**Feature Checklist for CGP503 – Mobile Game Fundamentals**

Please write down your name and Student ID.

Below is a table. The feature is written on the left column and the right column is left empty. If you have implemented that feature and it’s clearly demonstrable in the final product, then place a checkmark in the right column. **(✓)**

Mobile Developer: \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

Student ID: \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

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| 1. The game begins with the Management Phase. (0.2%) |  |
| 1. Management Phase and Naval Combat Phase have their own Scenes (0.2%) |  |
| 1. The player should be able to enter the “Market” or the “Shipyard” (0.2%) |  |
| 1. There should be an option to do a “Sea Raid”, from the Management Scene (0.2%) |  |
| 1. The game should navigate smoothly from Management to Naval Combat if the player wishes to do so, and the enemies spawned should follow the rules of Sea Raid in appendix. (1%) |  |
| 1. The game should play a unique music track when we are in Management Phase. (0.2%) |  |
| 1. The game should play a unique music track when we are in Naval Combat Phase. (0.2%) |  |
| 1. The game should play sound effects when a ship is shooting cannonballs, when a cannonball hits the sea and sinks, when a ship sinks, when a ship collides with another ship, when cargo is picked up and when a cannonball hits a ship. (0.5%) |  |
| 1. The player should be taken to Management Phase once he is sunk. (0.3%) |  |
| 1. The player should navigate to Management Phase 10 seconds after destroying all his enemies. (1%) |  |
| 1. The player should lose 25% of gold and all cargo if his ship is destroyed. (1%) |  |
| 1. All physics in the game must obey Physics2D rules. No Box Colliders or 3D Raycasts. (2%) |  |
| 1. The Sloop should be smaller than our ship. (0.33%) |  |
| 1. The Caravel should be like our ship in size. (0.33%) |  |
| 1. The Brigantine should be bigger than our ship in size. (0.33%) |  |
| 1. Winning Condition: All enemy Ships are sunk. (1%) |  |
| 1. Losing Condition: Our Ship is sunk. (1%) |  |
| 1. Our ship has its’ own “**Storage**” Stat. (0.3%) |  |
| 1. All ships should have their own “**Hull Health”** Stat and should work as stated. (0.4%) |  |
| 1. The player can clearly see the Hull Health left at any time (GUI). (0.3%) |  |
| 1. Our ship has its’ own “**Sail”** Stat. (0.2%) |  |
| 1. The player can clearly see the Sail Health left at any time (GUI). (0.4%) |  |
| 1. The Sail Health stat should work as intended in the design. (0.4%) |  |
| 1. All ships should have a “**Base Cannonball Damage**” Stat and should work as stated. (1%) |  |
| 1. All ships should have their own “**Quality**” stat and should work as stated in design. (1%) |  |
| 1. The Naval Combat level should be an Open-Sea level with no boundaries. (0.5%) |  |
| 1. The camera view point is top-down. (0.5%) |  |
| 1. The camera should always follow the ship in regards to the position. Ie, the ship should always be in the middle of the screen. (1%) |  |
| 1. The camera should NOT follow the ship in regards to rotation. Ie, if the ship turns around, we want to see it turning, rather than turning the camera along with it. (1%) |  |
| 1. The ship is always sailing towards the direction its’ facing. (1%) |  |
| 1. There should be visible feedback that the ship is actually moving forward. This should be given in the form of a background, or particle system (0.5%) |  |
| 1. The player should be able to turn the ship left and right using touch input. (1%) |  |
| 1. The ship’s sprite should give the impression that it is turning. (0.5%) |  |
| 1. The ship should be able to shoot 3 cannonballs left or right. (0.5%) |  |
| 1. The cannonballs should be shot in an arc with 45 degrees difference from each other. (0.5%) |  |
| 1. Left and Right cannonball attacks have their own unique 3 second cooldown. (0.3%) |  |
