**NAME:**

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**SUBMITTED TO:**

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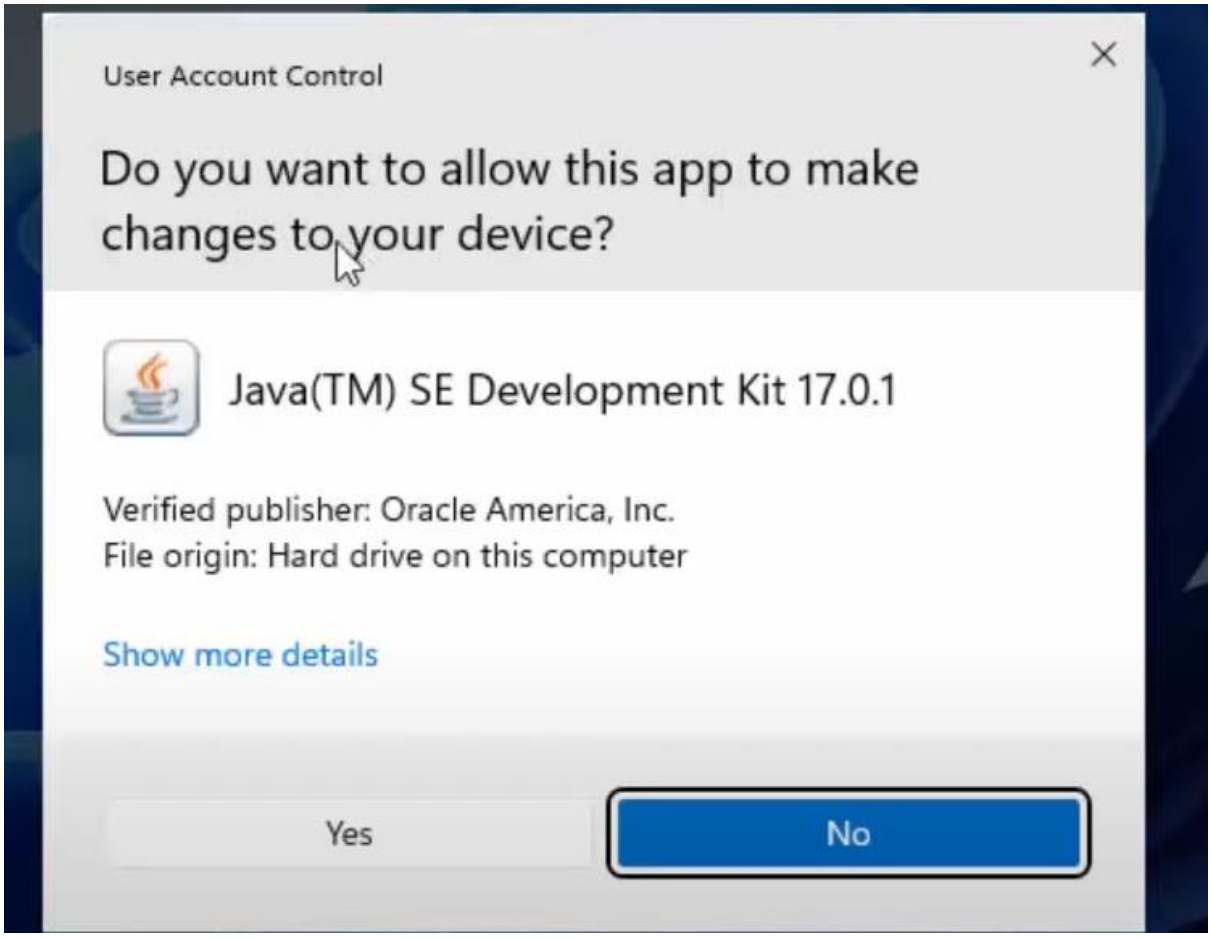
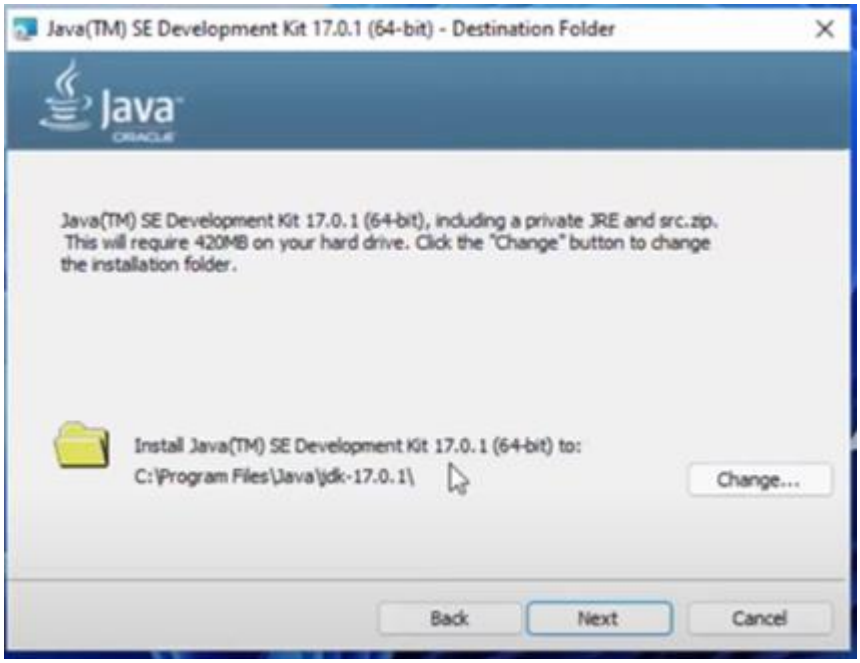
**ASSIGNEMENT:**

