

Requirement ID	Test Category ID	Code Method Reference	Status	Test Description	Expected Outcome
FR_CONTROLS	MAN_CONTROLS	N/A		Test that the controls screen is visible to the user.	The controls screen on start up and can be closed with the x button or 'C', it can then be re-opened with the button or 'C' again
FR_MENU	MAN_MENU	N/A		Test that the menu screen is both visible and easy to navigate.	When closing the controls screen then the menu screen appears, and clicking the play button starts the game
FR_GAME_OVER	MAN_GAME_OVER_WIN	N/A		Test that the game over 'win' screen is visible to the user if they've won.	When all of the fortresses are destroyed then the win screen appears
	MAN_GAME_OVER_LOSE	N/A		Test that the game over 'lose' screen is visible to the user if they've lost.	When all of the trucks are destroyed then the lose screen appears
FR_SOUND	MAN_SOUND	N/A		Test that the sound is audible for the user.	Music and sound effects are played throughout the game
FR_SOUND_OFF	MAN_SOUND_OFF	N/A		Test that it's possible for the sound to be turned off.	The music can be turned off by pressing the sound icon in the top right of the screen
FR_ANIMATION	MAN_HEALTH_BARS	N/A		Test that health bars are visible to the user.	When clicking on a truck/fortress, their health is then displayed in the stats area in the top left of the screen
FR_REPAIR_REFILL	STAT_REPAIR	FireStationTest.repairPassTest()		Test that the station will increase the health of the fire truck.	After repairing the truck the health should be higher
		FireStationTest.repairIncorrectPositionTest()		Test that the station will not repair the fire truck if it is not on the correct tile.	The HP of the firetruck stays the same as it isn't on the correct tile (the tile is not specified to be a 'bay tile')
		FireStationTest.repairAlreadyFullyRepairedTest()		Test that the station will not repair if the fire truck is already fully repaired.	The HP will not increase as it is already at maximum HP
	STAT_REFILL	FireStationTest.refillPassTest()		Test that the station will increase the reserve of the fire truck.	After refilling the value of the reserve for the truck should be higher
		FireStationTest.refillIncorrectPositionTest()		Test that the station will not refill the fire truck if it is not on the correct tile.	The reserve of the truck will not change as it isn't on the correct tile (the tile is not specified to be a 'bay tile')
		FireStationTest.refillAlreadyFullTest()		Test that the station will not refill if the fire truck already has a full tank.	The reserve will not increase as it is already at maximum reserve
FR_FIRE_TRUCKS	TRUC_SPEED	FireTruckTest.differentSpeedTest()		Test that the speed that trucks can travel around the map is different.	The 'Speed Truck' should have different 'Speed' stats
	TRUC_VOLUME	FireTruckTest.differentMaxVolumeTest()		Test that the volume of water held by each truck is different.	The max reserve should be different for all trucks
		FireTruckTest.checkTrucksFillToDifferentLevels()		Test that from 0 reserve, when refilling, there will be a point where one truck will become full whilst the other truck will not be.	After refilling, the 'Ocean Truck' should have a higher reserve than the 'Speed Truck' as 'Ocean Truck' has not yet reached capacity
	TRUC_HEALTH	FireTruckTest.differentMaxHPTest()		Test that the max health of the trucks are different.	The max HP for all four trucks should be different
		FireTruckTest.checkTrucksRepairToDifferentLevels()		Test that from 0 HP, when repairing, there will be a point where one truck will have full HP whilst the other truck will not.	The 'Speed Truck' should have higher HP after repairing than the 'Speed Truck'
	TRUC_RANGE	FireTruckTest.differentRangeTest()		Test that the range of the trucks are different.	The range for all four trucks should be different
		FireTruckTest.checkDifferentRangeTest()		Test that the range of the 'Ocean Truck' allows the truck to attack a fortress within its specified range and that the Speed Truck cannot.	The 'Ocean Truck' is within range of the fortress, where as 'Speed Truck' is not
	MAN_DESTROY	N/A		Test that the truck can be destroyed after being attacked enough for the HP to reach 0.	The truck should dissapear from the screen when its HP reaches 0
FR_TRUCK_ATTACK	TRUC_ATTACK	FireTruckTest.truckShouldDecreaseHealthOfFortress()		Test that when within range and has reserve left, a Fire Truck can attack a Fortress and it will decrease the health of that Fortress.	The health of the fortress should decrease after being attacked
		FireTruckTest.truckShouldDecreaseReserveWhenAttackingFortress()		Test that when within range and has reserve left, a Fire Truck can attack a Fortress and it will decrease the reserve of the Fire Truck.	The reserve of the truck should be less after being attacked
FR_MOBILITY	TRUC_MOVE	FireTruckTest.moveTest()		Test that the Fire Truck can move from one tile to another.	After specifying a path, the truck will move to that position
	FORT_HEALTH	FortressTest.allFortressesDifferentMaxHPTest()		Test that the max health of the fortresses are different.	The HP of all six fortresses is different
	FORT_RANGE	FortressTest.allFortressesDifferentRangeTest()		Test that the range of the fortresses are different.	The range of all six fortresses is different

