

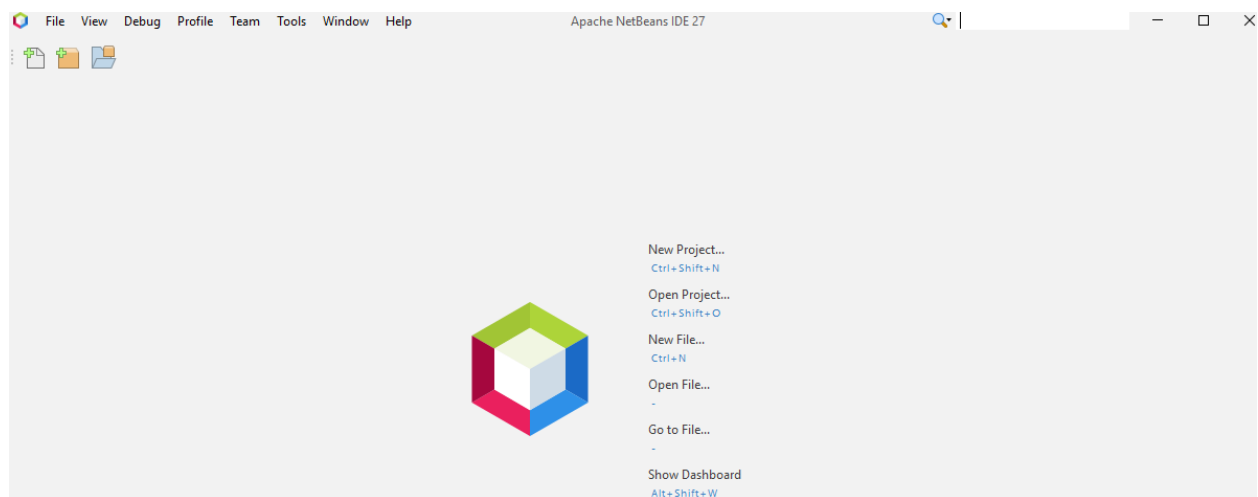
# **COMSATS University Islamabad Abbottabad Campus**

## **Department of Computer Science**

### **Lab Task 01**

Install Java JDK and NetBeans IDE on Your Laptop and create first project

### **INSTALLED**



## Lab Task 02

### Java Basics Practice

**1. Print Your Details** Write a Java program to print your name, age, and city on the screen.

The screenshot displays an IDE interface with the following components:

- Top Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help, Java...
- Left Panel (Project Explorer):** Shows a project named 'JavaApplication1' with a source package 'javaapplication1' containing the file 'JavaApplication1.java'.
- Bottom Left Panel (Main - Navigator):** Shows the class hierarchy with 'JavaApplication1' and its 'main(String[] args)' method.
- Source Editor:** Contains the following Java code:

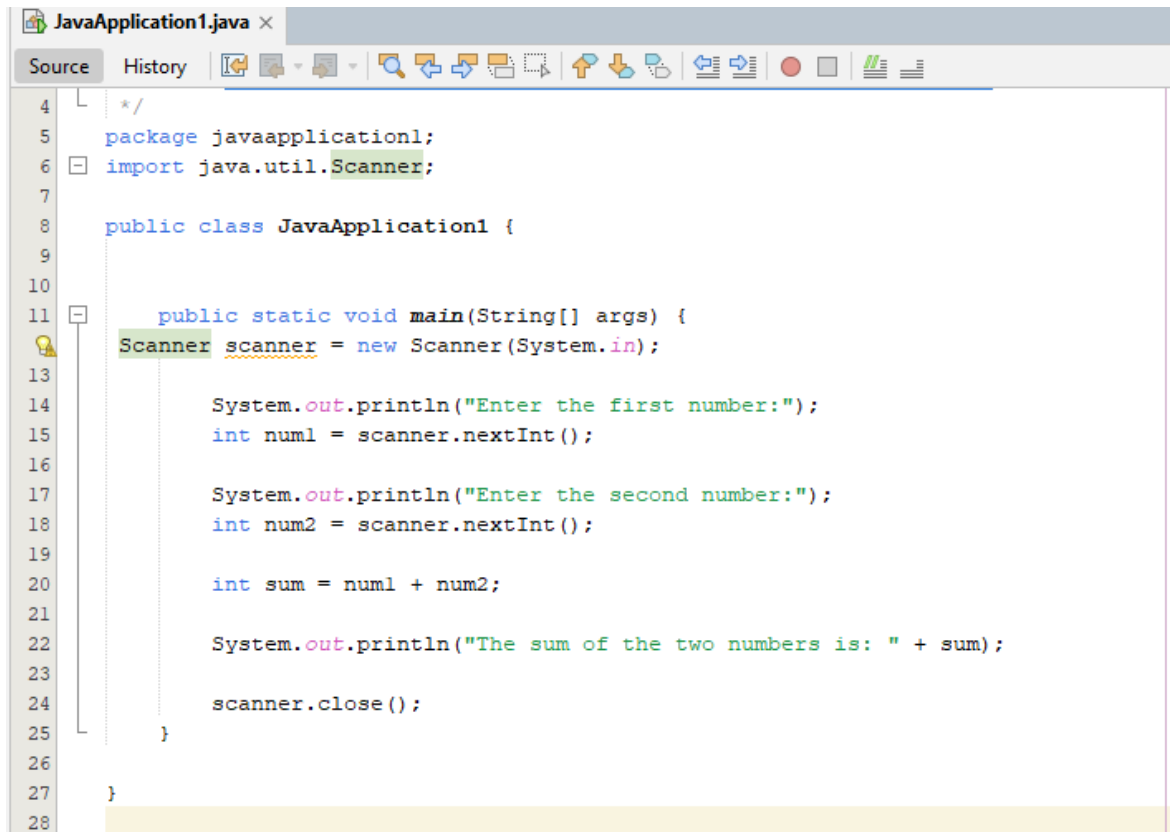
```
1  /*
2  * Click nbfs://nbhost/SystemFileSystem/Templates
3  * Click nbfs://nbhost/SystemFileSystem/Templates
4  */
5  package javaapplication1;
6
7
8  public class JavaApplication1 {
9
10
11     public static void main(String[] args) {
12         System.out.println("Name: Sakeena Manzoor");
13         System.out.println("Age: 18 Yrs");
14         System.out.println("City: Abbottabad");
15     }
16
17 }
```
- Bottom Right Panel (Output - JavaApplication1 (run)):** Shows the execution output:

```
run:
Name: Sakeena Manzoor
Age: 18 Yrs
City: Abbottabad
BUILD SUCCESSFUL (total time: 1 second)
```
- Status Bar:** Displays the time '14:25' and the text 'INS Windows (CRLF)'.

