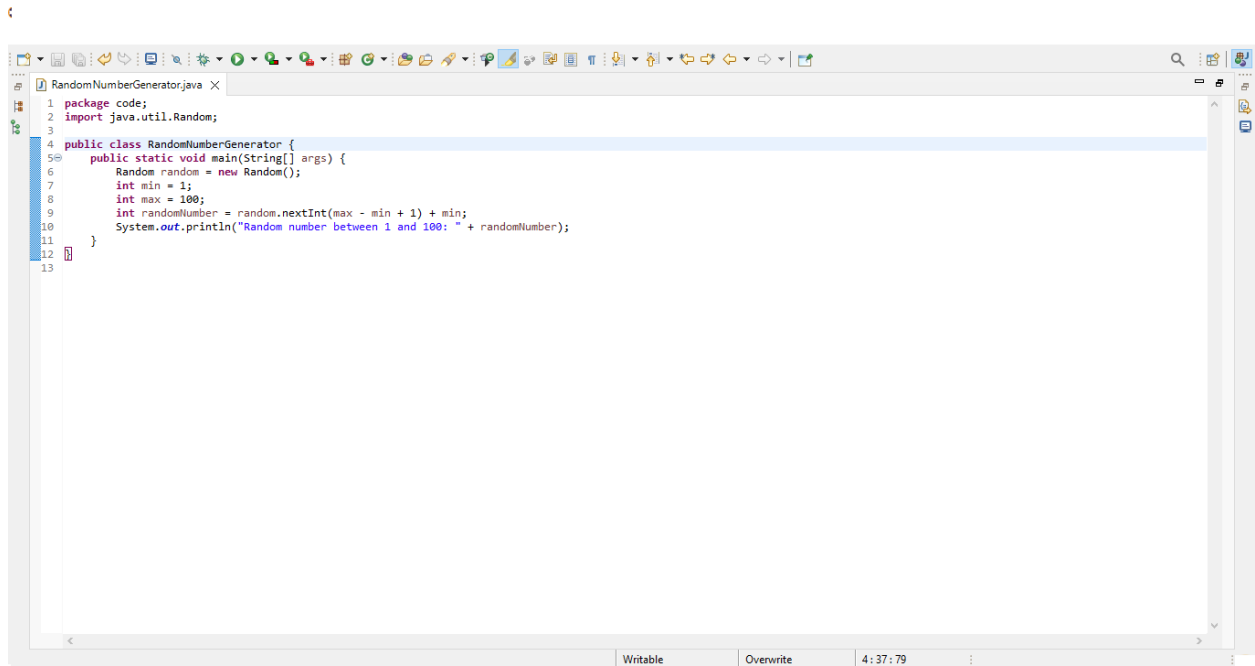


TASK-1 NumberGame

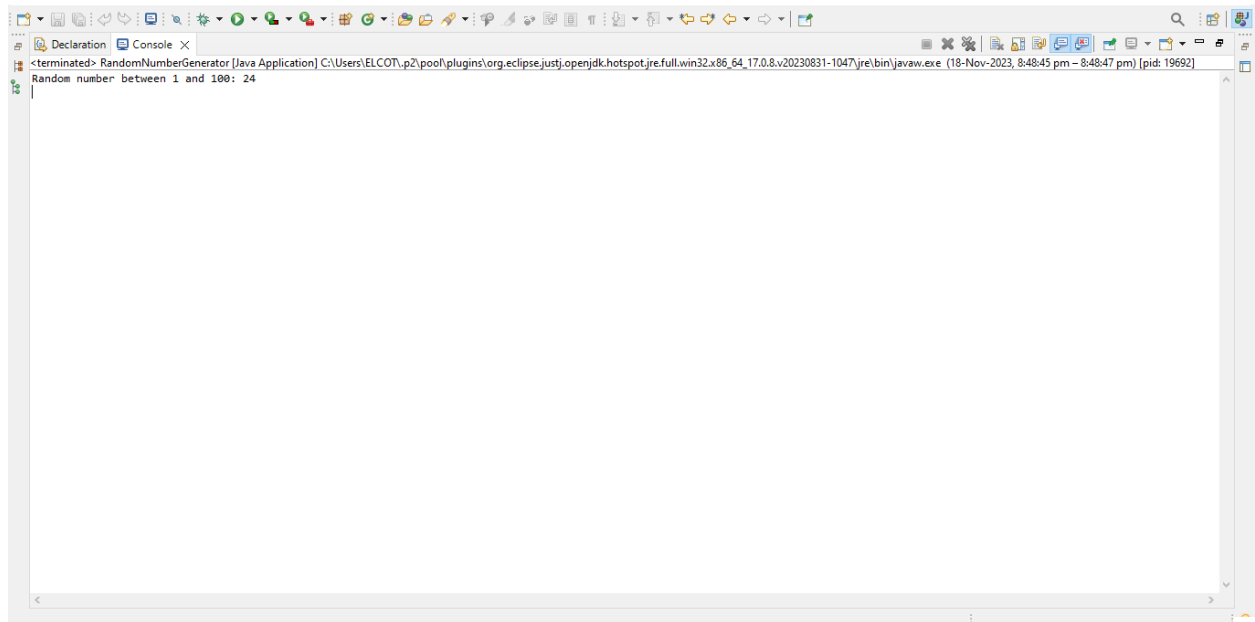
1.RandomNumber:..



