Use Case Scenarios -

Use Case	**Take Shot**
Actors	Player
Preconditions	• The game is in progress • It is the player's turn to take a shot • The player is presented with the opponent's game board
Main Flow	1. The player selects a target on the opponent's game board where they want to take a shot 2. The system validates the shot to ensure it has not been fired before and is within the bounds of the game board 3. If the shot hits an opponent's ship, the system marks it as a hit 4. If the shot misses all ships, the system marks it as a miss 5. The system updates the game status, informing the player whether it was a hit or a miss
Postconditions	• The shot has been taken, and the game status has been updated • If the shot was a hit, the player may get another turn • If the shot was a miss, it becomes the opponent's turn
Alternatives	• If the player attempts to shoot outside the grid of the game board, the system notifies the player and asks them to choose a valid target • If the player tries to shoot a location already fired upon, the system informs the player and prompts them to choose a different target
Exceptional flow	• If all ships of the opponent are sunk after the shot, the system declares the player as the winner and ends the game • If a specific number of turns have been reached, and neither player has won, the system declares the game as a draw
Notes	• The "Take Shot" use case is an important part of the game, as it determines the results of the game

Use Case	**Place Ship**
Actors	Player
Preconditions	• The game is in the setup phase • The player has chosen the ship placement option • The player is presented with their own game board
Main Flow	1. The player selects a ship from their available fleet to place on the game board 2. The system displays the player's game board with a grid for ship placement 3. The player chooses the starting position (top-left coordinate) for the selected ship 4. The player indicates the orientation of the ship (horizontal or vertical) 5. The system validates the chosen placement 6. If the placement is valid, the system places the ship on the designated positions on the game board 7. Steps 1-6 are repeated for each ship in the player's fleet
Postconditions	• All player ships are successfully placed on the game board • The game proceeds to the next phase, such as the computer placing its ships or the start of the gameplay
Alternatives	• If the player attempts to place a ship in an invalid position, the system notifies the player and asks them to choose a different position • The player may have the option to reset the ship placements and start over • The player gets to review the ship placement and change the orientation before starting the game
Notes	• The "Place Ship" use case is crucial for initialization of the game and plays a significant role in strategic gameplay • This scenario outlines the steps a player takes to position their fleet on the game board before the actual gameplay begins