## 2. Simple Arithmetic Calculator

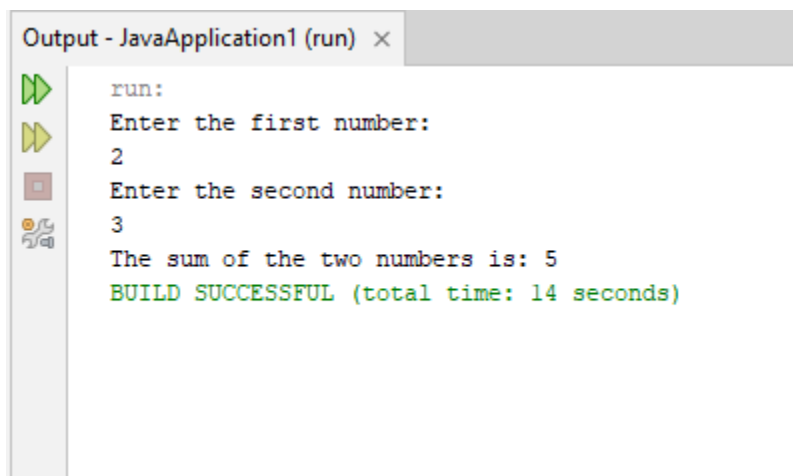
Write a program that takes two numbers as input from the user and displays their sum, difference, product, and quotient.

### SUM:



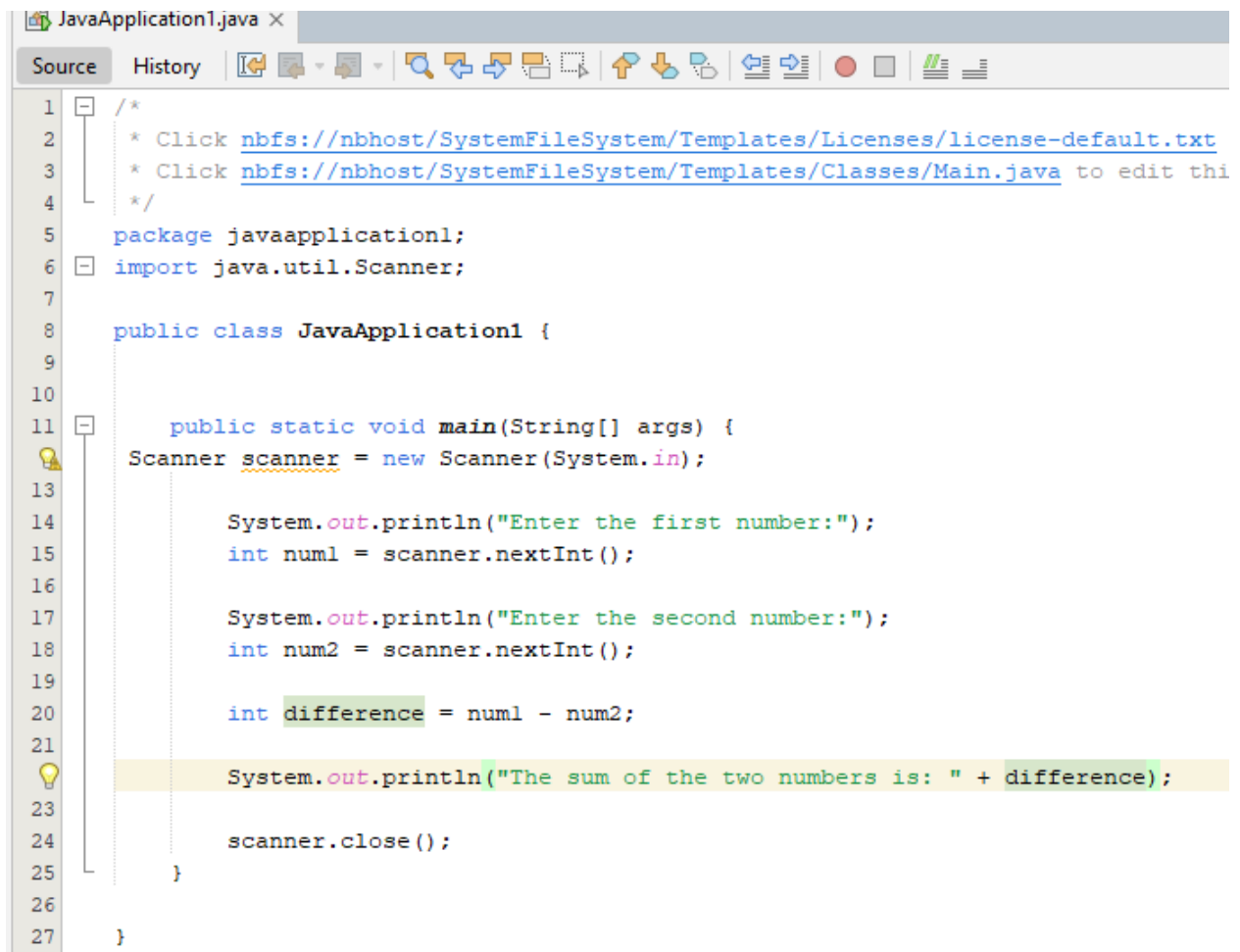
```
4  /*
5  package javaapplication1;
6  import java.util.Scanner;
7
8  public class JavaApplication1 {
9
10
11     public static void main(String[] args) {
12         Scanner scanner = new Scanner(System.in);
13
14         System.out.println("Enter the first number:");
15         int num1 = scanner.nextInt();
16
17         System.out.println("Enter the second number:");
18         int num2 = scanner.nextInt();
19
20         int sum = num1 + num2;
21
22         System.out.println("The sum of the two numbers is: " + sum);
23
24         scanner.close();
25     }
26
27 }
28
```

