**23CSE111**

**OBJECT ORIENTED PROGRAMMING**

**LAB REPORT**



**Department of Computer Science Engineering**

**Amrita School of Computing**

**Amrita Vishwa Vidyapeetham, Amaravati Campus**

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**Verified By Roll No: 24337**

**WEEK-1**

**1) Explain the process of Installing JDK (Java Development Kit)**

**Installing of JDK (Java Development Kit):**

1. **Download JDK:**
   * Go to the Oracle JDK download page in your web browser and click on JDK-21 version which is Long term support (LTS) version.
   * Click on the download link for your operating system (Windows, macOS, or Linux).
2. **Install JDK:**
   * Once downloaded, run the installer.
   * Follow the instructions and keep clicking "Next" until it's done.
3. **Set Environment Variables (Windows):**
   * Open file explorer, then right click on This PC next select on properties then it will take you to the settings app then click on advanced system settings and then  
     click on **Environment Variables**.
   * Click **New** under **System Variables**:
     + **Set Variable name as:** java\_home
     + **Variable value:** The folder address where JDK is installed (like C:\Program Files\Java\jdk-21\bin)
   * Find Path under **System Variables**, click **Edit**, and add the path of the jdk-21(C:\Program Files\Java\jdk-21\bin)
   * 

**Checking of JDK Version:**

1. **Open Command Prompt:**
   * Press win+R, type cmd, and press Enter.
2. **Check Version:**
   * Type java --version and press Enter.
   * Type javac --version and press Enter.



**TASK-1 Print helloworld:-**

public class helloworld {

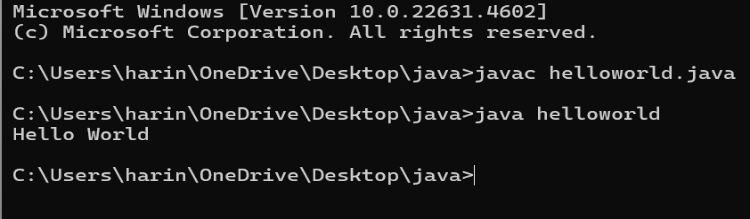
public static void main(String[] args) {

System.out.println("Hello World");

}

}

**Output:**



**STUDENT DETAILS:**

public class studentinformation {

public static void main(String args[]) {

System.out.println("NAME:T.Harini");

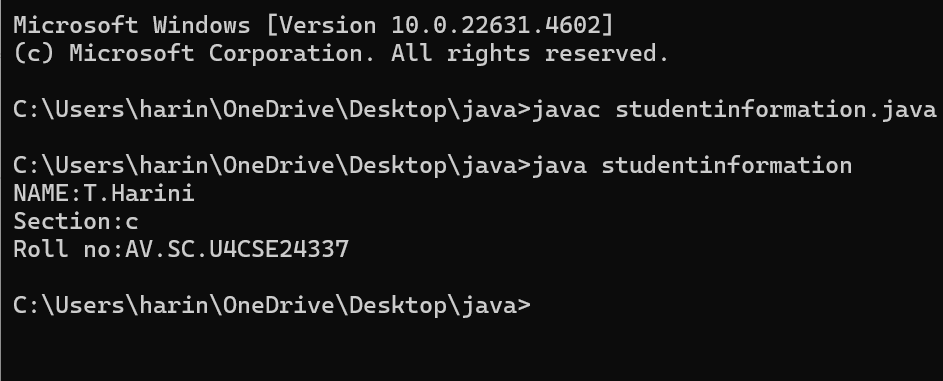
System.out.println("Section:c");

System.out.println("Roll no:AV.SC.U4CSE24337");

}

}

**OUTPUT:**



**WEEK 2:**

**Program 1:**

AIM: Write a java program to find the simple interest where all the inputs are taken from the user.

