HANGMAN GAME USING JAVA

Program:

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

public class Main {
    public static void main(String[] args) {
        String[] words = {"java", "hangman", "programming", "computer",
"algorithm"};

        Random random = new Random();
        String selectedWord = words[random.nextInt(words.length)];
        char[] displayWord = new char[selectedWord.length()];
        for (int i = 0; i < displayWord.length; i++) {
            displayWord[i] = '_';
        }

        int incorrectGuesses = 0;
        int maxIncorrectGuesses = 6; // Maximum incorrect guesses allowed

        Scanner scanner = new Scanner(System.in);

        System.out.println("Welcome to Hangman!");

        while (incorrectGuesses < maxIncorrectGuesses) {
```

```
            System.out.println("\nCurrent word: " + String.valueOf(displayWord));
            System.out.print("Enter a letter: ");
            char guess = scanner.next().toLowerCase().charAt(0);

            boolean found = false;
            for (int i = 0; i < selectedWord.length(); i++) {
                if (selectedWord.charAt(i) == guess) {
                    displayWord[i] = guess;
                    found = true;
                }
            }

            if (!found) {
                incorrectGuesses++;
                displayHangman(incorrectGuesses);
            }

            if (String.valueOf(displayWord).equals(selectedWord)) {
                System.out.println("Congratulations! You guessed the word: " +
selectedWord);
                break;
            }
        }

        if (incorrectGuesses == maxIncorrectGuesses) {
            System.out.println("Sorry, you ran out of attempts. The correct word
was: " + selectedWord);
        }
```

```
        scanner.close();
    }

    private static void displayHangman(int incorrectGuesses) {
        // Display a simple hangman figure based on the number of incorrect guesses
        System.out.println("Incorrect guesses: " + incorrectGuesses);
        switch (incorrectGuesses) {
            case 1:
                System.out.println("   +---+");
                System.out.println("   |   |");
                System.out.println("       |");
                System.out.println("       |");
                System.out.println("       |");
                System.out.println("       |");
                break;
            case 2:
                System.out.println("   +---+");
                System.out.println("   |   |");
                System.out.println("   O   |");
                System.out.println("       |");
                System.out.println("       |");
                System.out.println("       |");
                break;
            case 3:
                System.out.println("   +---+");
                System.out.println("   |   |");
```

```
    System.out.println("   O   |");
    System.out.println("   |   |");
    System.out.println("       |");
    System.out.println("       |");
    break;
case 4:
    System.out.println("   +---+");
    System.out.println("   |   |");
    System.out.println("   O   |");
    System.out.println("  /|   |");
    System.out.println("       |");
    System.out.println("       |");
    break;
case 5:
    System.out.println("   +---+");
    System.out.println("   |   |");
    System.out.println("   O   |");
    System.out.println("  /|\\  |");
    System.out.println("       |");
    System.out.println("       |");
    break;
case 6:
    System.out.println("   +---+");
    System.out.println("   |   |");
    System.out.println("   O   |");
    System.out.println("  /|\\  |");
    System.out.println("  /    |");
```

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