

# **Object Oriented Programming**

Course Code: CS3CO23

Mini project

BY

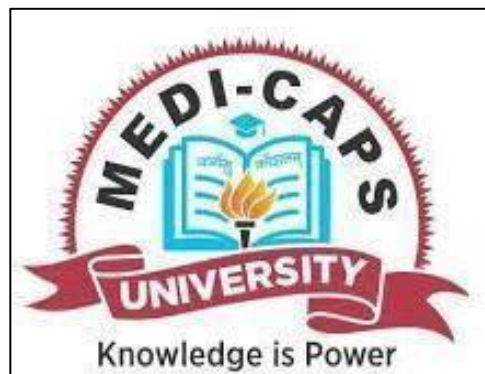
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**Topic :- Number guessing game**

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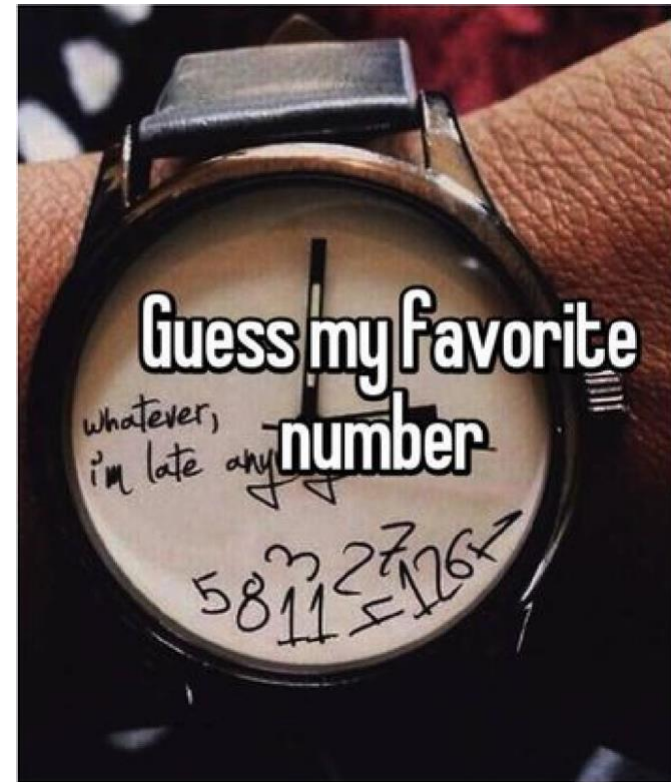


# Number guessing game

- Pick a random number between 1 and 10
- Ask the user to guess a number
- Compare- verify that it is a number
- Output: You win or Try again (need a conditional loop)

Hints:

```
char someChar = int myInt = atoi(&someChar);
```



int isdigit(int c); Parameters c This is the character to be checked. Return Value  
This function returns nonzero value if c is a digit,

```
// Java program for the above approach
```

```
import java.util.Scanner;
```

```
public class GFG {
```

```
    // Function that implements the
```

```
    // number guessing game
```

```
    public static void
```

```
guessingNumberGame()
```

```
{
```

```
    // Scanner Class
```

```
    Scanner sc = new Scanner(System.in);
```

```
    // Generate the numbers
```

```
    int number = 1 + (int) (100
```

```
        * Math.random());
```

```
    // Given K trials
```

```
int K = 5;
```

```
int i, guess;
```

```
System.out.println(
```

```
    "A number is chosen"
```

```
    + " between 1 to 100."
```

```
    + "Guess the number"
```

```
    + " within 5 trials.");
```

```
// Iterate over K Trials
```

```
for (i = 0; i < K; i++) {  
  
    System.out.println(  
  
        "Guess the number:");  
  
    // Take input for guessing  
  
    guess = sc.nextInt();  
  
    // If the number is guessed  
  
    if (number == guess) {
```



```
        System.out.println(

            "Congratulations!"

            + " You guessed the number.");

        break;

    }

    else if (number > guess

        && i != K - 1) {

        System.out.println(

            "The number is "
```

```
        + "greater than " + guess);

    }

    else if (number < guess

        && i != K - 1) {

        System.out.println(

            "The number is"

            + " less than " + guess);

    }

}
```

```
if (i == K) {  
  
    System.out.println(  
  
        "You have exhausted"  
  
        + " K trials.");  
  
    System.out.println(  
  
        "The number was " + number);  
  
}  
  
}
```

```
// Driver Code

public static void

main(String arg[])

{

    // Function Call

    guessingNumberGame();

}

}
```

# Example: A Game of Chance

- Craps simulator

- Rules

- Roll two dice

- 7 or 11 on first throw, player wins



- 2, 3, or 12 on first throw,  
player loses

- 4, 5, 6, 8, 9, 10 - value  
becomes player's "point" -

Player must roll his point  
before rolling 7 to win <sup>t</sup>-

Prompt the user how much to bet  
on each throw

- Verify that they enter a number