### OUTPUT:



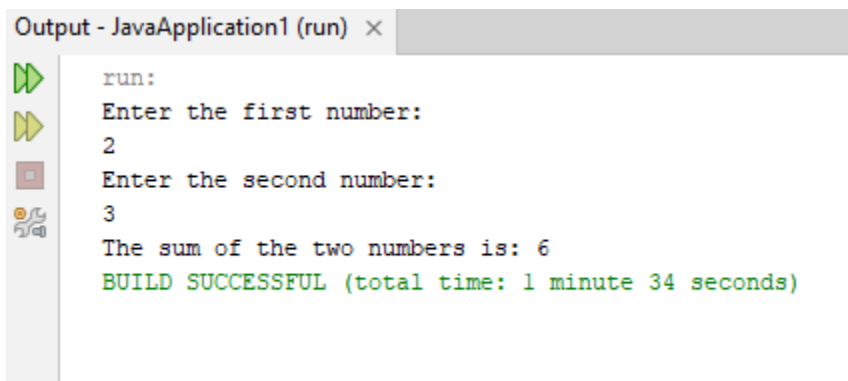
```
Output - JavaApplication1 (run) x
run:
Enter the first number:
2
Enter the second number:
3
The sum of the two numbers is: 5
BUILD SUCCESSFUL (total time: 14 seconds)
```

