

COMP-361 Project  
Battleships – User Interface Sketch

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## Descriptions:

### 1.1: Application (Sketch 2.1):

Our implementation of Battleships is a web application. The dimensions of the application are 900px by 600px. At all times, there is a navigation bar of dimensions 900px by 35px on the top of the page. The remaining 900px by 565px constitute the game frame.

### 1.2: Navigation Bar (Sketch 2.2):

The navigation bar allows the user to, at any time, access the options menu to customize the game, obtain help by reading a short tutorial about the game and access an in-game chat system which allows him to communicate and/or send messages to other players which may or may not be online at the time. Anything which is not in the navigation bar is part of the game frame.

### 1.3: Login (Sketch 2.3):

Upon loading the application, you are introduced to a simple page consisting of e-mail/password fields which allow you to login with a previously created account. Furthermore, there is a button that allows you to create a new account.

An account includes a username, a password and an e-mail address. The e-mail address is used as the unique identifier and, as such, you only need the e-mail/password combo in order to log in. This also means that multiple players/accounts can have the same username.

### 1.4: Menu (Sketch 2.4):

Upon logging in, you see both your game statistics and your games that are currently in progress. At any given moment, each player is limited to having a maximum of 4 games open. If a user has space, there will also be the option to start a new game. In order to close a certain game, the user must surrender.

It is important to note that games in Battleships do not have to be saved manually. Like various online Chess applications, a game is asynchronous in the sense that it persists on the server-side even though players may not be connected to it.

As such, upon playing a move, the state of your game is automatically saved on the server. This allows two opponents to play even when both are not logged on. Time limits can be set on turns. For example, an opponent can be given up to 48h to respond before they automatically forfeit the game.

Clicking on a previously created game will naturally bring you to that game and clicking “New Game” will bring you to the Lobby.

### **1.5: Lobby (Sketch 2.5):**

The lobby is composed of a “lobby chat” in which all players currently in the lobby can communicate via text messages. The list of players that are in the Lobby are listed. In order to start a game, you must challenge another player by double-clicking on their name.

On your screen, this will create a window which will indicate that your challenge is pending. Also, this will create a window on the opponent's screen in which he may choose to accept or reject your challenge. Naturally, in the case that he accepts, you will both enter the newly created game. Otherwise, both windows disappear.

### **1.6: Map configuration (Sketch 2.6):**

The map configuration stage allows both players to agree on a coral reef configuration. At any point, a player may regenerate the map and obtain a new configuration. If both players agree on the current map, they progress to the next stage. In order to agree on a map, they may also use the chat box that is provided for them.

### **1.7: Boat configuration (Sketch 2.7):**

In this stage, a player will have to select the starting position of his boats. Available boats are provided in a list and it is possible to drag a boat from the list to a valid dock position. A valid dock position is defined as any square adjacent to the base, as long as the boat is facing the enemy base. Once both players are ready, the game begins!

### **1.8: Playing the game:**

The game begins with your boats docked. At any point in the game, you are able to see where the coral reef and the opponent's base are, as well as your own units. Furthermore, each one of your units has a radar which grants vision near the unit. The blue region is the aggregated vision of all your radars. **(Sketch 2.8)**

As your ships move around, you are able to see various disjoint regions of the ocean. Furthermore, enemy ships that fall within the range of your vision will be (potentially) partially visible, allowing you to see only the parts of those ships which fall in your range. It is possible for you to be able to see only the tip of an enemy ship and thus being unable to identify it properly. **(Sketch 2.9)**

In order to perform any action, you must use the action ribbon. Upon selecting any unit, you are able to access that unit's action ribbon which contains all its abilities. After selecting the action you wish to play, you must confirm your action using the confirm action button. **(Sketch 2.10)**

You must select some unit to perform an action. If you select your base, your only ability is to repair a boat that is currently docked. In order to do this, you must select the “Repair” ability and then

click on the boat you wish to repair. Of course, this ability is greyed out if no boat is currently docked and you are therefore unable to use this ability. Another use of selecting the base is that it displays the aggregated attack range of all your boats. **(Sketch 2.11)**

