Experiment Number : 9 **Date: 13.2.2026**

Implementation of a Java Program to import packages using different methods

Aim:

Write a Java program to import packages using different methods for different use cases.

PRE LAB EXERCISE

QUESTIONS

1. How to import a single class and multiple classes from a package in Java?

   Import a single class:

   import java.util.Scanner;

   Import multiple classes (entire package):

   import java.util.*;

2. Which package is always imported by default in every Java class?

   java.lang

   It contains commonly used classes like:

   String

   System

   Math

   Object

   No need to import java.lang explicitly.

IN LAB EXERCISE

Objective

To understand and implement the Java packages using different methods and import them.

Problem

Define a package named ‘useFul’ with a class names ‘UseMe’ having following methods:

1) area()- To calculate the area of given shape.

2) salary()- To calculate the salary given basic Salary,da,hRA.

3) percentage()-To calculate the percentage given total marks and marks obtained.

4) Develop a program named ‘Package Use’ to import the above package ‘useFul’ and use the method area().

5) Develop a program named ‘manager’

Source Code

```
//Package Creation:

package useFull;

import java.util.*;

public class UseMe

{

        Scanner obj=new Scanner(System.in);

public static void area()

      {

          class method{

           void aos(int a)

           {

             System.out.print("\nArea of square with length "+a+" is "+(a*a));

           }

          void aor(int a,int b)

          {

            System.out.print("\nArea of reactangle with dimensions "+a+" & "+b+" is
"+(a*b));

           }

           void aoc(int r)

          {

            double a=3.14*r*r;

           }

          System.out.print("\nArea of circle with radius "+r+" is "+a);

        }

        void aot(int a,int b)

         {

          float ar=(a*b)/2;
```

```
        System.out.print("\nArea of triangle with dimensions "+a+" &"+b+" is "+ar);
      } }
    Scanner obj=new Scanner(System.in);
    method m=new method();
    System.out.print("\n1.Square\n2.Rectangle\n3.Circle\n4.Triangle\nSelect the shape\n");
    int ch=obj.nextInt();
    UseMe u=new UseMe();
    switch(ch)
        {
        case 1:System.out.print("\nEnter the length of side of square : ");
            int s=obj.nextInt();m.aos(s);
            break;
        case 2:System.out.print("\nEnter the dimensions of rectangle : ");
            int l=obj.nextInt();
            int b=obj.nextInt();
            m.aor(l,b);
            break;
        case 3:System.out.print("\nEnter the radius of circle : ");
            int r=obj.nextInt();
            m.aoc(r);
            break;
        case 4:System.out.print("\nEnter the dimensions of triangle : ");
            int ba=obj.nextInt();
            int w=obj.nextInt();
            m.aot(ba,w);
            break; } }
public void salary()
  {
    int ba,da,hra;
    System.out.print("\nEnter the basic salary : ");
```

```
        ba=obj.nextInt();
        System.out.print("\nEnter the dearness allowance :");
        da=obj.nextInt();
        System.out.print("\nEnter the house rent allowance : ");
        hra=obj.nextInt();
        System.out.print("\nThe total Gross salary of employee is : "+(ba+da+hra));
    }
public void percentage()
    {
        int n,sum=0;
        float p;
        System.out.print("\nEnter the total number of subjects : ");
        n=obj.nextInt();
        int m[]=new int[n];
        System.out.print("\nEnter the marks of "+n+" subjects : ");
        for(int i=0;i<n;i++)
        {
            m[n]=obj.nextInt();
        }
        for(int i=0;i<n;i++)
        {
             sum=sum+m[i];
        }
        p=sum/n;
        {
                System.out.print("\nPercentahe of student : "+p);
        }
     }
}
//Package Implementation-1:
```

```
import useFull.UseMe;

class packageUse

{

        public static void main(String args[])

        {

        UseMe o=new UseMe();o.area();

        }

}
```

