Experiment Number	WEEK 1 LAB 1
Date of Experiment	13/12/2024
Date of Submission	19/12/2024
Name of Student	Shivansh Jha
Roll Number	2330335
Section	ECSc-3

- **Title of the experiment :**

  Introduction to Java

- **Aim of The experiment :**

  - To learn writing, executing and debugging programs related to basic I/O functions.
  - To learn writing, executing and debugging programs related to arithmetic operators.

- **Programming Language used :**

  Java

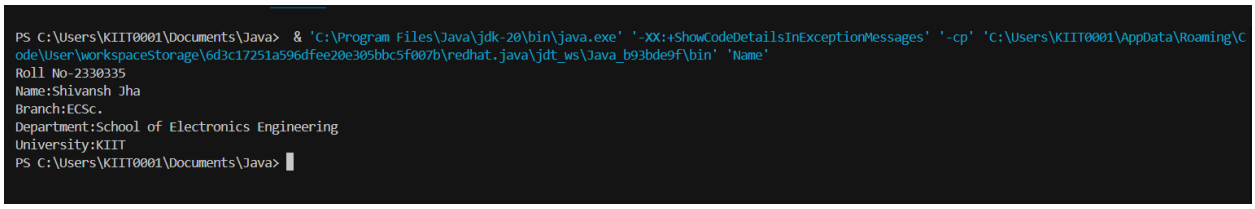
- **Problem Statement & Solution :**

  1. Write a Java program to print the following on the console: “Name”
  “Roll number”
  “Branch”
  “Department”
  “University”

Solution :

```
class Name
{
   public static void main(String[] args)
   {
      System.out.println("Roll No-2330335");
      System.out.println("Name:Shivansh Jha");
      System.out.println("Branch:ECSc.");
      System.out.println("Department:School of Electronics Engineering");
      System.out.println("University:KIIT");
   }
}
```

Output :



2. Write a Java program to find the area and circumference of a circle, given its radius, r.

Solution :

```
class  Area
{
   public static void main(String[] args) {
      int radius= 20;
      System.out.println(3.14*radius*radius);
      System.out.println(2*3.14*radius);
   }
}
```

Output :

```
PS C:\Users\KIIT0001\Documents\Java>  & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\KIIT0001\AppData\Roaming\Code\User\workspaceStorage\6d3c17251a596dfee20e305bbc5f007b\redhat.java\jdt_ws\Java_b93bde9f\bin' 'Area'
1256.0
125.60000000000001
PS C:\Users\KIIT0001\Documents\Java>
```

3. Write a Java program to accept the length and breadth of a rectangle and display its area and perimeter.

Solution :

```
import java.util.*;
public class Exp1c {
   public static void main(String[] args) {
         try (Scanner sc = new Scanner(System.in)) {
         System.out.println("Enter length of rectangle:");
         int l = sc.nextInt();
         System.out.println("Enter breadth of rectangle:");
         int b = sc.nextInt();
         int p = 2 * (l + b);
         System.out.println("The area is "+l*b);
         System.out.println("The perimeter is " +p );
      }
   }
}
```

Output :

```
PS C:\Users\KIIT0001\Documents\Java>  & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\KIIT0001\AppData\Roaming\Code\User\workspaceStorage\6d3c17251a596dfee20e305bbc5f007b\redhat.java\jdt_ws\Java_b93bde9f\bin' 'Exp1c'
Enter length of rectangle:
14
Enter breadth of rectangle:
34
The area is 476
The perimeter is 96
PS C:\Users\KIIT0001\Documents\Java>
```

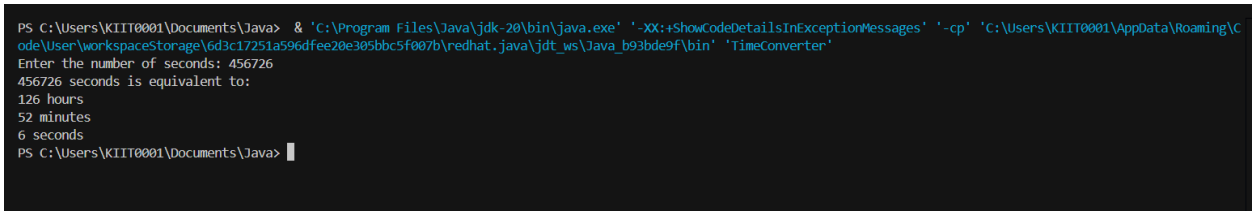
4. Write a Java program to accept the number of seconds and display its equivalent number of hours, number of minutes and number of seconds (Hint: Use / and % operators).

Solution :

```
import java.util.Scanner;

public class TimeConverter {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the number of seconds: ");
        long totalSeconds = scanner.nextLong();
        long hours = totalSeconds / 3600;
        long minutes = (totalSeconds % 3600) / 60;
        long seconds = totalSeconds % 60;
        System.out.println(totalSeconds + " seconds is equivalent to:");
        System.out.println(hours + " hours");
        System.out.println(minutes + " minutes");
        System.out.println(seconds + " seconds");
        scanner.close();
    }
}
```

Output :



- **Conclusion :**

Learned to develop and execute basic Java programs .

Faculty Signature