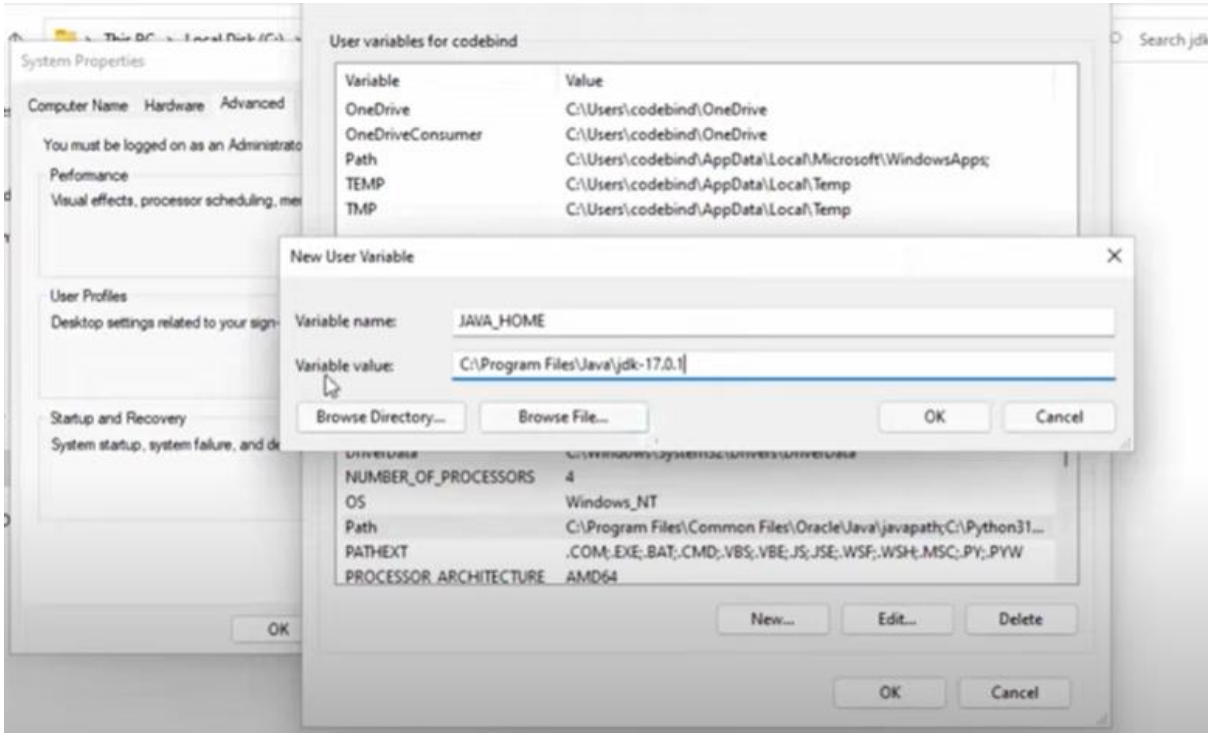
**1**

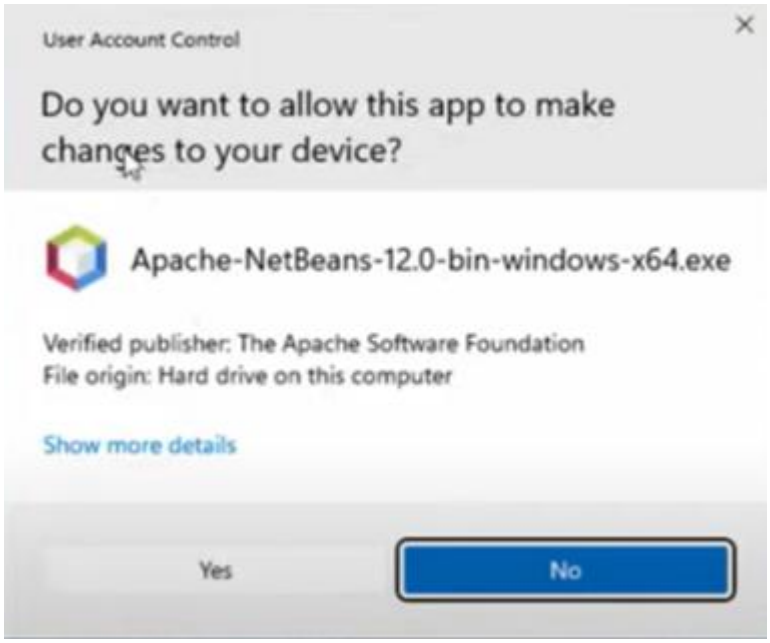