The screenshot shows the Eclipse IDE with a single file named 'RandomNumberGenerator.java' open. The code is as follows:

```
1 package code;
2 import java.util.Random;
3
4 public class RandomNumberGenerator {
5     public static void main(String[] args) {
6         Random random = new Random();
7         int min = 1;
8         int max = 100;
9         int randomNumber = random.nextInt(max - min + 1) + min;
10        System.out.println("Random number between 1 and 100: " + randomNumber);
11    }
12 }
13
```

Output

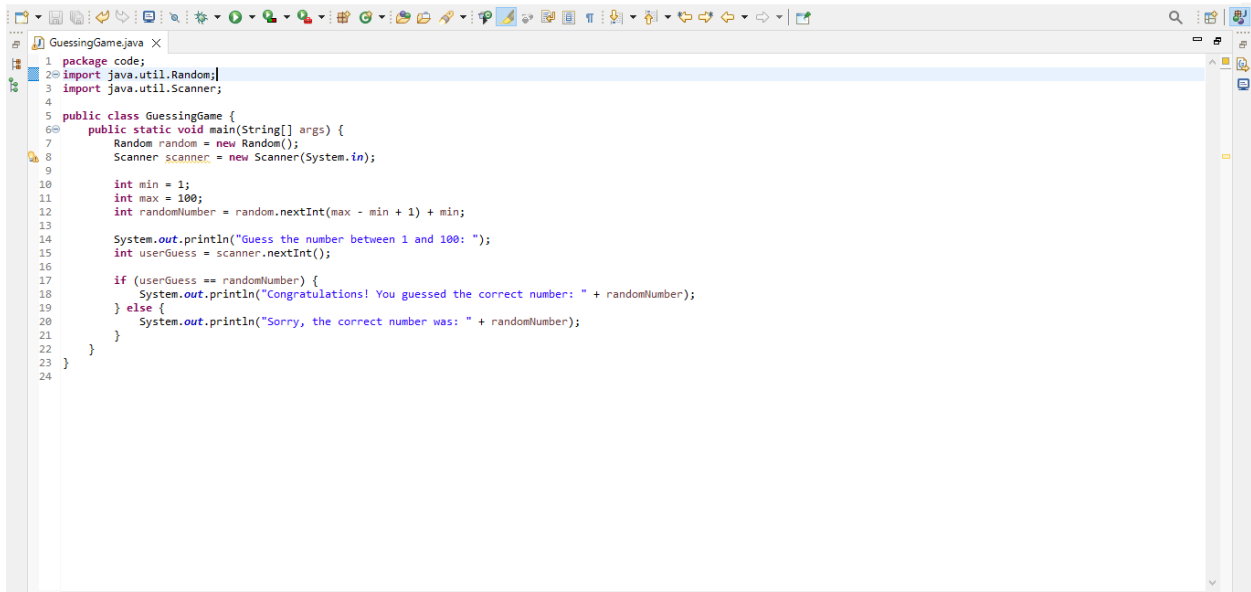


The screenshot shows the Eclipse IDE's console window. The output of the application is displayed as follows:

```
<terminated> RandomNumberGenerator [Java Application] C:\Users\ELCOT\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (18-Nov-2023, 8:48:45 pm - 8:48:47 pm) [pid: 19692]
Random number between 1 and 100: 24
```