Code:

import java.util.Scanner;

public class Simpleinterst{

public static void main(String[] args) {

int p,t,r,Simpleinterst;

Scanner num = new Scanner(System.in);

System.out.println("enter the value of p");

p = num.nextInt();

System.out.println("Enter the value of t");

t = num.nextInt();

System.out.println("enter the value of r");

r = num.nextInt();

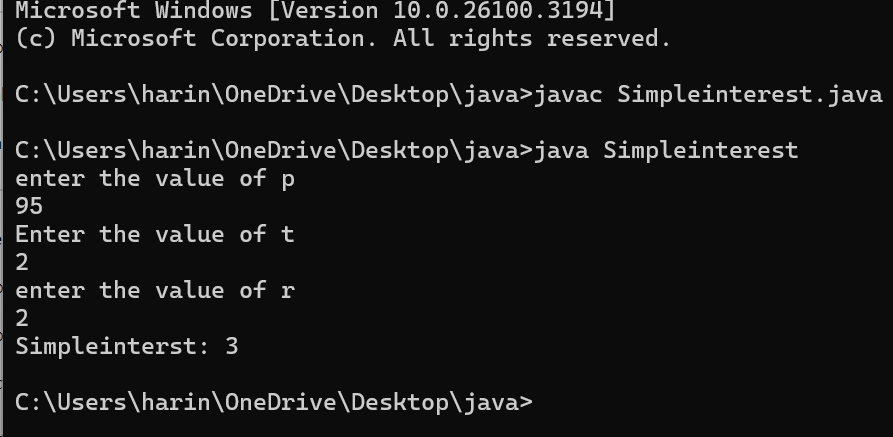
Simpleinterst = (p \* t \*r)/100;

System.out.println("Simpleinterst: " + Simpleinterst);

    }

}

Output:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. Giving space between next and Double. 2. Not giving parenthesis after closing the input. | 1. Should not give space between next and Double. 2. We must put parenthesis after closing the input. |

PROGRAM 2:

AIM: Write a java program to find the factorial of a number where all the inputs are taken from a user.

CODE:

import java.util.Scanner;

public class Factorial {

public static void main(String[] args) {

int n, factorial = 1;

Scanner num = new Scanner(System.in);

System.out.println("Enter a number:");

n = num.nextInt();

for (int i = 1; i <= n; i++) {

factorial \*= i;

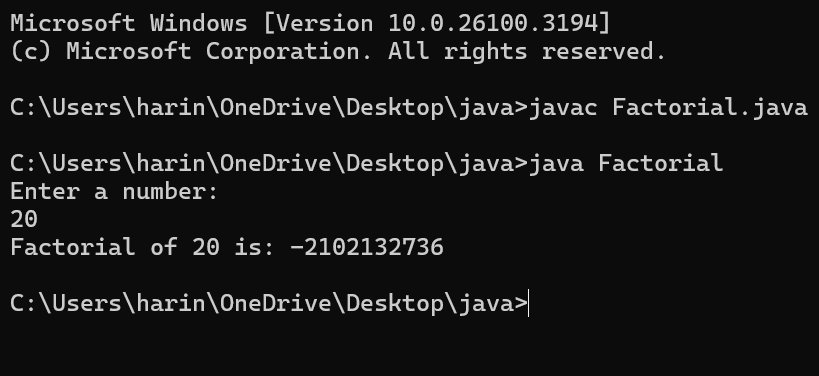
}

System.out.println("Factorial of " + n + " is: " + factorial);

}

}

OUTPUT:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. While using for iteration, not giving the conditions correctly. 2. Declaring the data type as double instead of int. | 1. We should give iterative statements correctly. 2. We should give the data type as int for integers. |

PROGRAM 3:

AIM: Write a program to convert the temperature from Celsius to Fahrenheit and Celsius to Fahrenheit.

CODE:

import java.util.Scanner;

public class farenheit {

public static void main(String[] args) {

int C,F;

Scanner num = new Scanner(System.in);

System.out.println("enter the value of F");

F = num.nextInt();