**Lab task 1:**

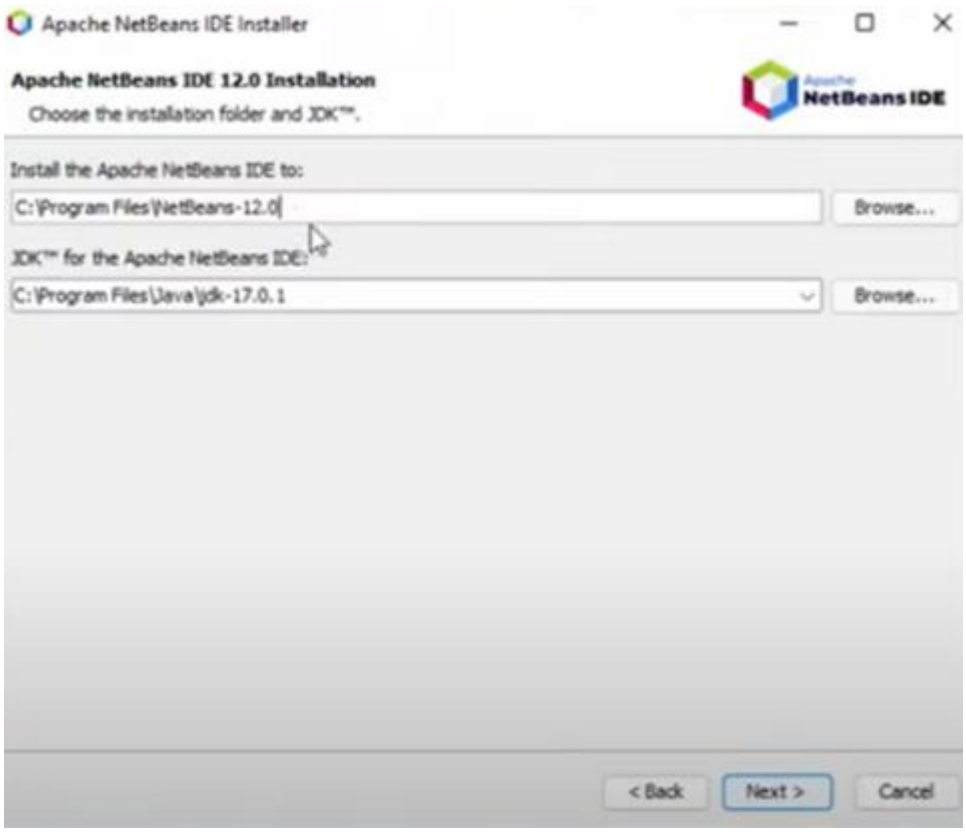
Install jdk and netbeans on laptop and create first project.