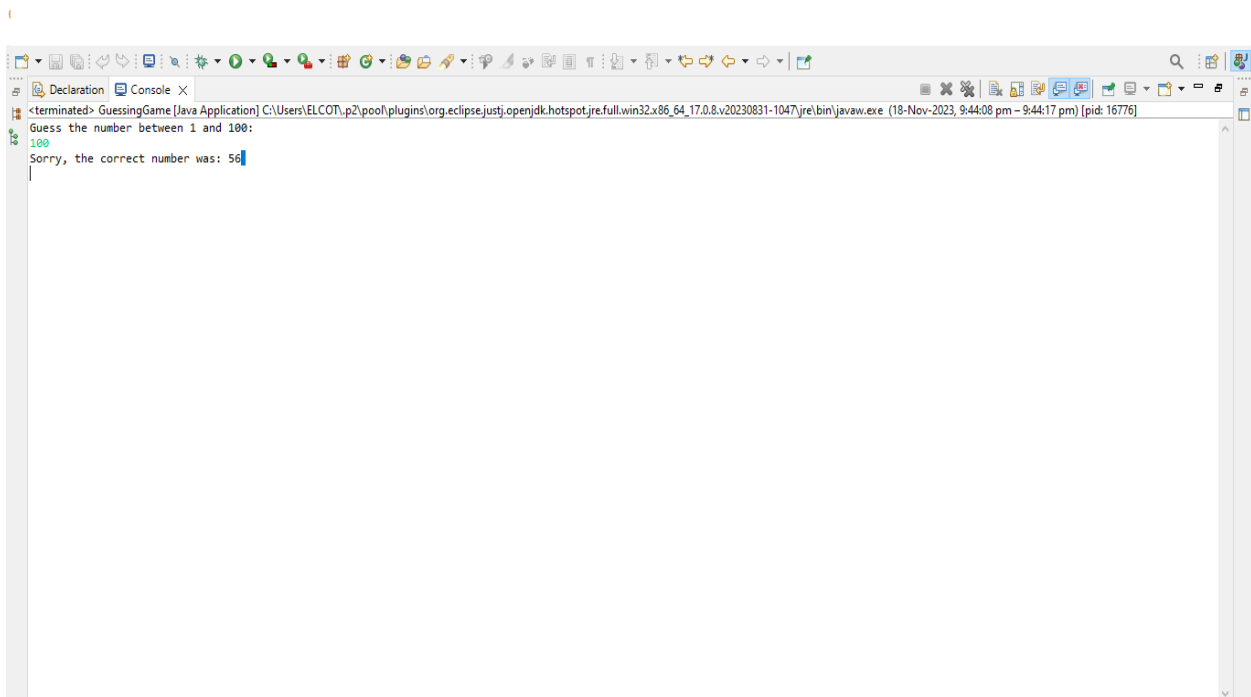
TASK-1 NumberGame

2.generaternumber:



```
1 package code;
2 import java.util.Random;
3 import java.util.Scanner;
4
5 public class GuessingGame {
6     public static void main(String[] args) {
7         Random random = new Random();
8         Scanner scanner = new Scanner(System.in);
9
10        int min = 1;
11        int max = 100;
12        int randomNumber = random.nextInt(max - min + 1) + min;
13
14        System.out.println("Guess the number between 1 and 100: ");
15        int userGuess = scanner.nextInt();
16
17        if (userGuess == randomNumber) {
18            System.out.println("Congratulations! You guessed the correct number: " + randomNumber);
19        } else {
20            System.out.println("Sorry, the correct number was: " + randomNumber);
21        }
22    }
23 }
24 }
```