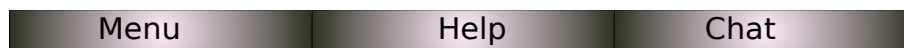
If a boat is selected, all its abilities will appear in the action ribbon. This usually at least includes “Move”, “Rotate” and “Cannon”. Selecting an ability, before confirming it, will give visual hints to the player. For weapons, the attack range for that specific boat is shown as a red region. For “Move” and “Rotate”, respectively, areas that you may move/rotate to are highlighted in orange. **(Sketches 2.12 to 2.14)**

## Sketches:

### 2.1: Application



### 2.2: Navigation bar



### 2.3: Login

Welcome to

Battleships

E-mail:

Enter here

Password:

Enter here

Login

New account

2.4: Menu

Games:

game in progress with: userx

number of turns: x

units lost: x units destroyed: x

goto game

game in progress with: userx

number of turns: x

units lost: x units destroyed: x

goto game

game in progress with: userx

number of turns: x

units lost: x units destroyed: x

goto game

open game slot

New Game

Welcome <Username>

100

ships lost

20 losses to mines

20 losses to hcannons

60 losses to cannons

20 instances of repair

200

ships destroyed

1000 cannons fired

1000 hcannons fired

1000 torpedos fired

1000 mines dropped

1000 mines taken

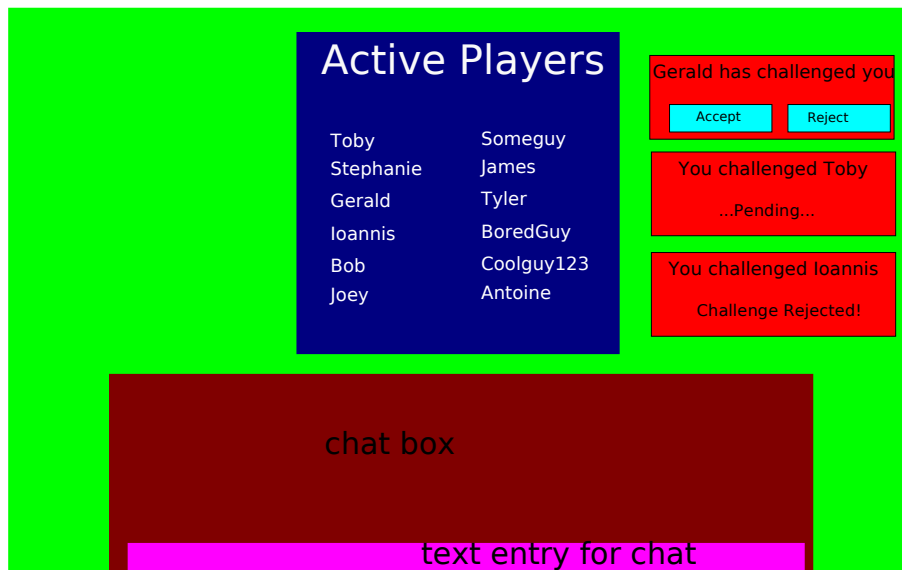
20

games won

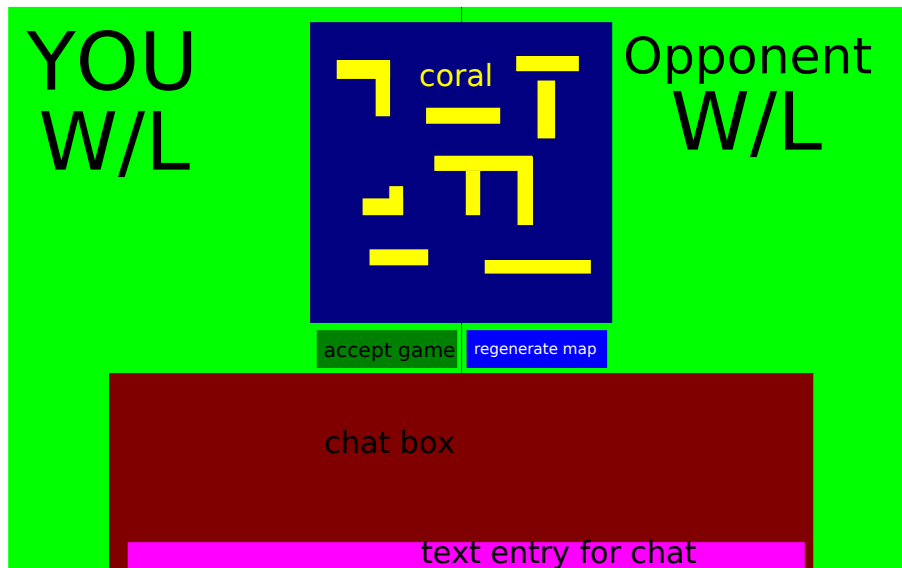
10 games lost

0 games tied

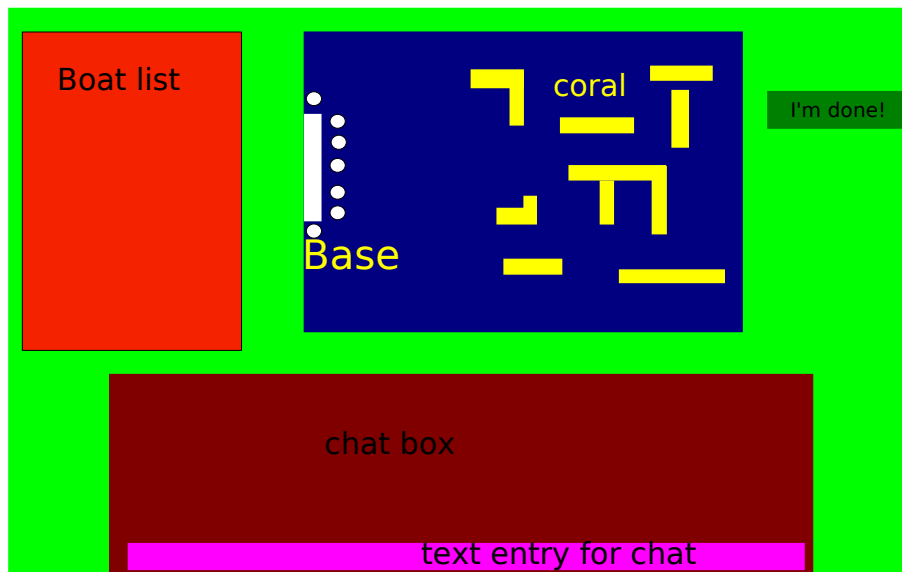
2.5: Lobby



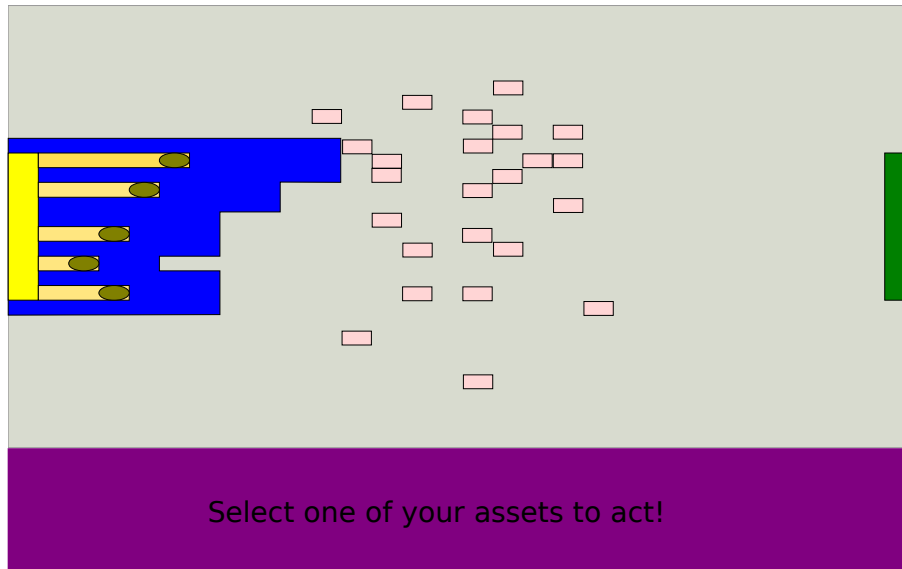
## 2.6: Map configuration



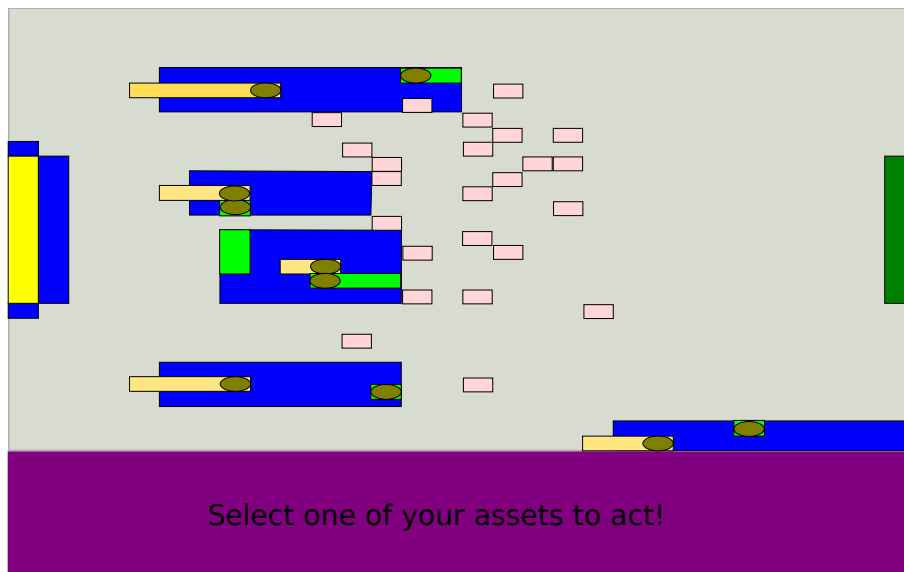
## 2.7: Boat selection



## 2.8: Game Start



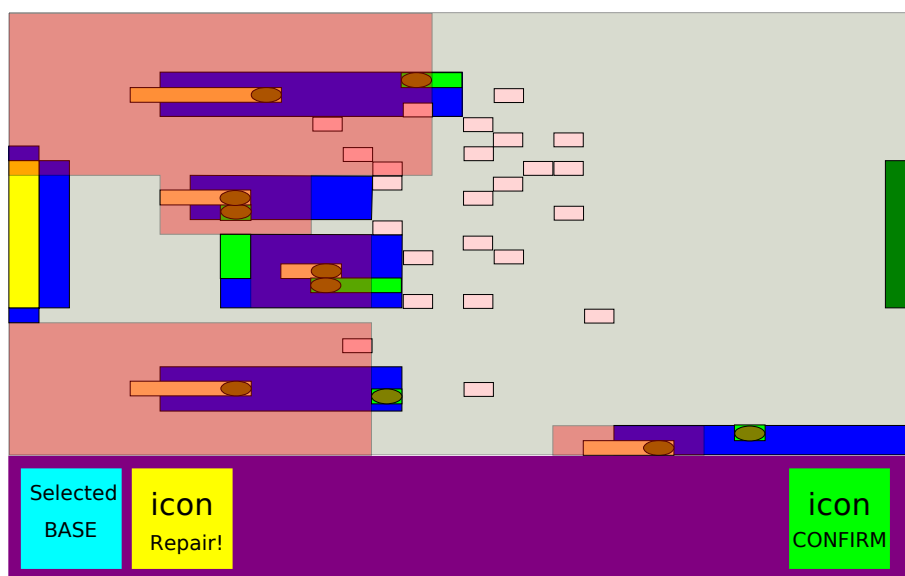
## 2.9 Separate Ships:



