

# BACHELOR OF COMPUTER APPLICATIONS

## **Introduction to program using c** **ASSIGNMENT - III**

---

### QUESTION - II

Submitted by  
Aaditya Raj Singh

Enrollment Number  
AU23E1002

Submission Date  
September 25, 2023

# INDEX

Introduction: .....	1
Code Explanation: .....	2
Initializing Variables: .....	2
Welcome Message:.....	2
For Loop: .....	3
User Input: .....	3
Check User Guess:.....	3
Correct Guess: .....	3
Maximum Attempts Reached: .....	3
End: .....	4
TEST CASE .....	4
Flowchart.....	4

# GUESS THE SECRET NUMBER GAME

## Introduction:

This C program is a simple text-based game where the user attempts to guess a randomly generated secret number between 1 and 10. The program provides a maximum of three attempts for the user to guess the correct number. It gives feedback on each guess, informing the user whether their guess is too high or too low. If the user guesses correctly within the allowed attempts, they receive a congratulations message. If not, the program reveals the secret number.

# Code Explanation:

## Initializing Variables:

- **magicNumber**: A randomly generated secret number between 1 and 10.
- **maxA**: The maximum number of attempts allowed (set to 3).
- **userNumber**: Stores the user's input for their guess.
- **a**: A loop counter used to track the number of attempts.

## Welcome Message:

Displays a welcome message, informing the user of the game rules and the number of attempts allowed.

For Loop:

Initiates a for loop that runs for a maximum of three attempts.

User Input:

Prompts the user to enter their guess for the secret number.

Check User Guess:

Compares the user's guess with the magicNumber to determine if it's correct.

Correct Guess:

- If the user's guess is correct:

- Displays a congratulations message, including the number of attempts taken.

- Exits the program.

Maximum Attempts Reached:

- If the user's guess is incorrect and the maximum number of attempts (maxA) is reached:

- Displays a message informing the user that they've reached the maximum number of attempts.
- Reveals the correct magicNumber.
- Exits the program.

End:

Marks the end of the program.

## TEST CASE

```
!! WELCOME TO THE GUESS SECRET NUMBER GAME !!

You have 3 attempts to guess the secret number between 1 and 10.
Attempt 1:
Enter your guess Number : 5
Try again. Your guess is too high.
Attempt 2:
Enter your guess Number : 3
Try again. Your guess is too high.
Attempt 3:
Enter your guess Number : 2
Congratulations! You guessed the right number in 3 attempts.
```

## Flowchart