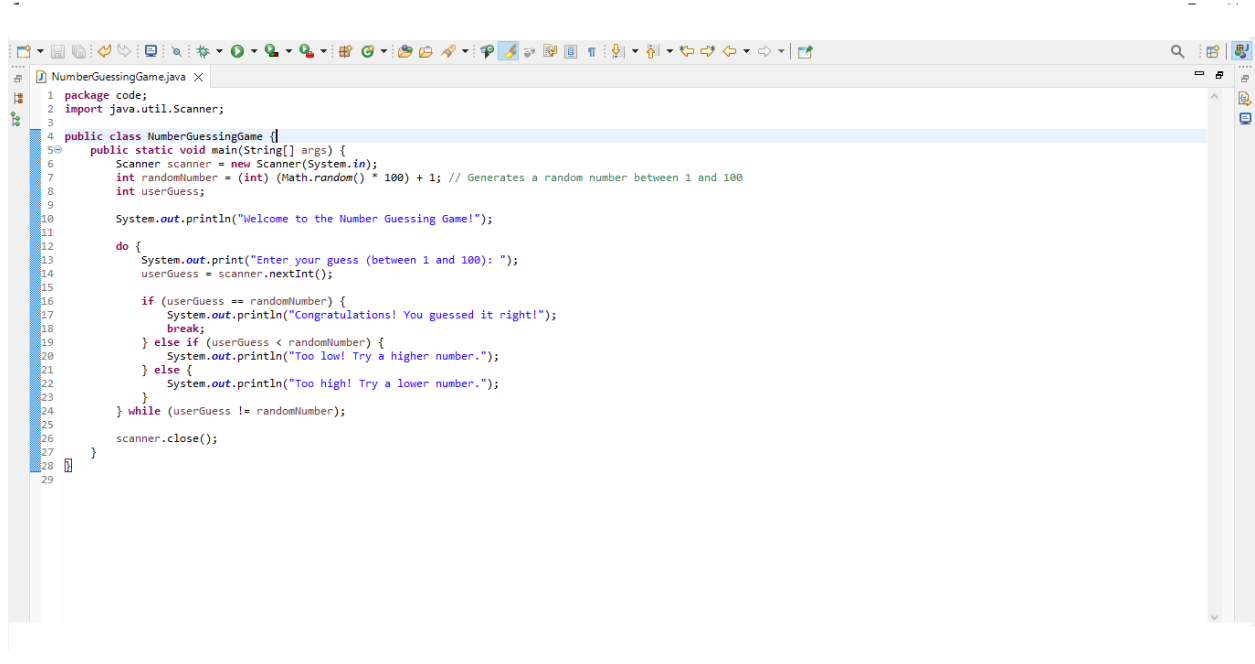
Output:



```
<terminated> GuessingGame [Java Application] C:\Users\ELCOT_p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.17.0.8.v20230831-1047\jre\bin\javaw.exe (18-Nov-2023, 9:44:08 pm - 9:44:17 pm) [pid: 16776]
Guess the number between 1 and 100:
100
Sorry, the correct number was: 56
```