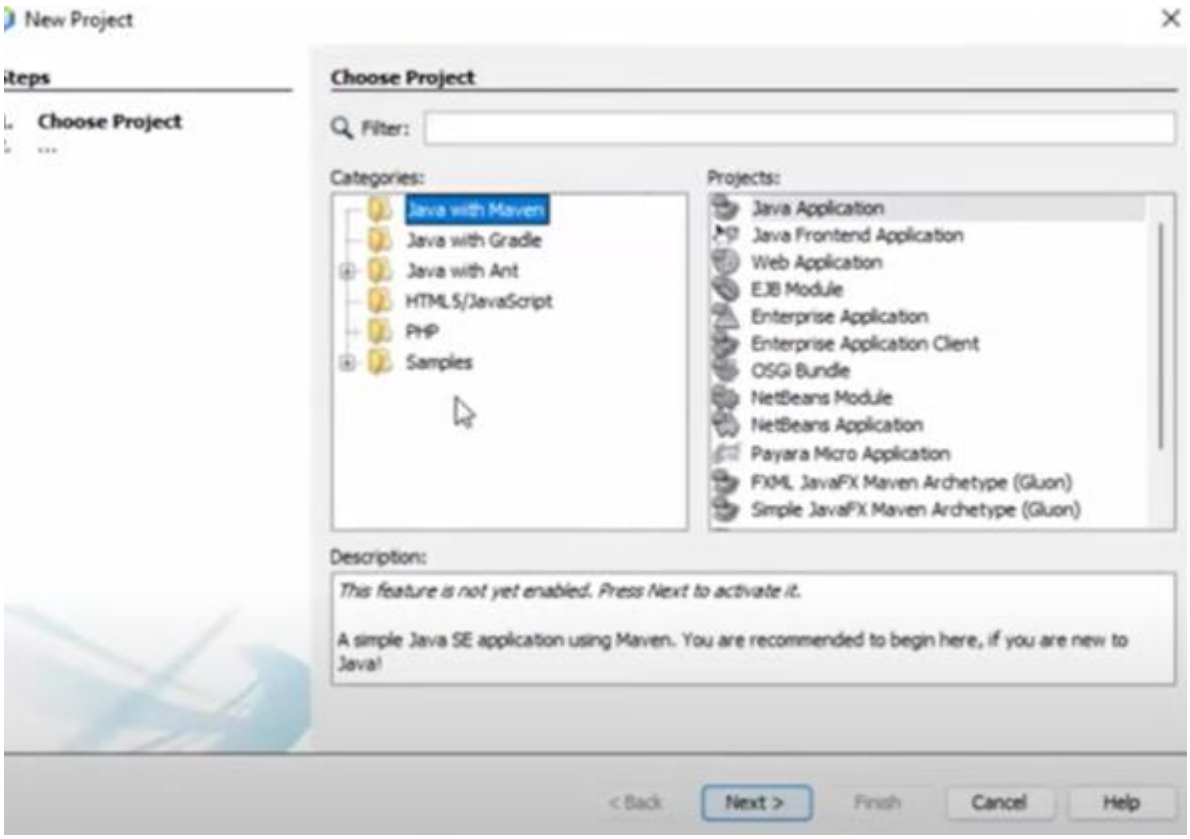


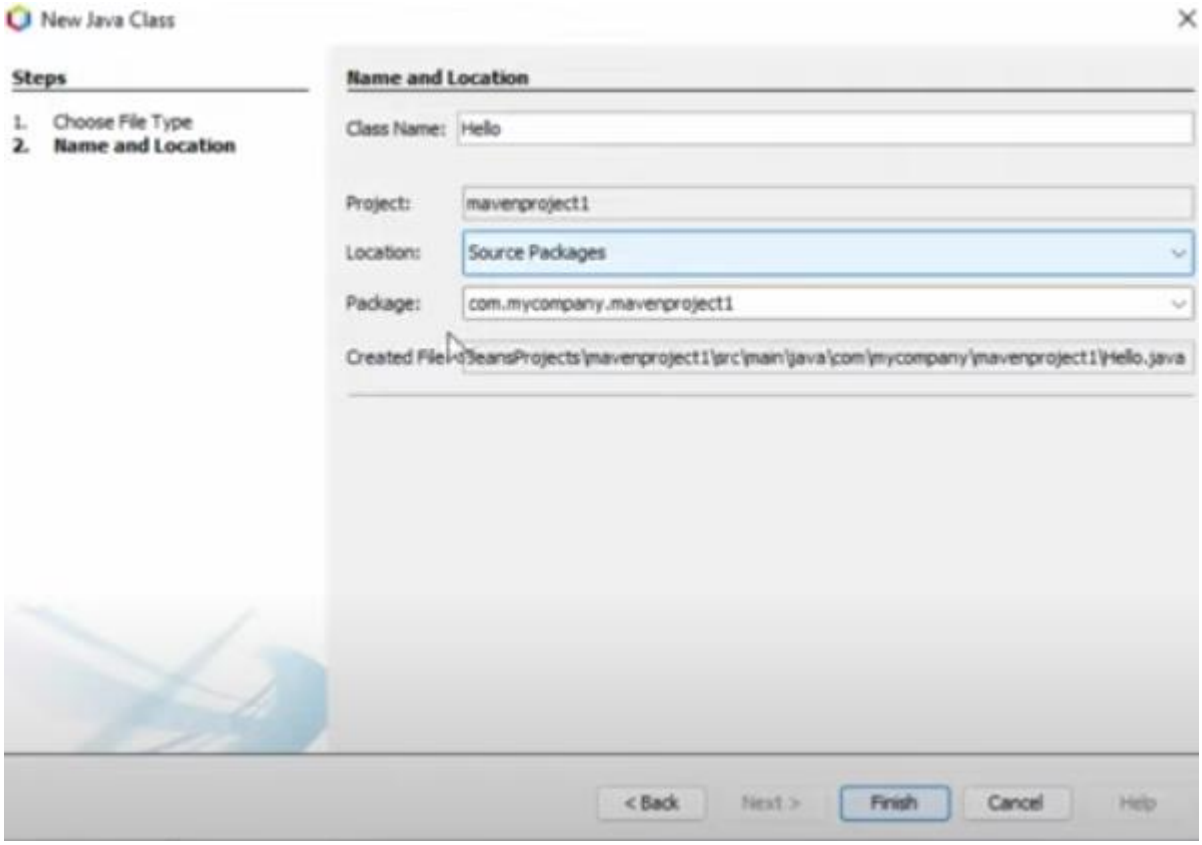

Java(TM) SE Development Kit 17.0.1 (64-bit) - Destination Folder
Java
Java(TM) SE Development Kit 17.0.1 (64-bit), including a private JRE and src.zip.
This will require 420MB on your hard drive. Click the "Change" button to change
the installation folder.
Install Java(TM) SE Development Kit 17.0.1 (64-bit) to:
C:\Program Files\Java\jdk-17.0.1\
Change...
Back
Next
Cancel


System Properties
Computer Name
Hardware
Advanced
Performance
User Profiles
Startup and Recovery
OK
User variables for codebind
Variable
Value
OneDrive
C:\Users\codebind\OneDrive
OneDriveConsumer
C:\Users\codebind\OneDrive
Path
C:\Users\codebind\AppData\Local\Microsoft\WindowsApps;
TEMP
C:\Users\codebind\AppData\Local\Temp
TMP
C:\Users\codebind\AppData\Local\Temp
New User Variable
Variable name:
JAVA_HOME
Variable value:
C:\Program Files\Java\jdk-17.0.1
Browse Directory...
Browse File...
OK
Cancel
NUMBER_OF_PROCESSORS
4
OS
Windows_NT
Path
C:\Program Files\Common Files\Oracle\Java\javapath;C:\Python31...
PATHEXT
.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC;.PY;.PYW
PROCESSOR_ARCHITECTURE
AMD64
New...
Edit...
Delete
OK
Cancel


