**User Stories and Acceptance Criteria** (Red Player’s Perspective)

1. Grid and Ship Placement.

As a player, I want a grid to place my ships so that I can strategize my fleet positioning.

• The grid must be 10x10 in size (or adjustable based on game settings).

• The grid must allow placement of multiple ships without overlap.

• The player must be able to view and adjust their ship placements before confirming.

As a player, I want to place my ships either horizontally or vertically so that I follow the game rules.

• Ships can only be placed in straight lines (no diagonal placement).

• Ships cannot extend beyond the grid boundaries.

• The player must receive a confirmation prompt when a ship is successfully placed.

As a player, I want to see my own grid with my placed ships so that I can track my fleet’s status.

• The player’s grid must display all placed ships in their correct positions.

• Ships should be visually distinct to differentiate from empty spaces.

• The grid should remain visible throughout the game, with updates reflecting hits and misses.

2. Attacks and Tracking

As a player, I want a second grid to track my attacks so that I know which coordinates I have already guessed.

• The attack grid must be separate from the player’s ship placement grid.

• The attack grid must update to show hits and misses after each attack.

• The player must not be able to select the same coordinate twice in a game.

As a player, I want to select a coordinate on my opponent’s grid so that I can launch an attack.

• The game must prompt the player to input a coordinate each turn.

• The input must be in a valid format and within grid boundaries.

• The system must confirm the selection before processing the attack.

As a player, I want to receive a hit or miss response from the blue or other color player so that I know the result of my attack.

• The game must provide an immediate response after an attack.

• “Hit” coordinates should be marked with a red indicator.

• “Miss” coordinates should be marked with a white indicator.

As a player, I want to track which ships I have hit so that I can refine my attack strategy.

• The attack grid must keep a history of all successful hits.

• The game should indicate if a hit has affected a previously hit ship to assist in targeting.

• If a ship is sunk, it should be clearly distinguished from a single hit.

3. Ship Damage and Sinking

As a player, I want each of my ships to have a number of hit points so that they can be gradually destroyed.

• Each ship type must have a fixed number of hit points based on its size.

• A ship should remain in play until all of its hit points are depleted.

• The player must be able to see which of their own ships have been hit but not their opponent’s.

As a player, I want to be informed when I sink an opponent’s ship so that I can track my progress toward victory.

• The opponent must notify the red player when they have successfully sunk an opponent’s ship.

• The notification should include the ship type (e.g., “You sank my Destroyer!”).

4. Winning Conditions and Game End

As a player, I want to win the game when all of my opponent’s ships are sunk so that there is a clear victory condition.

• when all the opponent ships are destroyed, he should inform and end the game

• The final board state should be revealed, showing all ship placements.