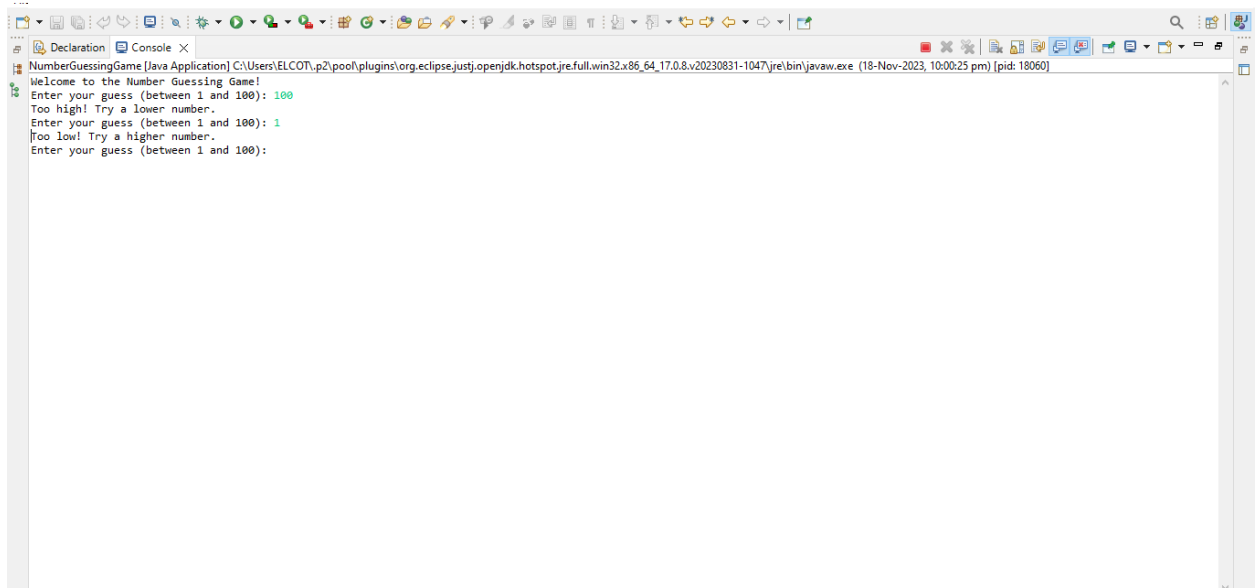
TASK-1 NumberGame

3.generaternumber and feedback:



```
1 package code;
2 import java.util.Scanner;
3
4 public class NumberGuessingGame {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         int randomNumber = (int) (Math.random() * 100) + 1; // Generates a random number between 1 and 100
8         int userGuess;
9
10        System.out.println("Welcome to the Number Guessing Game!");
11
12        do {
13            System.out.print("Enter your guess (between 1 and 100): ");
14            userGuess = scanner.nextInt();
15
16            if (userGuess == randomNumber) {
17                System.out.println("Congratulations! You guessed it right!");
18                break;
19            } else if (userGuess < randomNumber) {
20                System.out.println("Too low! Try a higher number.");
21            } else {
22                System.out.println("Too high! Try a lower number.");
23            }
24        } while (userGuess != randomNumber);
25        scanner.close();
26    }
27 }
28
29
```

Output:



```
NumberGuessingGame [Java Application] C:\Users\ELCOT\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.8.v20230831-1047\jre\bin\javaw.exe (18-Nov-2023, 10:00:23 pm) [pid: 18060]
Welcome to the Number Guessing Game!
Enter your guess (between 1 and 100): 100
Too high! Try a lower number.
Enter your guess (between 1 and 100): 1
Too low! Try a higher number.
Enter your guess (between 1 and 100):
```

4.correct

TASK-1 NumberGame

```
1 package code;
2 import java.util.Scanner;
3
4 public class NumberGuessingGame1 {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         int randomNumber = (int) (Math.random() * 100) + 1; // Generates a random number between 1 and 100
8         int userGuess;
9         boolean correctGuess = false;
10
11         System.out.println("Welcome to the Number Guessing Game!");
12
13         while (!correctGuess) {
14             System.out.print("Enter your guess (between 1 and 100): ");
15             userGuess = scanner.nextInt();
16
17             if (userGuess == randomNumber) {
18                 System.out.println("Congratulations! You guessed it right!");
19                 correctGuess = true;
20             } else if (userGuess < randomNumber) {
21                 System.out.println("Too low! Try a higher number.");
22             } else {
23                 System.out.println("Too high! Try a lower number.");
24             }
25         }
26
27         scanner.close();
28     }
29 }
30
```

output:

```
NumberGuessingGame1 [Java Application] C:\Users\ELCOT\p2\poo\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (19-Nov-2023, 10:19:44 am) [pid: 9376]
Welcome to the Number Guessing Game!
Enter your guess (between 1 and 100): 1
Too low! Try a higher number.
Enter your guess (between 1 and 100): 98
Too high! Try a lower number.
Enter your guess (between 1 and 100):
```

5.limit:

TASK-1 NumberGame

```
1 package code;
2 import java.util.Scanner;
3
4 public class NumberGuessingGame2 {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         int maxAttempts = 5; // Set the maximum number of attempts
8         int attempts = 0;
9         int randomNumber = (int) (Math.random() * 100) + 1; // Generates a random number between 1 and 100
10        int userGuess;
11        boolean correctGuess = false;
12
13        System.out.println("Welcome to the Number Guessing Game!");
14
15        while (attempts < maxAttempts && !correctGuess) {
16            attempts++;
17            System.out.print("Attempt " + attempts + " - Enter your guess (between 1 and 100): ");
18            userGuess = scanner.nextInt();
19
20            if (userGuess == randomNumber) {
21                System.out.println("Congratulations! You guessed it right!");
22                correctGuess = true;
23            } else if (userGuess < randomNumber) {
24                System.out.println("Too low! Try a higher number.");
25            } else {
26                System.out.println("Too high! Try a lower number.");
27            }
28        }
29
30        if (!correctGuess) {
31            System.out.println("Sorry, you've reached the maximum attempts. The number was: " + randomNumber);
32        }
33
34        scanner.close();
35    }
36 }
37
```

Output:

```
NumberGuessingGame2 [Java Application] C:\Users\ELCOT\p2\pooth.plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.17.0.8.v20230831-1047\jre\bin\javaw.exe (19-Nov-2023, 11:18:49 am) [pid: 9004]
Welcome to the Number Guessing Game!
Attempt 1 - Enter your guess (between 1 and 100): 100
Too high! Try a lower number.
Attempt 2 - Enter your guess (between 1 and 100): 1
Too low! Try a higher number.
Attempt 3 - Enter your guess (between 1 and 100): 1
Too low! Try a higher number.
Attempt 4 - Enter your guess (between 1 and 100): 87
Too high! Try a lower number.
Attempt 5 - Enter your guess (between 1 and 100): |
```