| 1. The user should be able to see a unique live cooldown for each cannonball attack. (0.3%) |  |
| 1. The user should not be able to shoot cannonballs as long as they are in cooldown. (0.4%) |  |
| 1. The enemy ships should be destroyed when their health reaches zero. (0.5%) |  |
| 1. The player should sink if his hull health reaches zero. (0.5%) |  |
| 1. Cannonballs should be able to inflict damage to enemy ships when they collide. (0.3%) |  |
| 1. Cannonballs should be able to inflict damage to enemies based on the damage formula given. (1%) |  |
| 1. Cannonballs that haven’t reached enemy ships for 1.75 seconds should sink. (0.3%) |  |
| 1. Cannonballs that have either sunk or hit enemies should be removed from the game. (0.3%) |  |
| 1. Each Cannonball should have its’ own graphic (0.1%) |  |
| 1. If we collide with an enemy, we take 50% damage of our **max health**. This can happen once every 10 seconds. (1%) |  |
| 1. When we take damage from enemies, we have a 20% chance to apply this to **Sail** Health. (0.5%) |  |
| 1. Enemies don’t have Sail stat, so they always take the damage to their **Hull** stat. (0.5%) |  |
| 1. The game should have sound effects played when the user is clicking on a button, and when an upgrade is taking place. (0.5%) |  |
| 1. The upgrade system should have a GUI helping the player choose an upgrade as well as the current upgrade level of each of the ship’s stats, and the costs. (0.3%) |  |
| 1. The player should also know how much gold he/she has at the moment at the aforementioned GUI. (0.2%) |  |
| 1. The player should be able to use up his gold to upgrade his ship in the 4 different categories. (0.3%) |  |
| 1. The gold cost should be increasing in a linear fashion as each upgrade is getting applied. (0.4%) |  |
| 1. Each upgrade should have its own unique cost. (0.3%) |  |
| 1. Each upgrade should be reflected in gameplay clearly. (1%) |  |
| 1. Our player can clearly see the Current and Maximum Cargo based on Storage Stat at any time. (0.2%) |  |
| 1. The cargo should appear within a radius of the destroyed ship. (0.3%) |  |
| 1. The “**cargo drop radius”** can be as big or small as required but should be realistic, ie it shouldn’t be x3 times bigger than the ship itself. (0.3%) |  |
| 1. The cargo appeared should follow the Drop Rules, depending on each ship type. (1%) |  |
| 1. The cargo should stay in water for 20 seconds and then sink. (0.2%) |  |
| 1. The player should be awarded gold based on Drop Rules after an enemy ship is sunk. The gold received should obey the cargo rules found in the appendix. (1%) |  |
| 1. The player should be able to pull cargo as soon as the cargo is within a radius. (0.25%) |  |
| 1. The “**cargo** **pull radius**” can be as big or as small as required by should be realistic, ie it shouldn’t be x2 times bigger than the ship itself. (0.25%) |  |
| 1. The player should be able to pick up cargo as soon as the cargo touches the ship. (0.25%) |  |
| 1. The player should only be able to pick up cargo if he has space left. (0.25%) |  |
| 1. The market should have its’ own GUI the player can interact with, with a “Sell All” button. (0.5%) |  |
| 1. The game should have sound effects played when the user is clicking on a button, and when cargo is exchanged for gold. (0.5%) |  |
| 1. A player should be able to trade-in all cargo with one button click, and exchange all of it for gold. (1%) |  |
| 1. There should be visual indication as to how many types of cargo we currently have in our storage (GUI). (1%) |  |
| 1. The enemy ships should be able to sail towards our ship. (0.5%) |  |
| 1. The enemy ships should start turning once they have reached a specific distance from our ship, so they can move on to shoot. (1%) |  |
| 1. Once the enemy ships have clear sight of our ship, they start shooting cannonballs. (1%) |  |
| 1. The enemy ships only shoot 1 cannonball instead of 3. (0.2%) |  |
| 1. The enemy ships have a 3 second cooldown between their attacks. (0.3%) |  |