FR_FORTRESS	FORT_RATE	FortressTest.allFortressesDifferentFireRateTest()		Test that the rate that fortresses can fire is different.	The fire rate of all six fortresses is different
	FORT_ATTACK	FortressTest.allFortressesDifferentAPTest()		Test that the AP of the fortresses are different.	The AP of all six fortresses is different
	MAN_DESTROY_FORTRESSES	N/A		Test that when the fortress has been attacked sufficiently for it to reach 0 HP, it is then destroyed.	When the health of a fortress reaches 0, it should no longer be visible to the user
FR_AI, FR_FORTRESS_ATTACK	FORT_ATTACK_WALMGATE	FortressTest.attackTruckFromWalmgateFortressDamageTest()		Test that the damage that the 'Walmgate Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 132
		FortressTest.attackTruckFromWalmgateFortressBeforeRangeBoundaryTest()		Test that the 'Walmgate Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'Walmgate fortress'
		FortressTest.attackTruckFromWalmgateFortressOnRangeBoundaryTest()		Test whether the 'Walmgate Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Walmgate fortress'
		FortressTest.attackTruckFromWalmgateFortressAfterRangeBoundaryTest()		Test whether the 'Walmgate Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Walmgate fortress'
	FORT_ATTACK_CLIFFORD	FortressTest.attackTruckFromCliffordFortressDamageTest()		Test that the damage that the 'Clifford Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 126
		FortressTest.attackTruckFromCliffordFortressBeforeRangeBoundaryTest()		Test that the 'Clifford Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'Cliffords fortress'
		FortressTest.attackTruckFromCliffordFortressOnRangeBoundaryTest()		Test whether the 'Clifford Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Cliffords fortress'
		FortressTest.attackTruckFromCliffordFortressAfterRangeBoundaryTest()		Test whether the 'Clifford Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Cliffords fortress'
	FORT_ATTACK_REVOLUTION	FortressTest.attackTruckFromRevolutionFortressDamageTest()		Test that the damage that the 'Revolution Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 138
		FortressTest.attackTruckFromRevolutionFortressBeforeRangeBoundaryTest()		Test that the 'Revolution Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'Revolution fortress'
		FortressTest.attackTruckFromRevolutionFortressOnRangeBoundaryTest()		Test whether the 'Revolution Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Revolution fortress'
		FortressTest.attackTruckFromRevolutionFortressAfterRangeBoundaryTest()		Test whether the 'Revolution Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Revolution fortress'
	FORT_ATTACK_TRAINSTATION	FortressTest.attackTruckFromTrainStationFortressDamageTest()		Test that the damage that the 'TrainStation Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 135
		FortressTest.attackTruckFromTrainStationFortressBeforeRangeBoundaryTest()		Test that the 'TrainStation Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'TrainStation fortress'
		FortressTest.attackTruckFromTrainStationFortressOnRangeBoundaryTest()		Test whether the 'TrainStation Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'TrainStation fortress'
		FortressTest.attackTruckFromTrainStationFortressAfterRangeBoundaryTest()		Test whether the 'TrainStation Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'TrainStation fortress'
		FortressTest.attackTruckFromMinsterFortressDamageTest()		Test that the damage that the 'Minster Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 129
		FortressTest.attackTruckFromMinsterFortressBeforeRangeBoundaryTest()		Test that the 'Minster Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'Minster fortress'

	FORT_ATTACK_MINISTER	FortressTest. attackTruckFromMinsterFortressOnRangeBoundaryTest()		Test whether the 'Minster Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Minster fortress'
		FortressTest. attackTruckFromMinsterFortressAfterRangeBoundaryTest()		Test whether the 'Minster Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Minster fortress'
	FORT_ATTACK_SHAMBLES	FortressTest. attackTruckFromShamblesFortressDamageTest()		Test that the damage that the 'Shambles Fortress' does to a Fire Truck is correct.	The HP of the "Speed Truck" after being attacked is 132
		FortressTest. attackTruckFromShamblesFortressBeforeRangeBoundaryTest()		Test that the 'Shambles Fortress' can attack a firetruck that is in it's range.	The HP of the 'Speed Truck' decreases when in the range of 'Shambles fortress'
		FortressTest. attackTruckFromShamblesFortressOnRangeBoundaryTest()		Test whether the 'Shambles Fortress' can attack a firetruck that is on the boundary of it's range.	The HP of the 'Speed Truck' decreases when on the boundary of the range of 'Shambles fortress'
		FortressTest. attackTruckFromShamblesFortressAfterRangeBoundaryTest()		Test whether the 'Shambles Fortress' cannot attack a firetruck that is out of it's range.	The HP of the 'Speed Truck' doesn't decrease when out of the range of 'Shambles fortress'
FR_ACCESS_MINIGAME	MAN_MINIGAME_LAUNCH	N/A		Test whether the minigame is accessed from within the main game.	The minigame screen loads and it starts playing.
