***Assignment No. 1***

1. Write a program that takes user’s name as command line argument and prints Welcome <entered user name>.

***Solution:***

import java.util.Scanner;

class UserName

{

public static void main(String args[])

{

String name;

System.out.print("Enter your name : ");

Scanner sc=new Scanner(System.in);

name=sc.nextLine();

System.out.println("Welcome "+name);

}

}

***Output:-***

/\*

Enter your name : Aakash Malvankar

Welcome Aakash Malvankar

\*/

1. Write a program that takes radius of a circle as input. Read the entered radius using Scanner class. Then calculate and print the area and circumference of the circle.

***Solution:***

import java.util.Scanner;

import java.lang.Math;

class Circle\_Area

{

public static void main(String args[])

{

double pi=3.14,area,circumference,radius;

System.out.print("Enter the radius of the Circle : ");

Scanner sc=new Scanner(System.in);

radius=sc.nextDouble();

circumference=2\*pi\*radius;

area=pi\*Math.pow(radius,2);

System.out.println("The Area of the Circle is : "+(int)area);

System.out.println("The Circumference of the Circle is : "+(int)circumference);

}

}

***// Output:-***

/\*

Enter the radius of the Circle : 24

The Area of the Circle is : 1808

The Circumference of the Circle is : 150

\*/

1. Write a program to calculate sum of 5 subject’s marks & find percentage. Take the obtained marks from user using Scanner class. Output should be in this format [ percentage marks = 99 % ]. Use concatenation operator here.

**Solution:**

import java.util.Scanner;

import java.io.\*;

class Total\_Marks

{

public static void main(String args[])

{

double Percentage;

double total\_Obtained=0,total\_Marks=0;

int[] a1 =new int[5];

int[] a2 =new int[5];

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Marks Obtained of te 5 subjects :");

for(int i=0;i<a1.length;i++)//total\_Obtained Input

{

a1[i]=sc.nextInt();

}

System.out.println("Enter the Total Marks of te 5 subjects :");

for(int i=0;i<a2.length;i++)//total\_Marks Input

{

a2[i]=sc.nextInt();

}

for(int i=0;i<a1.length-1;i++)//total\_Obtained

{

total\_Obtained=a1[i]+a1[i+1];

}

for(int i=0;i<a2.length-1;i++)// total\_Marks

{

total\_Marks=a2[i]+a2[i+1];

}

Percentage=(total\_Obtained\*100)/total\_Marks;

System.out.println("The Sum of the marks obtained is : "+total\_Obtained);

System.out.println("Percentage = "+Percentage+" %");

}

}

***// Output:-***

/\*

Enter the Marks Obtained of te 5 subjects :

99

99

9

99

99

Enter the Total Marks of te 5 subjects :

100

100

10

100

110

The Sum of the marks obtained is : 198.0

Percentage = 94.28571428571429 %

\*/

1. Write a program to find the simple interest. Take the principle amount, rate of interest and time from user using Scanner class.

***Solution:***

import java.util.Scanner;

class SI

{

public static void main(String args[])

{

int Simple\_Int,Time=0,rate=0,Principal=0,Total\_Amt=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Principal Amount : ");

Principal=sc.nextInt();

System.out.println("Enter the rate of Interest : ");

rate=sc.nextInt();

System.out.println("Enter the Time for transaction in years : ");

Time=sc.nextInt();

Simple\_Int=(Principal\*rate\*Time)/100;

Total\_Amt=Principal+Simple\_Int;

System.out.println("The Simple interest for the amount "+Principal+" is "+Simple\_Int);

System.out.println("The Total Amount will be "+Total\_Amt);

}

}

***//Output:***

/\*

Enter the Principal Amount :

10000

Enter the rate of Interest :

5

Enter the Time for transaction in years :

10

The Simple interest for the amount 10000 is 5000

The Total Amount will be 15000

\*/

1. Write a program to read the days (eg. 670 days) as integer value using Scanner class. Now convert the entered days into complete years, months and days and print them.

***Solution:***

import java.util.Scanner;

class Day\_Converter

{

public static void main(String args[])

{

int val,temp=0,yr=0,mons=0,d=0;

Scanner sc=new Scanner(System.in);

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

val=sc.nextInt();

temp=val;

while(temp>0)

{

if(temp>365)

{

yr++;

temp=temp-365;

}

else if(temp>30)

{

mons++;

temp=temp-30;

}

else if(temp>1)

{

d++;

temp=temp-1;

}

else

{

break;

}

}

System.out.println("The Number of Days Entered : "+val);

System.out.println("The Number of years : "+yr);

System.out.println("The Number of months : "+mons);

System.out.println("The Number of days : "+d);

}

}

***//Output:***

/\*

Enter the no of days :

670

The Number of Days Entered : 670

The Number of years : 1

The Number of months : 10

The Number of days : 4

\*/

1. Write a program to convert temperature from Fahrenheit to Celsius. Take Fahrenheit as input using Scanner class. [ formula : C= 5\*(f-32)/9 ]

***Solution:***

//[ formula : C= 5\*(f-32)/9 ]

import java.util.Scanner;

class Temp\_Convert

{

public static void main(String args[])

{

double F,C;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the Fahrenheit value");

F=sc.nextDouble();

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

System.out.println("Fahrenheit value : "+F);

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

}

}

***//Output:***

/\*

Enter the Fahrenheit value

45

Fahrenheit value : 45.0

Celsius value : 7.222222222222222

\*/

1. Write a program to swap two numbers without using third variable.

***Solution:***

import java.util.Scanner;

class Swap

{

public static void main(String args[])

{

int a,b;

Scanner sc=new Scanner(System.in);

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

a=sc.nextInt();

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

b=sc.nextInt();

a=a+b;

b=a-b;

a=a-b;

System.out.println("The swapped value of a is : "+a);

System.out.println("The swapped value of b is : "+b);

}

}

***// Output:***

/\*

Enter the value of a :

25

Enter the value of b :

36

The swapped value of a is : 36

The swapped value of b is : 25

\*/

1. In a company an employee is paid as under: If his basic salary is less than Rs. 10000, then HRA = 10% of basic salary and DA = 90% of basic salary. If his salary is either equal to or above Rs. 10000, then HRA = Rs. 2000 and DA = 98% of basic salary. If the employee's salary is input by the user write a program to find his gross salary. [ formula : GS= Basic + DA + HRA ]

***Solution:***

import java.util.Scanner;

class Gross\_Sal

{

public static void main(String args[])

{

double basic\_Sal;

System.out.println("Enter the basic salary : ");

Scanner sc=new Scanner(System.in);

basic\_Sal=sc.nextInt();

sal(basic\_Sal);

}

public static void sal(double j)

{

double HRA,DA,Gross;

if(j>=10000)

{

HRA=2000.0;

DA=(j\*98)/100;

Gross=j+HRA+DA;

}

else

{

HRA=(j\*10)/100;

DA=(j\*90)/100;

Gross=j+HRA+DA;

}

System.out.println("Employees Gross Salary : "+Gross);

}

}

***// Output:-***

/\*

Enter the basic salary :

7000

Employees Gross Salary : 14000.0

\*/