Left Table

Item tested	Test method	Associated requirements	Test case objective	Input data	Expected output	Actual Output	Result
				W	Initial position of player ship increases in y value	[Expected output]	PASS
				W + A	Initial position of player ship increases in y value and decreases in x value	[Expected output]	PASS
				A	Initial position of player ship decreases in x value	[Expected output]	PASS
				A+S	Initial position of player ship decreases in y value and decreases in x value	[Expected output]	PASS
				S	Initial position of player ship decreases in y value	[Expected output]	PASS
			Test if the ship can be steered in the correct direction and at the appropriate speed, given corresponding user input.	S+D	Initial position of player ship decreases in y value and increases in x value	[Expected output]	PASS
				D	Initial position of player ship increases in x value	[Expected output]	PASS
Player RenderingManager	MT_PLAYER_MOVEMENT	UR_SHIP_CONTROL	The ship's sprite should change based on the direction it is travelling	D+W	Initial position of player ship increases in y value and increases in x	[Expected output]	PASS
Player RenderingManager CannonBall CollisionManager	MT_PLAYER_SHOOT	UR_SHIP_CONTROL FR_SHIP_KB_INPUT UR_FIRE_WEAPONS FR_PLAYER_AMMO NFR_BULLET_COLLISIONS	Test if the player is able to fire weapons. Left mouse button should enable the the ship to shoot from the ship to the position of the cursor	Left Mouse Button	Cannonball redners and travels from the player location to the position of the cursor when button was pressed / Despawn when out of screen / Despawn upon collision	[Expected output]	PASS
			Test if the player is able to fire weapons. Spacebar should enable the the ship to shoot in the current facing direction	Space	Cannonball spawns, travels from the player location to the position of the cursor when button was pressed / Despawn when out of screen / Despawn upon collision	Cannonball spawns slightly askew from the ship, due to the minimal effect on gameplay, remains the case	PASS
Player RenderingManager GameManager	MT_SHIP_DEAFULT_SPAWN	UR_GAME_INIT	Test the ship spawns in the correct default location	Run the game	Ship appear in correct default position	[Expected output]	PASS
GameManager College	MT_COLLEGE_NUMBER	FR_COLLEGE_ENTITY_TRACKING UR_COMPETING_COLLEGES	Test if a minimum of 3 colleges spawn on the map	Run the game	5 college entities highlighted in red should appear on the minimap	[Expected output]	PASS
NPCShip GameManager Faction	MT_INITIAL_COLLEGE_ALLY	UR_ALLEGIANCE_COLLEGE	Test the Halifax faction cannot be harmed by the player and allied ships cannot harm the player	Run the game and attack Halifax	Cannonballs travel through all buildings and ships associated with the Halifax faction	[Expected output]	PASS
				Set "shipCount" in GameSettings.json to 1	Each college is allocated 1 ally ship	[Expected output]	PASS
				Set "shipCount" in GameSettings.json to 3	Each college is allocated 3 ally ships	[Expected output]	PASS
NPCShip GameManager RenderingManager	MT_SHIP_COUNT	UR_HOSTILE_SHIP_ENCOUNTER UR_FRIENDLY_SHIP_ENCOUNTER	Test 3 ships are rendered per college	Set "shipCount" in GameSettings.json to 20	Each college is allocated ally ships	[Expected output]	PASS
	MT_BULLET_DODGE	UR_HOSTILE_SHIP_ENCOUNTER UR_BULLET_DODGE UR_SHIP_COMBAT	Test ships shoot and in a way that is able to avoided	Run the game and enter bounding radius of hostile ships	Enemy cannonballs should travel in an unaffected straight line	[Expected output]	PASS
NPCShip Cannonball	MT_HARM_ALLIES	UR_FRIENDLY_SHIP_ENCOUNTER	Test NPC ships cannot be destroyed by the player using cannonballs	Run the game and shoot at ally ships	Player cannonballs should travel through ally ships and not reduce their health	[Expected output]	PASS
GameManager CaptureManager	MT_CAPTURE_MENU	UR_HOSTILE_COLLEGE_CAPTURE	Test when a colleges' final building has been destroyed the capture menu is rendered	Play the game and destroy a college	Capture menu appears when all of a college's buildings are destroyed.	[Expected output]	PASS
		UR_HOSTILE_COLLEGE_CAPTURE	Test when a colleges' final building has been destroyed the capture menu is rendered	Play the game and capture a college	Choosing capture on the capture menu should result in the corresponding actions be applied	[Expected output]	PASS
	MT_CAPTURE_MENU_CHOICE	UR_HOSTILE_COLLEGE_CAPTURE	Test capture menu applies the appropriate change based on user input	Play the game and destroy a college	Choosing destroy on the capture menu should result in the corresponding actions be applied	[Expected output]	PASS
NPCShip GameManager CaptureManager	MT_SHIP_CAPTURE	UR_HOSTILE_COLLEGE_CAPTURE	Test hostile ships are removed upon college capture	Play the game and capture a college	When a college is captured their ships are removed	[Expected output]	PASS
	MT_CAPTURE_POINTS			Play the game and destroy a college	Points increase by a constant amount when a college is chosen to be destroyed	[Expected output]	PASS
GameManager CaptureManager	MT_DESROY_TEST	UR_HOSTILE_COLLEGE_CAPTURE FR_POINTS_TRACKING	Test capture increases player points when they destroy/ capture a college	Play the game and capture a college	Points increase by a constant amount when a college is chosen to be captured	[Expected output]	PASS
		FR_QUEST_RANDOMISE	Test if 2 games have different sequences of tests	Complete 2 games	Both games have different quests sequences	[Expected output]	PASS
Quest QuestManager GameManager	FR_QUEST_TRACKING FR_QUEST_OBJECTIVE	FR_BOSS_UNLOCK_TRACKING FR_GAME_WIN	Test if the game can be won when the final quest is completed	Complete a game	Game win screen upon completing final objective	[Expected output]	PASS
PirateGame	MT_UI_INITIALISE	UR_GAME_INIT FR_GAME_RESET FR_VIEWPORT_SCALING	Test all UI elements are rendered in the correct position and captions display the correct information / E.g. health UI element positioned in top left with value 100 / These should scale accordingly to the players viewport	Run the game	UI elements rendered in the correct positions and scaled accurately / Captions display the correct default values / When the camera moves, UI elements should remain in place without jittering	[Expected output]	PASS