FR_FORTRESS_IMPROVE	MAN_FORTRESS_IMPROVE	N/A		Test whether fortresses improve over time during the game.	The level of each fortress increases by 1 after a minute of gameplay.
FR_VIEW_TIMER	MAN_ATTACK_COUNTDOWN	N/A		Test whether there's a countdown showing the player how long is left until the fire station is destroyed.	A countdown clock counts from 15 minutes to zero minutes once the first attack has been made.
FR_PATROL_ATTACK	MAN_PATROL_ATTACK	N/A		Test whether ET patrols can attack fire trucks when in range.	ETs patrols should stop and shoot at any fire trucks that are in their range.
FR_STATION_DESTROY	MAN_NO_REPAIR_REFILL	N/A		Test that fire trucks can't repair and refill at the fire station when it's destroyed.	Fire trucks placed in the location of the destroyed fire station should not be repaired or refuelled.
UR_WIN	test_victory	N/A	Pass	Checks if victory is achieved when all fortresses are flooded	When all fortresses are flooded the victory screen is displayed to the user.
UR_LOSS	test_defeat	N/A	Pass	Checks if the loss screen is displayed when all fire trucks are destroyed	When all fire trucks are destroyed the loss screen is displayed to the user.
UR_MINI_GAME	test_minigame_exists	N/A	Pass	Checks if there is some form of mini game implemented in the game	At some point during the game, a minigame is opened up to be played by the user.
	test_minigame_theme	N/A	Pass	Checks if the implemented minigame has a different theme to the main game	The minigame has a different playstyle and appearance to the main game.
UR_REPAIR	test_repair_health	N/A	Pass	Checks if firetrucks can be repaired at the firestation	When in the firestation, a fire truck's health will increase until it is full.
	test_refill_water	N/A	Pass	Checks if firetrucks can be refilled at the firestation	When in the firestation, a fire truck's water supply will increase until it is full.
UR_FIRE_TRUCK	test_four_fire_trucks	N/A	Pass	Checks if there are at least four fire trucks implemented in the game	There are four separate fire truck's implemented in the game.
UR_FORTRESS	test_six_fortresses	N/A	Pass	Checks if there are at least six ET fortresses implemented in the game	There are six separate ET fortresses implemented in the game.
UR_PATROLS	test_patrols_exist	N/A	Pass	Checks if ET patrols have been implemented in the game	There are ET entities on the map separate to the fortresses.
	test_two_patrols	N/A	Pass	Checks if there are at least 2 ET patrols implemented in the game	There are at least 2 ET patrols on the map.
UR_DESTROY_STATION	test_firestation_destruction	N/A	Pass	Checks if the firestation is destroyed at some point during the game	15 minutes after the first ET fortress is destroyed, the fire station is destroyed.
UR_PLAYABLE	test_playable	N/A	Pass	Checks the game runs smoothly enough that it can be deemed playable on a low spec machine with Java installed	The game runs smoothly at 30 fps, 720p on a dual core, mobile processor.

UR_PLAYER	test_single_player	N/A	Pass	Checks if the game is purely single player	The entire game can be played without input from more than one person.
UR_CODE	test_java	N/A	Pass	Checks the game is coded in Java	The entire program is coded using Java.
UR_PC	test_pc_playable	N/A	Pass	Checks the game can be played on most desktop hardware and operating systems.	The program runs on Windows and Mac, and on Intel or AMD processors.
UR_TRUCK_SPACE	test_no_truck_overlap	N/A	Pass	Check fire trucks cannot occupy the same tile after leaving the firestation	Fire trucks can't occupy the same tile on the map after leaving the firestation.
UR_SAVES, FR_SAVE_GAME, FR_LOAD_GAME	test_saves	N/A	Pass	Check the game can be saved and reloaded at any time	The game can be paused and saved at any time, and that save can be reloaded to return to the same state.
UR_POWER_UPS, FR_POWER_UPS	test_power_ups	N/A	Pass	Check that power ups are implemented in the game	The game features 5 different forms of power ups that can be found and collected on the map.
UR_MANY_DIFFICULTIES, FR_DIFFICULTIES	test_difficulties	N/A	Pass	See if there are multiple possible difficulties	The game has multiple difficulty options that changes aspects of the game to make it easier or harder.
Key:					
Additions					
Changes					
Original					