Task 2

2.Build a program that generates a random number and challenges the user to guess it. The program should prompt the user to input their guess, compare it to the generated number

```java
import java.util.Random;

import java.util.Scanner;


public class NumberGuessingGame {
    public static void main(String[] args) {
        // Create Random object to generate a number

        Random random = new Random();

        int numberToGuess = random.nextInt(100) + 1; // Random number between 1 and 100

        int userGuess = 0;

        int attempts = 0;


        Scanner scanner = new Scanner(System.in);

        System.out.println("Welcome to the Number Guessing Game!");

        System.out.println("I have chosen a number between 1 and 100. Try to guess it!");
```

```java
        // Loop until the user guesses correctly
        while (userGuess != numberToGuess) {
            System.out.print("Enter your guess: ");
            userGuess = scanner.nextInt();
            attempts++;

            if (userGuess < numberToGuess) {
                System.out.println("Too low. Try again.");
            } else if (userGuess > numberToGuess) {
                System.out.println("Too high. Try again.");
            } else {
                System.out.println("Correct! 🎉 You guessed it in "
                    + attempts + " attempts.");
            }
        }

        scanner.close();
    }
}
```