**Assignment 1**

**Step1:** Print Ocean Map

* Declare the map 10x10

a. Use two-dimensional array

b. To store single character use Character

array

c. Create various variables d. Data type used:

> 1-player, 2-computer, !, x,

* **Print Welcome Message**

Welcome to Battle Ships game \*\*\*\*

* **Print Column index (Range 0-9)**

a. Use For loop for column index

b. Continuous numbers- index is

one by one

* **Print row index (0 space|0)**

Repeat step 4 for index 0 to 9

a. Use Nested Loop to create 2-D b.For each row and column

**Print rowindex space Irowindex**

0123456789

0| |0

1| |1

2| |2

3| |3

4| |4

5| |5

6| |6

7| |7

8| |8

9| |9

0123456789

**Step 2:** Deploy Player Ships

• Player Ship: Represented as @

Initial count=1

• Prompt user for x co-ordinate

1.Valid entry: Only Once

2. invalid Entry: Repeat until valid entry

* Get x co-ordinate input
* If x co-ordinate is between 0 and 9 go to next step else go to bullet 2 While (0>= x
* co-ordinate <=9) . Prompt user for y co-ordinate
* Get input for y co-ordinate
* If input is between 0 to 9 go forward
* Else go to step 5
* If location is empty deploy the ship and
* increase player ship count by 1
* Else prompt for x co-ordinate Repeat above steps for 5 ships using loop.
* **Execute Print Map**

**Step 3:** Deploy Computer Ships

Don't display anything

**Step 4:** Battle

* 1st Its Players Turn

-- Missed target

! - Sunk computer's ship i

x-Sunk Player's ship

* **Computer Turn**

- Sunk computer's ship.

x-Sunk Player's ship

-Computer Missed

**Step 5:** **Declare the result**

If computer ships =0 then Display

Hooray! You won the battle 1

Else Display

Sorry, you lost the battle