

NUMBER GUESSING GAME USING **JAVA**

PROGRAM:

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

public class Main {

    public static void main(String[] args) {
        // Create a Random object to generate a random number
        Random random = new Random();

        int randomNumber = random.nextInt(100) + 1; // Generates a random
number between 1 and 100

        // Create a Scanner object to get user input
        Scanner scanner = new Scanner(System.in);

        // Set a predefined limit for attempts
        int maxAttempts = randomNumber;
        int attempts = 0;

        System.out.println("Welcome to the Number Guessing Game!");
        System.out.println("Try to guess the number between 1 and 100.");

        // Start the game loop
```

```
while (attempts < maxAttempts) {  
    System.out.print("Enter your guess: ");  
    int userGuess = scanner.nextInt();  
    attempts++;  
  
    // Compare the user's guess with the generated number  
    if (userGuess == randomNumber) {  
        System.out.println("Congratulations! You guessed the correct number  
in " + attempts + " attempts.");  
        break; // Exit the loop if the guess is correct  
    } else if (userGuess < randomNumber) {  
        System.out.println("Too low! Try again.");  
    } else {  
        System.out.println("Too high! Try again.");  
    }  
  
    // Check if the maximum number of attempts is reached  
    if (attempts == maxAttempts) {  
        System.out.println("Sorry, you've reached the maximum number of  
attempts. The correct number was: " + randomNumber);  
    }  
}  
  
// Close the scanner to prevent resource leak  
scanner.close();  
}
```