Final Requirements

SEPRet Studios

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Colour Coding Key

   	Shall
   	Should
   	May
Example	Assessment 4 changes

User requirements

User ID	Description	Source	Priority	
UR_WIN	The player wins if they flood the ET fortresses before the ET fortresses and ET patrols destroy all of the player's fire trucks	Product brief	Shall	
UR_LOSE	The game is lost if all the player's fire trucks have been destroyed before the player has flooded all of the ET fortresses	Product brief	Shall	
UR_MINI_GAME	The game should include a minigame	Product brief	Should	
UR_MINI_ GAME_THEME	The minigame should be different in style, but aligned to the theme of the main game	Product brief	Should	
UR_REPAIR	Fire trucks can be repaired and refilled at the fire station	Product brief	Should	
UR_FIRE_ TRUCKS	There must be at least four fire trucks	Product brief	Shall	
UR_FORTRES S	There must be at least six fortresses	Product brief	Should	
UR_ SCALABILITY	The game should be able to be played on other platforms	Product brief	May	
UR_PATROLS	There should be at least 2 ET patrols that the user aims to avoid	Product brief	Should	

UR_DESTROY_STATION	At a point in the game the fire station should be destroyed	Product brief	Should	
UR_ENJOYABILITY	The game should be enjoyable to play	Product brief	May	
UR_PLAYABLE	The game must be playable Dependent on environmental assumptions (see bottom of document)	Product brief	Shall	
UR_PLAYER	The game must be a single-player game	Product brief	Shall	
UR_CODE	The game must be coded in Java	Interview	Shall	
UR_PC	It must be a PC game	Interview	Shall	
UR_TRUCK_SPACE	Fire trucks should not drive over each other or be able to occupy the same space.	Email Communication with Customer	Shall	
UR_POWER_UPS	There should be power ups that the fire engines can obtain	Communication with Customer	Shall	
UR_DIFFICULTY	There should be different levels of difficulty	Communication with Customer	Shall	
UR_SAVE_GAME	Games can be saved and resumed	Communication with Customer	Shall	

Functional requirements

ID	Description	Source	Priority	User ID

FR_FIRE_TRUCKS	Each fire truck must have a unique spec in terms of its speed, amount of damage it can take before being destroyed, the volume of water it can carry, the range and delivery rate of its water cannon	Product brief	Shall	UR_FIRE_TRUCKS
FR_FORTRESS	Each ET fortress must have a unique spec in terms of the range of its defensive weapons, the amount of damage these weapons can deal to Fire trucks over a period of time, and the volume of water it takes to flood	Product brief	Should	UR_FORTRESS
FR_WATER	Over time the amount of water needed to flood a fortress should increase	Interview	Should	UR_WIN
FR_MOBILITY	The user can move the fire trucks. Patrols and fire engines should be mobile; fortresses should be immobile	Product brief	Shall	UR_PLAYABLE

FR_AI	The ET patrols and ET fortresses are controlled by the computer AI	Product brief	Shall	UR_PLAYER
FR_TRUCK_ATTACK	Fire trucks can flood ET fortresses	Product brief	Shall	UR_FIRE_TRUCKS
FR_FORTRESS_ATTACK	ET fortresses attack trucks	Product brief	Shall	UR_FORTRESS
FR_ACCESS_MINIGAME	The mini game should be accessed from within the main game	Interview	Should	UR_MINI_GAME
FR_CONTROLS	There should be a screen that explains the controls	Interview	May	UR_PLAYABLE
FR_STATION_DESTROY	Fire trucks cannot be repaired or refilled after the fire station has been destroyed	Product brief	Should	UR_DESTROY_STATION

FR_MENU	There should be a menu screen from which the user has the option to start the game, see the controls or quit.	Email Communication with Customer	May	UR_PLAYABLE
FR_GAME_OVER	There should be a 'game over' screen once the game is ended telling the player if the game is won or lost.	Email Communication with Customer	May	UR_ENJOYABILITY
FR_SOUND	There could be sound effects with the game	Email Communication with Customer	May	UR_ENJOYABILITY
FR_SOUND_OFF	If there are sound effects, it should be possible to turn these off	Email Communication with Customer	Shall	UR_ENJOYABILITY
FR_ANIMATION	The fortresses and fire trucks should change appearance as they are destroyed	Email Communication with Customer	Should	UR_ENJOYABILITY
FR_REPAIR_REFILL	The fire trucks should repair and refill when at the fire station	Product Brief	Shall	UR_REPAIR
FR_POWER_UPS	Fire engines can obtain different power ups on the path	Communication with Customer	Shall	UR_POWER_UPS
FR_DIFFICULTY	The user shall be able to select either easy, medium or hard difficulty	Communication with Customer	Shall	UR_DIFFICULTY
FR_SAVE_GAME	The user shall be able to save games and later resume them	Communication with Customer	Shall	UR_SAVE_GAME

Non-functional requirements

ID	Description	Rational	Fit criteria	User ID
NF_PC	The game must be playable on engines/things that can be played on PC	Product brief	The game must use libraries /function that could be used on other platforms	UR_PLAYABLE
NF_RESPONSE	The game must respond quickly to user input	Improved user experience	Average response time >1 second, maximum response time >2 second	UR_ENJOYABILITY
NF_CONTROLS	The controls should be easy to learn	Prospective students should be able to play the game	The player should be able to grasp the controls in under 2 minutes	UR_ENJOYABILITY