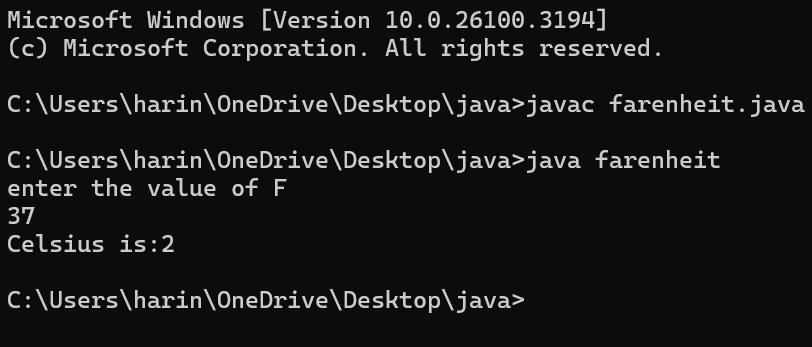
C = (F - 32)\* 5/9;

System.out.println("Celsius is:"+C);

}

}

OUTPUT:



CODE:

import java.util.Scanner;

public class Celsius {

public static void main(String[] args) {

int C,F;

Scanner num = new Scanner(System.in);

System.out.println("enter the value of C");

C = num.nextInt();

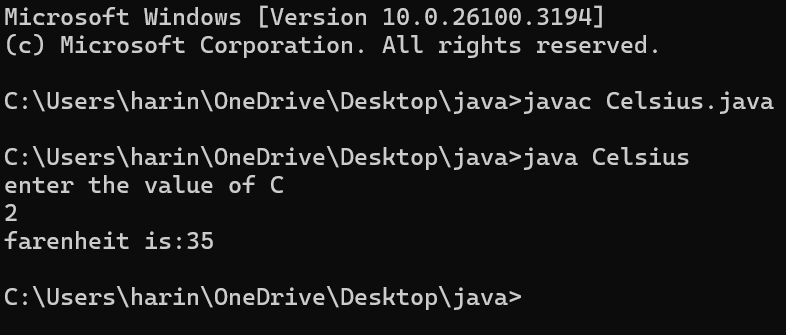
F=(C\*9/5)+32;

System.out.println("farenheit is:"+F);

}

}

OUTPUT:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. While printing the variable not giving + sign. 2. Not closing the scanner. | 1. We should give correct indentation. 2. Closing the scanner is must. |

PROGRAM 4:

AIM: Write a java program to find the Fibonacci series of a given number where all the inputs are taken form the user.

CODE:

import java.util.Scanner;

public class Fibonacci {

public static void main(String[]args){

Scanner scanner = new Scanner(System.in);

System.out.println("Enter the no of terms:");

int n=scanner.nextInt();

int a=0,b=1;

System.out.println("Fibonacci sequence");

for (int i=1;i<=n;i++){

System.out.println(a+" ");

int nextTerm =a+b;

a=b;

b=nextTerm;

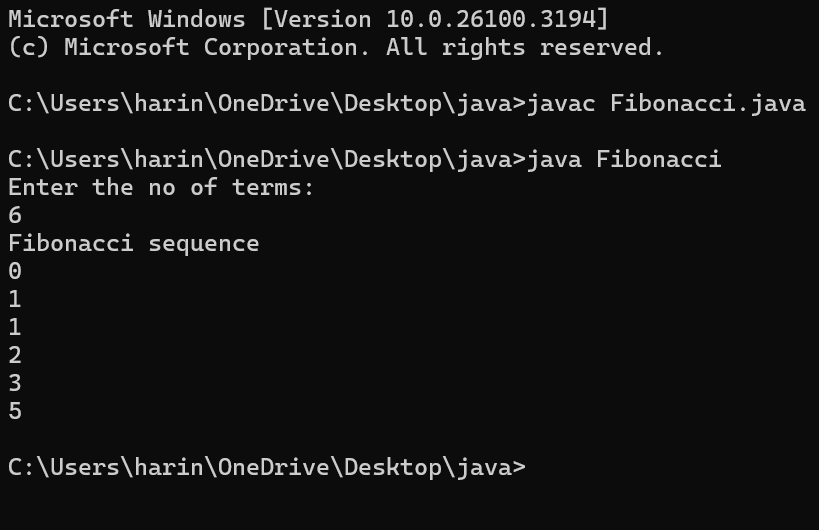
}

scanner.close();

}

}

OUTPUT:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. Giving space between next and Double. 2. Not giving parenthesis after closing the input. | 1. Should not give space between next and Double. 2. We must put parenthesis after closing the input. |

PROGRAM-5:

AIM: Write a java program to find the Area of a rectangle, where all the inputs are taken from the user.