Output

javac packageUse.java

java packageUse

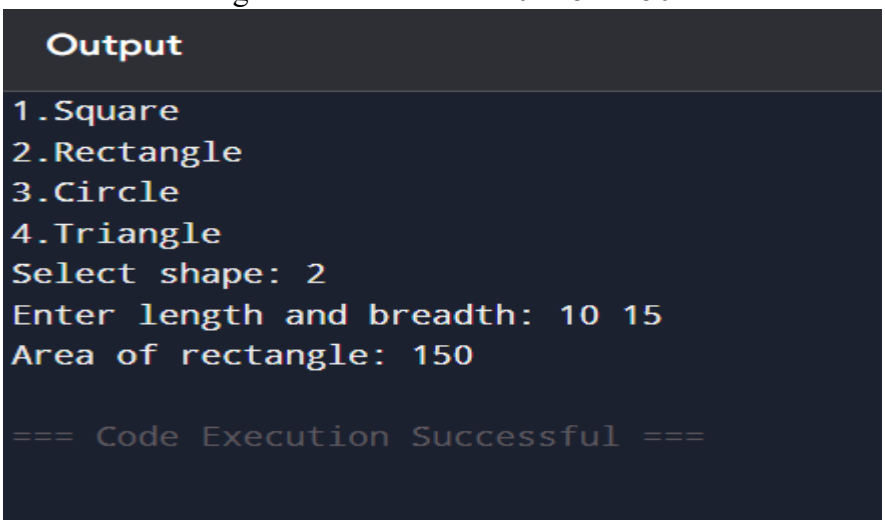
1. Square
2. Rectangle
3. Circle
4. Triangle

   Select the shape

   2

   Enter the dimensions of the rectangle: 10 15

   Area of the rectangle with dimensions 10&15 is 150



//Package Implementation-2:

```
import useFull.UseMe;

class manager

{
```

```
    public static void main(String args[])
    {
     UseMe obj=new UseMe();obj.salary();
     }
}
```

Output

javac manager.java

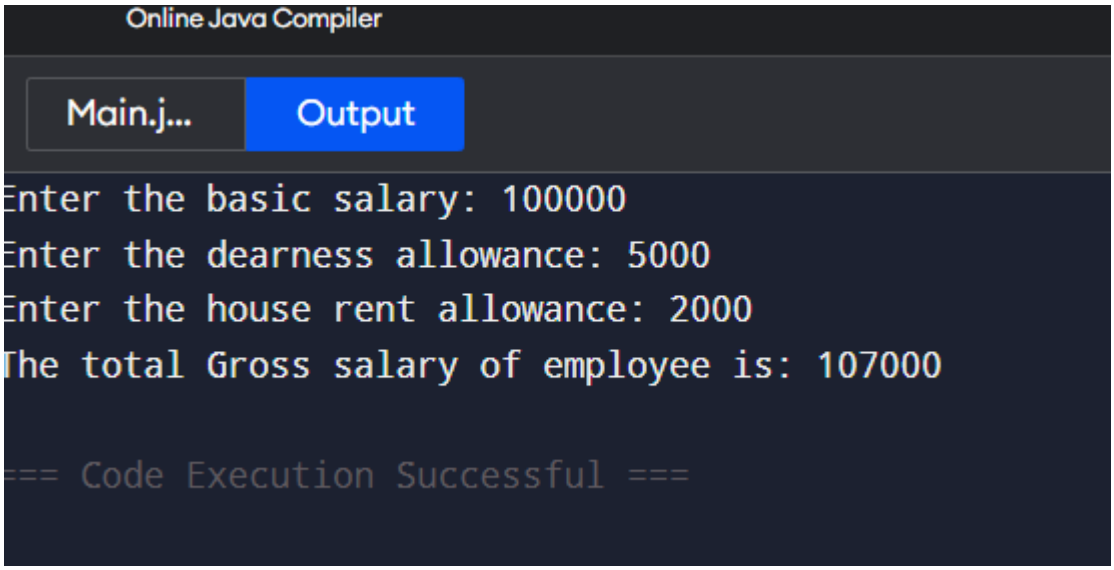
java manager

Enter the basic salary: 100000

Enter the dearness allowance: 5000

Enter the house rent allowance: 2000

The total Gross salary of employee is: 107000



POST LAB EXERCISE

1. Find the key differences between java.util and java.lang packages.

Feature	**java.lang**	**java.util**
Import	Imported automatically	Must be imported manually

Feature	java.lang	java.util
Purpose	Core language classes	Utility & collection classes
Examples	String, System, Math, Object	Scanner, ArrayList, HashMap, Date
Usage	Basic Java functionalit	Data structures & utilities

2. List some of the subpackages of java.util

Some Subpackages of java.util

- java.util.concurrent
- java.util.function
- java.util.stream
- java.util.logging
- java.util.regex
- java.util.jar
- java.util.zip

ASSESSMENT

Description	Max Marks	Marks Awarded
Pre Lab Exercise	**5**	
In Lab Exercise	**10**	
Post Lab Exercise	**5**	
Viva	**10**	
Total	**30**	
Faculty Signature		