## DIFFERENCE:



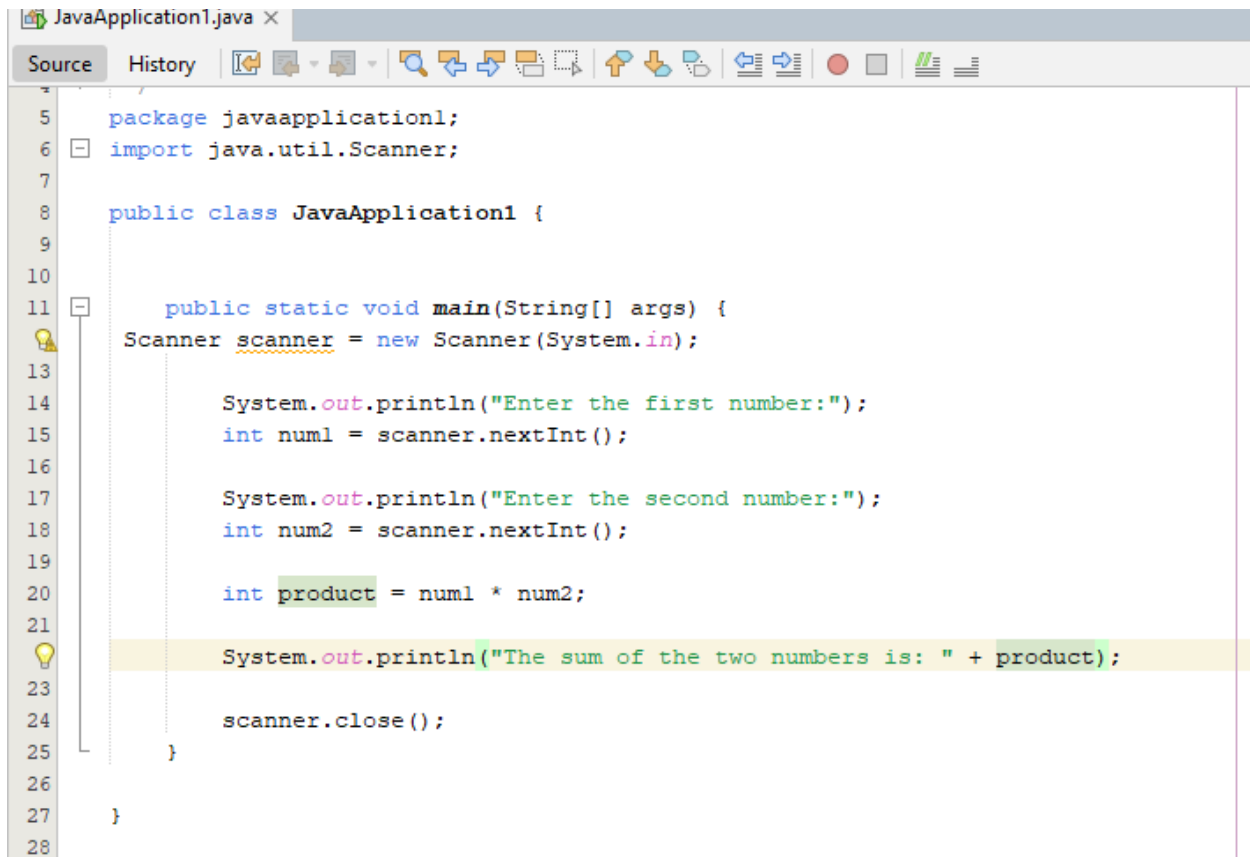
```
1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit thi
4   */
5   package javaapplication1;
6   import java.util.Scanner;
7
8   public class JavaApplication1 {
9
10
11      public static void main(String[] args) {
12          Scanner scanner = new Scanner(System.in);
13
14          System.out.println("Enter the first number:");
15          int num1 = scanner.nextInt();
16
17          System.out.println("Enter the second number:");
18          int num2 = scanner.nextInt();
19
20          int difference = num1 - num2;
21
22          System.out.println("The sum of the two numbers is: " + difference);
23
24          scanner.close();
25      }
26
27  }
```

## OUTPUT:



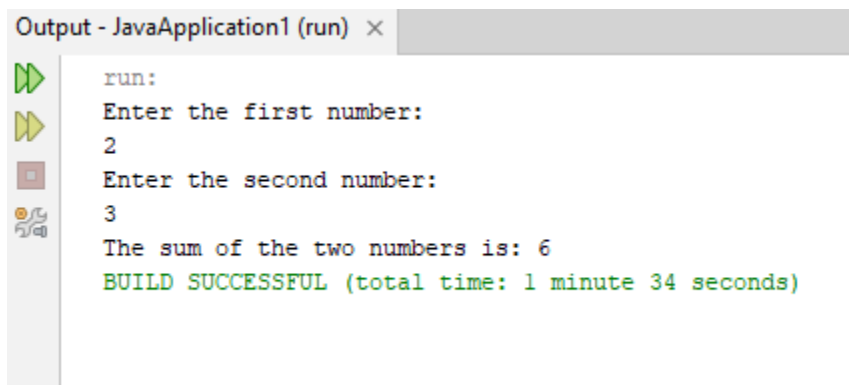
```
Output - JavaApplication1 (run) ×
run:
Enter the first number:
2
Enter the second number:
3
The sum of the two numbers is: 6
BUILD SUCCESSFUL (total time: 1 minute 34 seconds)
```