TASK-1 NumberGame

6.program:

```
1 package code;
2 import java.util.Scanner;
3
4 public class NumberGuessingGame3 {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         int maxAttempts = 5; // Set the maximum number of attempts
8         int attempts = 0;
9         int randomNumber = (int) (Math.random() * 100) + 1; // Generates a random number between 1 and 100
10        int userGuess;
11        boolean correctGuess = false;
12
13        System.out.println("Welcome to the Number Guessing Game!");
14
15        while (attempts < maxAttempts && !correctGuess) {
16            attempts++;
17            System.out.print("Attempt " + attempts + " - Enter your guess (between 1 and 100): ");
18            userGuess = scanner.nextInt();
19
20            if (userGuess == randomNumber) {
21                System.out.println("Congratulations! You guessed it right!");
22                correctGuess = true;
23            } else if (userGuess < randomNumber) {
24                System.out.println("Too low! Try a higher number.");
25            } else {
26                System.out.println("Too high! Try a lower number.");
27            }
28        }
29
30        if (!correctGuess) {
31            System.out.println("Sorry, you've reached the maximum attempts. The number was: " + randomNumber);
32        }
33
34        scanner.close();
35    }
36 }
37 }
```

output:

```
<terminated> NumberGuessingGame3 [Java Application] C:\Users\ELCOT\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.17.0.8.v20230831-1047\jre\bin\javaw.exe (19-Nov-2023, 11:34:43 am - 11:35:06 am) [pid: 3332]
Welcome to the Number Guessing Game!
Attempt 1 - Enter your guess (between 1 and 100): 76
Too high! Try a lower number.
Attempt 2 - Enter your guess (between 1 and 100): 98
Too high! Try a lower number.
Attempt 3 - Enter your guess (between 1 and 100): 88
Too high! Try a lower number.
Attempt 4 - Enter your guess (between 1 and 100): 44
Too low! Try a higher number.
Attempt 5 - Enter your guess (between 1 and 100): 70
Too high! Try a lower number.
Sorry, you've reached the maximum attempts. The number was: 68
```

TASK-1 NumberGame

7.program:

```
1 package code;
2 import java.util.Scanner;
3
4 public class NumberGuessingGame4 {
5     public static void main(String[] args) {
6         Scanner scanner = new Scanner(System.in);
7         boolean playAgain;
8
9         do {
10             int maxAttempts = 5; // Set the maximum number of attempts
11             int attempts = 0;
12             int randomNumber = (int) (Math.random() * 100) + 1; // Generates a random number between 1 and 100
13             int userGuess;
14             boolean correctGuess = false;
15
16             System.out.println("Welcome to the Number Guessing Game!");
17
18             while (attempts < maxAttempts && !correctGuess) {
19                 attempts++;
20                 System.out.print("Attempt " + attempts + " - Enter your guess (between 1 and 100): ");
21                 userGuess = scanner.nextInt();
22
23                 if (userGuess == randomNumber) {
24                     System.out.println("Congratulations! You guessed it right!");
25                     correctGuess = true;
26                 } else if (userGuess < randomNumber) {
27                     System.out.println("Too low! Try a higher number.");
28                 } else {
29                     System.out.println("Too high! Try a lower number.");
30                 }
31             }
32
33             if (!correctGuess) {
34                 System.out.println("Sorry, you've reached the maximum attempts. The number was: " + randomNumber);
35             }
36
37             System.out.print("Do you want to play again? (yes/no): ");
38             String playChoice = scanner.next().toLowerCase();
39             playAgain = playChoice.equals("yes");
40         }
41     }
42 }
```

Output:

```
NumberGuessingGame4 (1) [Java Application] C:\Users\ELCOT\AppData\Local\Temp\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (19-Nov-2023, 11:40:00 am) [pid: 11164]
Welcome to the Number Guessing Game!
Attempt 1 - Enter your guess (between 1 and 100): 50
Too low! Try a higher number.
Attempt 2 - Enter your guess (between 1 and 100): 70
Too low! Try a higher number.
Attempt 3 - Enter your guess (between 1 and 100): 98
Too high! Try a lower number.
Attempt 4 - Enter your guess (between 1 and 100): 100
Too high! Try a lower number.
Attempt 5 - Enter your guess (between 1 and 100): 44
Too low! Try a higher number.
Sorry, you've reached the maximum attempts. The number was: 76
Do you want to play again? (yes/no): n
```