

```
4 // and open the template in the editor.
5 */
6 package com.mycompany.module3lab;
7
8 /**
9  * @author behlt
10  */
11
12 public class SeparateDigits {
13     //Calculate the integer part of the quotient when integer a is divided by integer b
14     public static int integerQuotient(int a, int b) {
15         return a / b;
16     }
17
18     //Calculate the integer remainder when integer a is divided by integer b
19     public static int integerRemainder(int a, int b) {
20         return a % b;
21     }
22
23     //Display an integer as a sequence of digits, separating each pair of digits by two spaces
24     public static void displayDigits(int number) {
25         int divisor = 10000;
26
27         while (divisor >= 1) {
28             int digit = integerQuotient(number, divisor);
29             System.out.print(digit + " ");
30             number = integerRemainder(number, divisor);
31             divisor = integerQuotient(divisor, 10);
32         }
33
34         System.out.println();
35     }
36
37     public static void main(String[] args) {
38         int number = 4542;
39     }
40 }
```

Run (module3lab) X module3lab - C:\Users\behlt\Documents\NetBeansProjects\module3lab X
----- exec-maven-plugin:3.0.0:exec (default-cli) @ module3lab -----
The digits of 4542 are: 0 4 5 6 2

BUILD SUCCESS

Total time: 1.103 s
Finished at: 2023-02-19T20:16:10-05:00

2.

```
14
15 public class GuessNumber {
16     public static void main(String[] args) {
17         Scanner user = new Scanner(System.in);
18         Random random = new Random();
19         boolean playAgain = true;
20
21         while (playAgain) {
22             int numberToGuess = random.nextInt(1000) + 1;
23             boolean guessedCorrectly = false;
24
25             System.out.println("Guess a number between 1 and 1000:");
26
27             while (!guessedCorrectly) {
28                 int guess = user.nextInt();
29
30                 if (guess == numberToGuess) {
31                     System.out.println("Congratulations. You guessed the number!");
32                     guessedCorrectly = true;
33                 } else if (guess < numberToGuess) {
34                     System.out.println("Too low. Try again.");
35                 } else {
36                     System.out.println("Too high. Try again.");
37                 }
38             }
39
40             System.out.println("Do you want to play again? (y/n)");
41             String playAgainInput = user.next();
42
43             if (!playAgainInput.equalsIgnoreCase("y")) {
44                 playAgain = false;
45             }
46         }
47     }
48 }
49
```

Run (module3lab2) X
module3lab - C:\Users\behlt\Documents\NetBeansProjects\module3lab X
555
Too high. Try again.
511
Too low. Try again.
520
Congratulations. You guessed the number!
Do you want to play again? (y/n)
n

BUILD SUCCESS

Question 1: <https://github.com/ReetzL/Module3lab>

Question 2: <https://github.com/ReetzL/module3lab2.git>