User Account Control
Do you want to allow this app to make changes to your device?
Apache-NetBeans-12.0-bin-windows-x64.exe
Verified publisher: The Apache Software Foundation
File origin: Hard drive on this computer
Show more details
Yes
No


Apache NetBeans IDE Installer
Apache NetBeans IDE 12.0 Installation
Choose the installation folder and JDK™.
Apache NetBeans IDE
Install the Apache NetBeans IDE to:
C:\Program Files\NetBeans-12.0
Browse...
JDK™ for the Apache NetBeans IDE:
C:\Program Files\Java\jdk-17.0.1
Browse...
< Back
Next >
Cancel


New Project
Steps
1. Choose Project
...
Choose Project
Filter:
Categories:
Java with Maven
Java with Gradle
Java with Ant
HTML5/JavaScript
PHP
Samples
Projects:
Java Application
Java Frontend Application
Web Application
EJB Module
Enterprise Application
Enterprise Application Client
OSGi Bundle
NetBeans Module
NetBeans Application
Payara Micro Application
FXML JavaFX Maven Archetype (Gluon)
Simple JavaFX Maven Archetype (Gluon)
Description:
This feature is not yet enabled. Press Next to activate it.
A simple Java SE application using Maven. You are recommended to begin here, if you are new to Java!
< Back
Next >
Finish
Cancel
Help


New Java Class
Steps
1. Choose File Type
2. Name and Location
Name and Location
Class Name: Hello
Project: mavenproject1
Location: Source Packages
Package: com.mycompany.mavenproject1
Created File: C:\NetBeansProjects\mavenproject1\src\main\java\com\mycompany\mavenproject1\Hello.java
< Back
Next >
Finish
Cancel
Help

```java
public class Hello {
    public static void main(String[] args) {
        System.out.println("Hello World");
    }
}
```

**Lab task 2:**

Java basic practice

**Question 1:**

Print your personal details.

**Answer:**

```java
import java.util.Scanner;

public class Personalinfo {


   public static void main(String[] args) {



      String name = "ahmed zaman";

      int age = 20;

      String city = "abbottabad";



      System.out.println("Name: " + name);

      System.out.println("Age: " + age);

      System.out.println("City: " + city);

   }

}
```

```
Name: ahmed zaman
Age: 20
City: abbottabad
```

2. **Simple Arithmetic Calculator**

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

```java
import java.util.Scanner;

public class SimpleCalculator {
```

```
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);



        System.out.print("Enter the first number: ");
        double num1 = scanner.nextDouble();

        System.out.print("Enter the second number: ");
        double num2 = scanner.nextDouble();



        double sum = num1 + num2;
        double difference = num1 - num2;
        double product = num1 * num2;



            double quotient = num1 / num2;



        System.out.println("Sum: " + sum);
        System.out.println("Difference: " + difference);
        System.out.println("Product: " + product);
        System.out.println("Quotient: "+ quotient);



        scanner.close();
    }
}
```

```
Enter the first number: 5
Enter the second number: 4
Sum: 9.0
Difference: 1.0
Product: 20.0
Quotient: 1.25
```

**3. Even or Odd Number**

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

```
import java.util.Scanner;
public class EvenOrOdd {

   public static void main(String[] args) {

      Scanner scanner = new Scanner(System.in);



      System.out.print("Enter an integer: ");
      int number = scanner.nextInt();



      if (number % 2 == 0) {
         System.out.println(number + " is even.");
      } else {
         System.out.println(number + " is odd.");
      }


      scanner.close();


   }
}
```

```
Enter an integer: 4
4 is even.
--------------------
```

**4. Temperature Converter**

Write a Java program to convert a temperature from Celsius to Fahrenheit.

```
import java.util.Scanner;
public class TemperatureConverter {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);



        System.out.print("Enter temperature in Celsius: ");
        double celsius = scanner.nextDouble();



        double fahrenheit = (celsius * 9 / 5) + 32;



        System.out.println("Temperature in Fahrenheit: " + fahrenheit);

        scanner.close();
    }
}
```

```
Enter temperature in Celsius: 25
Temperature in Fahrenheit: 77.0
```