Right Table

Test method	Associated requirement(s)	Test case objective	Result
MT_GAME_DURATION	UR_GAME_DURATION NFR_GAME_DURATION	Test if the game can be completed in under 5 minutes	PASS
MT_BOSS_UNLOCK	FR_BOSS_UNLOCK_TRACKING	Test if the game's final quest is not unlocked immediately	PASS
MT_LEARN_GAME	UR_LEARNING_CURVE NFR_EASE_OF_USE	Test there is adequate information provided to ensure the user is able to play the game without experience	PASS
MT_GAME_PLATFORM	FR_CROSS_PLATFORM_WIN FR_CROSS_PLATFORM_MAC FR_CROSS_PLATFORM_GNU_LINUX	Test if the game can be played on MacOS, Linux and Windows PCs	PASS
MT_APPROPRIATE_VISIUALS	UR_GAME_OBSERVABILITY NFR_COLOURBLINDNESS NFR_LARGE_ASSETS	Test if intractable items on the map can be identified without colour and are large enough that details are distinguished	PASS
MT_PLATFORM	UR_PLATFORM	Test if the game can be run on a standard laptop PC	PASS

Gamemanager	MT_POINT_INCREASE	FR_POINTS_TRACKING FR_POINTS_UPDATE	Test player points increase with time	Run the game	In the top left point should increase per second starting from 0 when a new game is created	*[Expected output]*	PASS
Gamemanager EnhancementManager CaptionManager	MT_POWERUP_PICKUP	UR_POWERUPS FR_POWERUPS	Test that power-ups spawn on the map and are removed when the user enters the pick up radius	Run the game and encounter a powerup	Upon pickup the appropriate stat should be updated with indication from a caption update	*[Expected output]*	PASS
Player CollisionManager PhysicsManger RigidBody Ship	MT_SHIP_COLLISIONS	NFR_SHIP_COLLISIONS	Test the player's ship collides with other ships	Play the game and collide into a ally ship	Player is unable to pass through ally ship and rebounds	*[Expected output]*	PASS
				Play the game and collide into a hostile ship	Player is unable to pass through hostile ship and rebounds	*[Expected output]*	PASS
Player CollisionManager PhysicsManger RigidBody WorldMap	MT_MAP_COLLISIONS	NFR_WORLD_COLLISIONS	Test the player's ship collides with land borders	Play the game and collide into a land border of the map	Player is unable to pass through the land border and rebounds	*[Expected output]*	PASS
Player CollisionManager PhysicsManger RigidBody Boulder SeaMonster	MT_OBSTACLE_COLLISIONS	NFR_WORLD_COLLISIONS UR_OBSTACLE_ENCOUNTER	Test the player's ship collides with boulders and sea monsters Player health/ armour should decrease	Play the game and collide into a boulder	Player is unable to pass through the boulder and rebounds Armour should decrease	*[Expected output]*	PASS
				Play the game and collide into a sea monster	Player is unable to pass through the boulder and rebounds Health should decrease	*[Expected output]*	PASS
Player GameManager	MT_GAME_LOSE	UR_GAME_LOSE	Test when the players health is reduced to 0, the game ends with the correct screen	Play the game and lose	EndScreen is displayed, correct game over message displayed	*[Expected output]*	PASS