CODE:

import java.util.Scanner;

public class areaofrectangle {

public static void main(String[] args) {

int l, b, Areaofrectangle;

Scanner measurement = new Scanner(System.in);

System.out.println("enter the value of length");

l = measurement.nextInt();

System.out.println("Enter the value of breadth");

b = measurement.nextInt();

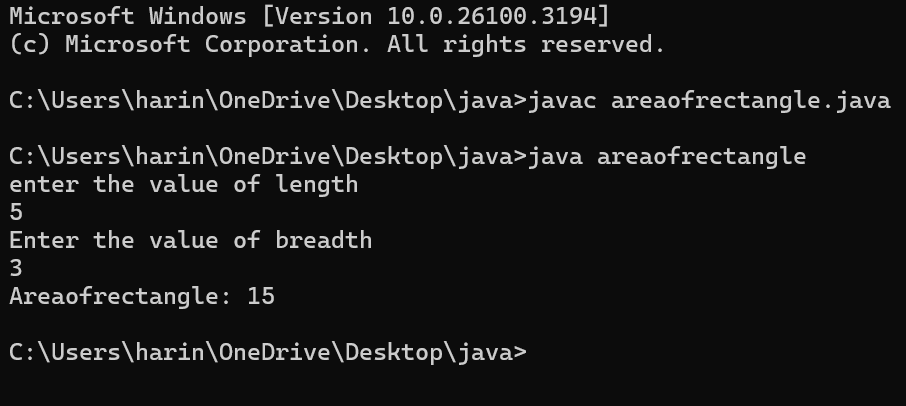
Areaofrectangle = l \* b;

System.out.println("Areaofrectangle: " + Areaofrectangle);

}

}

OUTPUT:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. While using for iteration, not giving the conditions correctly. 2. Declaring the data type as double instead of int. | 1. We should give iterative statements correctly. 2. We should give the data type as int for integers. |

PROGRAM – 6

AIM: Write a java program to find the Area of a Triangle using heron’s formula, where all the inputs are taken from the user.

CODE:

import java.util.Scanner;

public class triangle {

public static void main(String[]args){

Scanner input = new Scanner(System.in);

System.out.println("a: ");

double a = input.nextDouble();

System.out.println("b: ");

double b = input.nextDouble();

System.out.println("c: ");

double c = input.nextDouble();

double s = a+b+c/2;

double area = Math.sqrt(s \* (s - a) \* (s - b) \* (s - c));

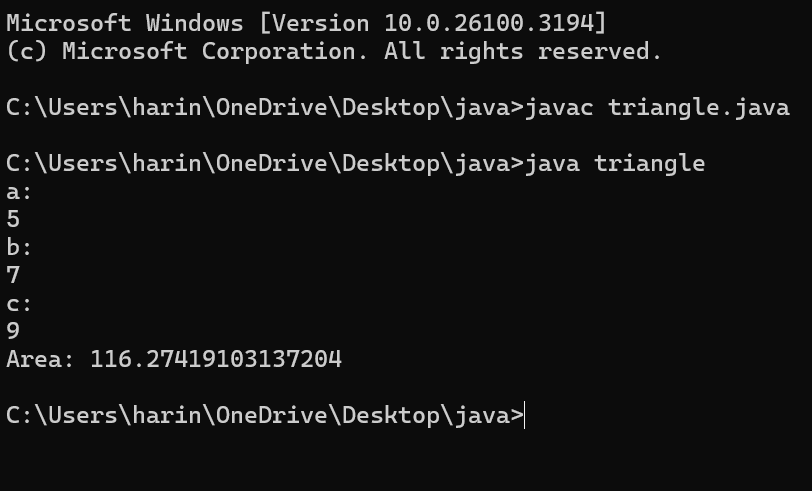
System.out.println("Area: " + area);

input.close();

}

}

OUTPUT:



ERROR TABLE:

|  |  |
| --- | --- |
| **Code Error** | **Code rectification** |
| 1. While printing the variable not giving + sign. 2. Not closing the scanner. | 1. We should give correct indentation. 2. Closing the scanner is must. |