## PRODUCT



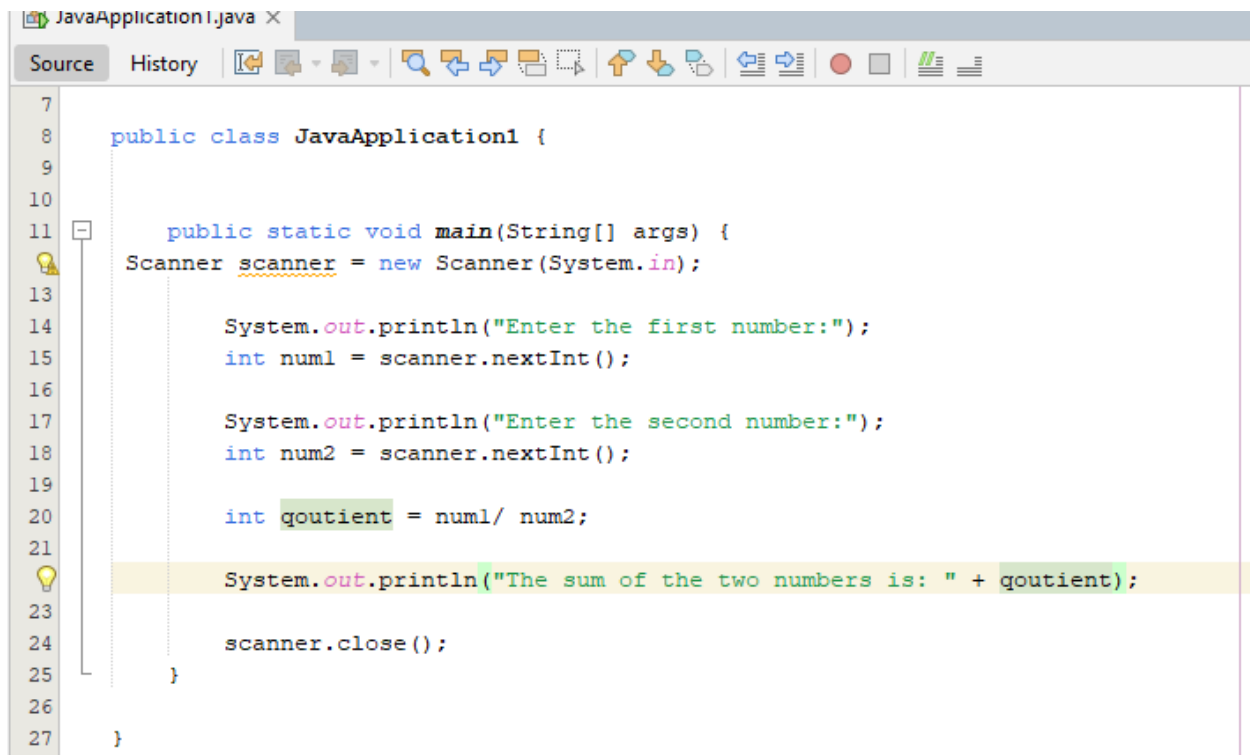
```
5 package javaapplication1;
6 import java.util.Scanner;
7
8 public class JavaApplication1 {
9
10
11     public static void main(String[] args) {
12         Scanner scanner = new Scanner(System.in);
13
14         System.out.println("Enter the first number:");
15         int num1 = scanner.nextInt();
16
17         System.out.println("Enter the second number:");
18         int num2 = scanner.nextInt();
19
20         int product = num1 * num2;
21
22         System.out.println("The sum of the two numbers is: " + product);
23
24         scanner.close();
25     }
26
27 }
28
```

## OUTPUT:



```
run:
Enter the first number:
2
Enter the second number:
3
The sum of the two numbers is: 6
BUILD SUCCESSFUL (total time: 1 minute 34 seconds)
```

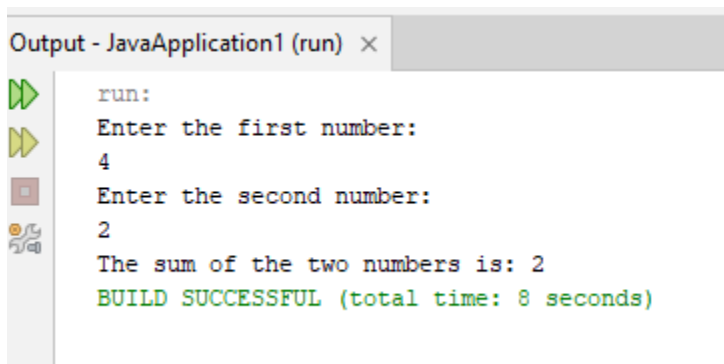
## QOUTIENT:



The screenshot shows an IDE window titled 'JavaApplication1.java'. The code is as follows:

```
7
8 public class JavaApplication1 {
9
10
11     public static void main(String[] args) {
12         Scanner scanner = new Scanner(System.in);
13
14         System.out.println("Enter the first number:");
15         int num1 = scanner.nextInt();
16
17         System.out.println("Enter the second number:");
18         int num2 = scanner.nextInt();
19
20         int quotient = num1 / num2;
21
22         System.out.println("The sum of the two numbers is: " + quotient);
23
24         scanner.close();
25     }
26
27 }
```