**5. Find the Largest Number**

Write a program that asks the user to enter three numbers and prints the largest number among them

```
import java.util.Scanner;

public class LargestNumber {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
```

```
        System.out.print("Enter the first number: ");
        double num1 = scanner.nextDouble();

        System.out.print("Enter the second number: ");
        double num2 = scanner.nextDouble();

        System.out.print("Enter the third number: ");
        double num3 = scanner.nextDouble();

        double largest;



        if (num1 >= num2 && num1 >= num3) {
            largest = num1;
        } else if (num2 >= num1 && num2 >= num3) {
            largest = num2;
        } else {
            largest = num3;
        }



        System.out.println("The largest number is: " + largest);

        scanner.close();

    }
}
```

```
Enter the first number: 6
Enter the second number: 5
Enter the third number: 7
The largest number is: 7.0
```

**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.

```
import java.util.Scanner;

public class DayofWeek {


    public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);



        System.out.print("Enter a number (1–7): ");
        int dayNumber = scanner.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 from 1 to 7.");
        }

        scanner.close();
    }
}
```

```
Enter a number (1�7): 3
Tuesday
```

**Lab task 3 Java basics project**

**Q1: Student Grade Calculator**

**Answer:**

```
import java.util.Scanner;
public class GradeCalculatar {

    public static void main(String[] args) {
        // Create Scanner object to take input from the user
        Scanner scanner = new Scanner(System.in);

        // Ask user to enter marks
        System.out.print("Enter Quiz Marks (out of 15): ");
        int quizMarks = scanner.nextInt();

        System.out.print("Enter Assignment Marks (out of 10): ");
        int assignmentMarks = scanner.nextInt();

        System.out.print("Enter Mid-Term Marks (out of 25): ");
```

```
        int midTermMarks = scanner.nextInt();

        System.out.print("Enter Final Exam Marks (out of 50): ");
        int finalMarks = scanner.nextInt();

        // Calculate total marks
        int totalMarks = quizMarks + assignmentMarks + midTermMarks + finalMarks;

        // Calculate average using type casting to get decimal result
        double average = (double) totalMarks / 100 * 100; // Since total is out of 100

        // Display total and average
        System.out.println("Total Marks = " + totalMarks);
        System.out.println("Average = " + average);

        // Determine grade using if-else statements
        if (average >= 85) {
            System.out.println("Grade = A");
        } else if (average >= 70) {
            System.out.println("Grade = B");
        } else if (average >= 50) {
            System.out.println("Grade = C");
        } else {
            System.out.println("Grade = Fail");
        }

        // Close the scanner
        scanner.close();
    }
}
```

```
Enter Quiz Marks (out of 15): 12
Enter Assignment Marks (out of 10): 9
Enter Mid-Term Marks (out of 25): 20
Enter Final Exam Marks (out of 50): 40
Total Marks = 81
Average = 81.0
Grade = B
```

**Q2: Pizza Billing System**

**Answer:**

```
import java.util.Scanner;
public class Pizzabillingsystem {

    public static void main(String[] args) {




        Scanner input = new Scanner(System.in);



        int bill = 0;
        String size;
        String pepperoni;
        String cheese;



        System.out.print("Enter pizza size (small/medium/large): ");
        size = input.nextLine();



        switch (size) {
            case "small":
                bill = 100;
                break;
```

```
    case "medium":
        bill = 200;
        break;
    case "large":
        bill = 300;
        break;
    default:

        System.out.println("Invalid size entered. Please enter small, medium, or large.");
        input.close();
        return;
}


System.out.print("Do you want pepperoni? (yes/no): ");
pepperoni = input.nextLine();


if (pepperoni.equals("yes")) {
    if (size.equals("small")) {
        bill = bill + 30; // Add 30 for small pizza
    } else {
        bill = bill + 50; // Add 50 for medium/large pizza
    }
}


System.out.print("Do you want extra cheese? (yes/no): ");
cheese = input.nextLine();


if (cheese.equals("yes")) {
```

```
            bill = bill + 20;
        }


        System.out.println("Your final bill is: " + bill + " rupees");


        input.close();
    }
}
```

```
Enter pizza size (small/medium/large): small
Do you want pepperoni? (yes/no): yes
Do you want extra cheese? (yes/no): no
Your final bill is: 130 rupees
```