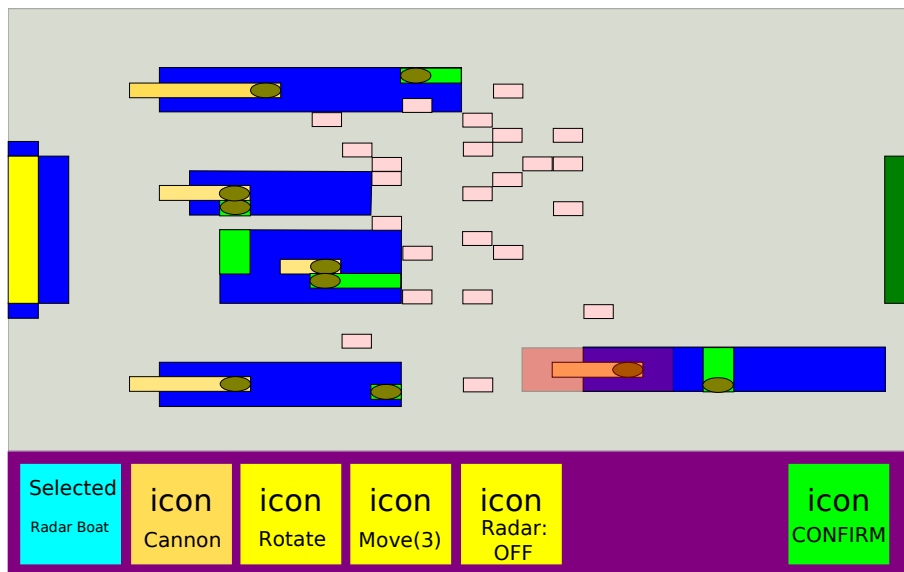
## 2.10: Action ribbon



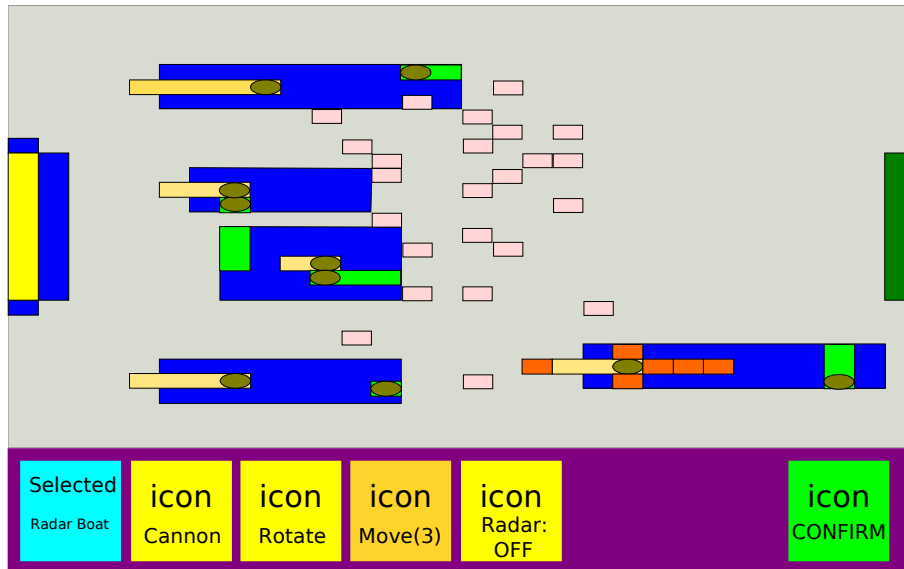
## 2.11: Global attack range



## 2.12: Single unit attack



2.13: Single unit move:



2.14: Single unit rotate:



