	UR_USABILITY
NFR_SCREENSIZE	The game window must be malleable in size to allow for fullscreen mode and windowed mode.	UR_USABILITY
NFR_TIME	The game should only last 5-10 minutes to allow for many users to play the game in a shorter time.	UR_UX
NFR_DEMO	There should be a demo mode where the game plays itself to show the user how the game works.	UR_UX