

How has your program changed from planning to coding to now?

Planning Stage

- Identify Inputs and Outputs:
 - INPUT: User input a number
 - Output: Outputs by verifying if the user's number matches with the program number to win the game.

Design the Structure:

- Verifying the users number through having (If statements)

(The planning had changed Through)

Design the structure Change:

- Having to verify the number through (If statement) then having a break statement if users guess is correct.
- Make the (if Statement) Repeat to give the user the ability to continuously guess until the right answer.

```

Random random = new Random();
int X = random.nextInt(20) + 1;

Scanner userInput = new Scanner(System.in);

System.out.println("please import a number between 1 and 20");

int X1 = userInput.nextInt();

```

My code uses the variables X as the random number generated by the computer then we need the users number by having the variable called X1 that holds the user number through the scanner line. The userInput allows the user to choose a number between (1-20) using the scanner in the variable called (random) . Then the program reads the user guess and then stores it as a variable Called (X1)

```

while (X1 != 0)
{
    if (X1 == X)
    {
        System.out.println("You got the number correct!");
        break;
    } else {
        System.out.println("You've guessed it incorrectly. Please try again.");
    }

    System.out.println("Please guess the number, hint it is between 1-20 : ");

    X1 = userInput.nextInt();
}

```

My code uses (for loop) that allows the program to continue the user to guess the number until the right answer then the program ends as the program X1 equals to X. Then the break sequence activates then ends the game and gives congratulations to the user. Each time the user guesses incorrectly the program gives a hint like (it is between 1-20).

```
    }  
    System.out.println("Game Over!");  
}
```

When the user guesses correctly the program outputs the message of “game over”.