## OUTPUT:

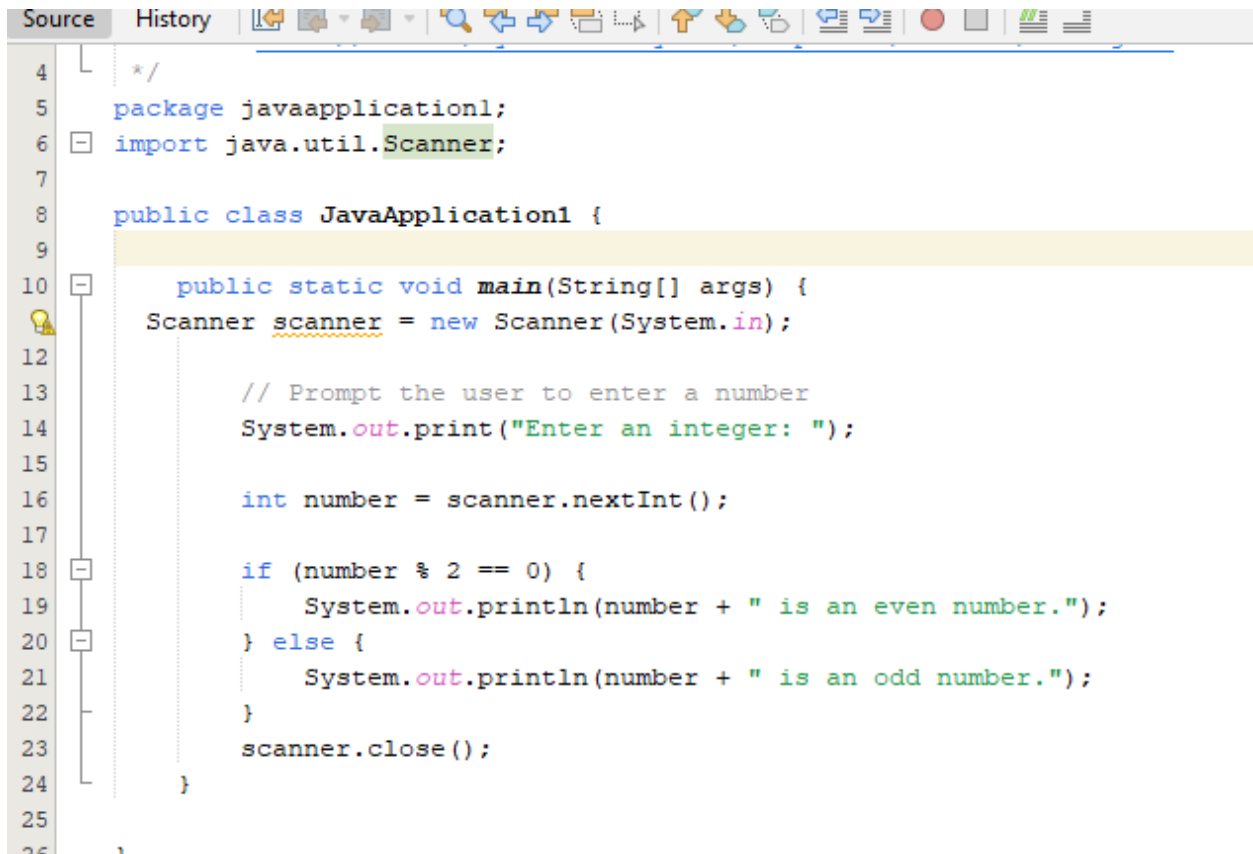


The screenshot shows the 'Output - JavaApplication1 (run)' window. The output is as follows:

```
run:
Enter the first number:
4
Enter the second number:
2
The sum of the two numbers is: 2
BUILD SUCCESSFUL (total time: 8 seconds)
```

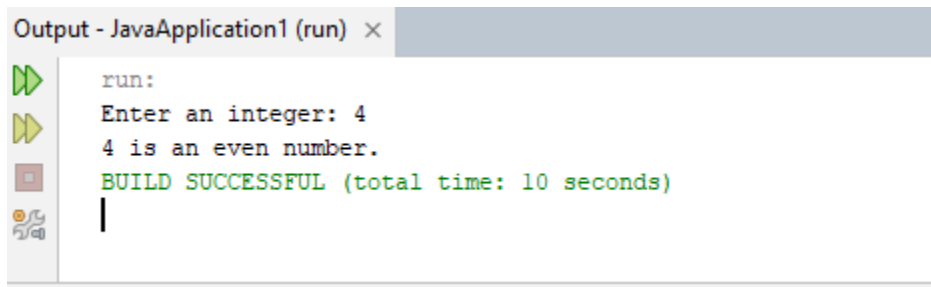
3. Even or Odd Number Write a program that asks the user to enter a number and prints whether it is even or odd.

## PROGRAM:



```
4  */
5  package javaapplication1;
6  import java.util.Scanner;
7
8  public class JavaApplication1 {
9
10     public static void main(String[] args) {
11         Scanner scanner = new Scanner(System.in);
12
13         // Prompt the user to enter a number
14         System.out.print("Enter an integer: ");
15
16         int number = scanner.nextInt();
17
18         if (number % 2 == 0) {
19             System.out.println(number + " is an even number.");
20         } else {
21             System.out.println(number + " is an odd number.");
22         }
23         scanner.close();
24     }
25
26 }
```

## OUTPUT:



```
Output - JavaApplication1 (run) x
run:
Enter an integer: 4
4 is an even number.
BUILD SUCCESSFUL (total time: 10 seconds)
```

4. Temperature Converter Write a Java program to convert a temperature from Celsius to Fahrenheit. The formula is: Fahrenheit = (Celsius × 9/5) + 32 .

## PROGRAM:

```
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this t
4  */
5  package javaapplication1;
6  import java.util.Scanner;
7
8  public class JavaApplication1 {
9
10     public static void main(String[] args) {
11         Scanner input = new Scanner(System.in);
12
13         System.out.print("Enter temperature in Celsius: ");
14         double celsius = input.nextDouble();
15
16
17         double fahrenheit = (celsius * 9 / 5) + 32;
18
19         System.out.println("Temperature in Fahrenheit: " + fahrenheit + "°F");
20
21         input.close();
22     }
23
24 }
25
```

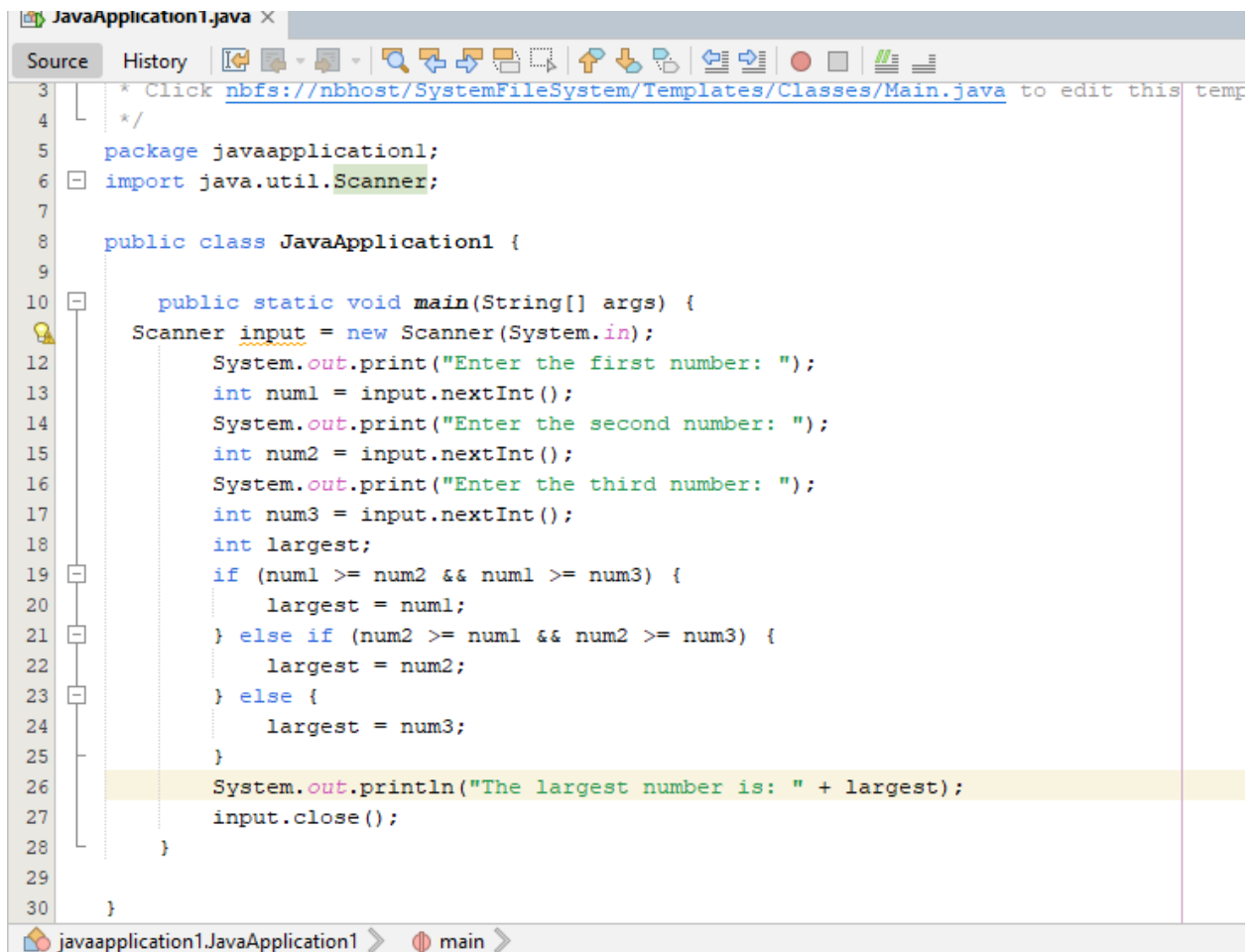
## OUTPUT:

```
run:
Enter temperature in Celsius: 33
Temperature in Fahrenheit: 91.4°F
BUILD SUCCESSFUL (total time: 5 seconds)
|
```

5. Find the Largest Number Write a program that asks the user to enter three numbers and prints the largest number among them.

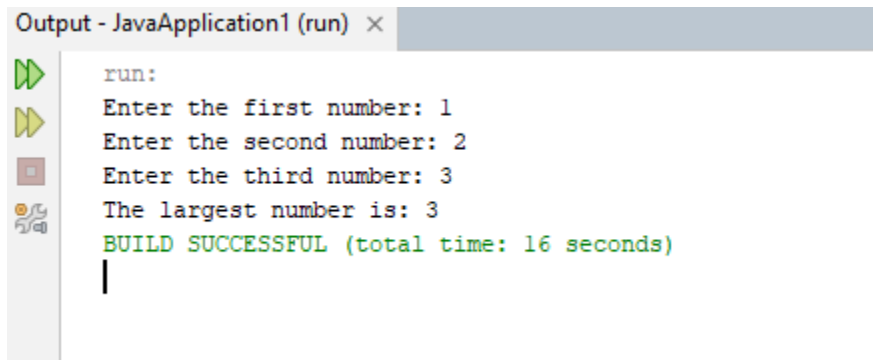
## PROGRAM:





```
3  * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Main.java to edit this template
4  */
5  package javaapplication1;
6  import java.util.Scanner;
7
8  public class JavaApplication1 {
9
10     public static void main(String[] args) {
11         Scanner input = new Scanner(System.in);
12         System.out.print("Enter the first number: ");
13         int num1 = input.nextInt();
14         System.out.print("Enter the second number: ");
15         int num2 = input.nextInt();
16         System.out.print("Enter the third number: ");
17         int num3 = input.nextInt();
18         int largest;
19         if (num1 >= num2 && num1 >= num3) {
20             largest = num1;
21         } else if (num2 >= num1 && num2 >= num3) {
22             largest = num2;
23         } else {
24             largest = num3;
25         }
26         System.out.println("The largest number is: " + largest);
27         input.close();
28     }
29 }
30
```

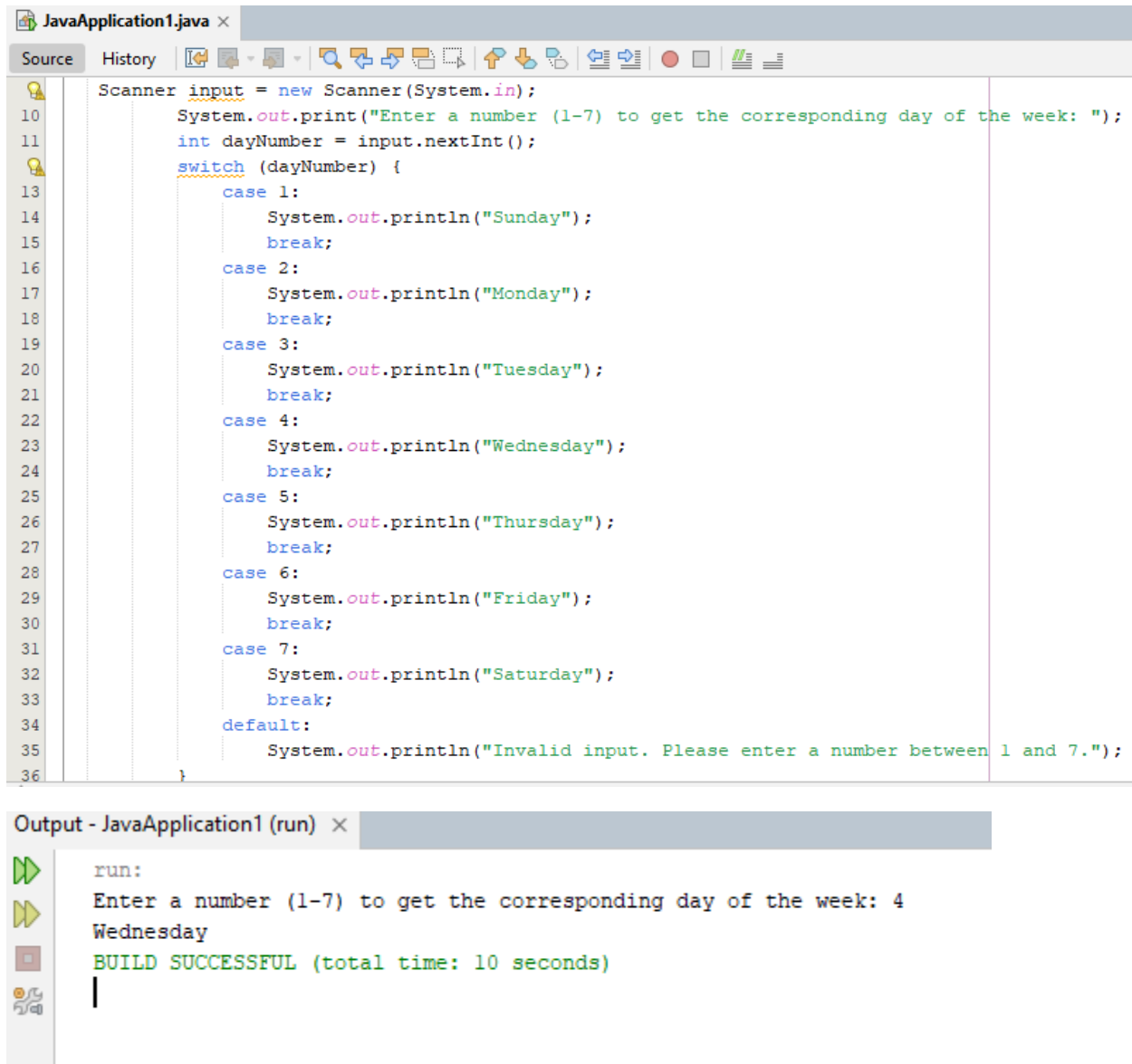
## OUTPUT:



```
run:
Enter the first number: 1
Enter the second number: 2
Enter the third number: 3
The largest number is: 3
BUILD SUCCESSFUL (total time: 16 seconds)
```

6. Day of the Week Using Switch Write a program that asks the user to enter a number (1–7) and prints the corresponding day of the week using a switch statement.

## PROGRAM:



The screenshot shows an IDE with two windows. The top window, titled 'JavaApplication1.java', contains the following Java code:

```
Scanner input = new Scanner(System.in);
System.out.print("Enter a number (1-7) to get the corresponding day of the week: ");
int dayNumber = input.nextInt();
switch (dayNumber) {
    case 1:
        System.out.println("Sunday");
        break;
    case 2:
        System.out.println("Monday");
        break;
    case 3:
        System.out.println("Tuesday");
        break;
    case 4:
        System.out.println("Wednesday");
        break;
    case 5:
        System.out.println("Thursday");
        break;
    case 6:
        System.out.println("Friday");
        break;
    case 7:
        System.out.println("Saturday");
        break;
    default:
        System.out.println("Invalid input. Please enter a number between 1 and 7.");
}
```

The bottom window, titled 'Output - JavaApplication1 (run)', shows the program's execution:

```
run:
Enter a number (1-7) to get the corresponding day of the week: 4
Wednesday
BUILD SUCCESSFUL (total time: 10 seconds)
```