De Practical 1

|  |
| --- |
| 1. **WAP to calculate the addition of two numbers entered by the user** |
|  |

import java.util.\*;

public class addition {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int a, b, c;

System.out.print("Entre value 1 :");

a = sc.nextInt();

System.out.print("Entre value 2 :");

b = sc.nextInt();

c = a + b;

System.out.println("Addition is :" + c);

}

}

output

Entre value 1 :10

Entre value 2 :30

Addition is :40

|  |
| --- |
| 1. WAP to calculate average of three numbers. |

import java.util.\*;

public class Avrage\_three\_number {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int a, b, c;

double avg;

System.out.print("Entre value 1 :");

a = sc.nextInt();

System.out.print("Entre value 2 :");

b = sc.nextInt();

System.out.print("Entre value 3 :");

c = sc.nextInt();

avg = (a + b + c) / 3;

System.out.println("Addition is :" + avg);

ouput

Entre value 1 :100

Entre value 2 :200

Entre value 3 :300

Addition is :200.0

}

}

|  |
| --- |
| 1. WAP to calculate simple interest. Formula: (Si = (P\*R\*N)/100 )   Si = Simple interest, P = Principal amount= Rate of interest, N = Number of years |

import java.util.\*;

public class calculateSimpleInterest {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

double si, r, p, n;

System.out.print("Entre Amount :");

p = sc.nextDouble();

System.out.print("Entre Rate :");

r = sc.nextDouble();

System.out.print("Entre Year :");

n = sc.nextDouble();

si = (r \* n \* p) / 100;

System.out.print("Simple interest :" + si);

}

}

Output

Entre Amount :1000

Entre Rate :5

Entre Year :2

Simple interest :100.0

|  |
| --- |
| 1. WAP to calculate the area of a circle. |

import java.util.\*;

public class AreaOfCircle {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

double r, t;

System.out.print("Entre Vlaue :");

t = sc.nextDouble();

final double PI = 3.14;

r = t \* t \* PI;

System.out.print("the area of a circle :" + r);

}

}

Output

Entre Vlaue :200

the area of a circle :125600.0

|  |
| --- |
| 1. WAP to perform Celsius to Fahrenheit Conversion and Fahrenheit to Celsius conversion. Formula: (f=1.8\*c +32) |

import java.util.Scanner;

public class celsius\_fahrenheit {

public static void main(String[] args) {

float c, f;

System.out.println("Enter celsius value =");

Scanner sc = new Scanner(System.in);

c = sc.nextFloat();

f = (c \* 9 / 5) + 32;

System.out.println("Fahrenheit =" + f);

c = (f - 32) \* 5 / 9;

System.out.println("Celsius = " + c);

}

}

Output

Enter celsius value = 200

Fahrenheit =392.0

Celsius = 200.0

Practical 2

|  |
| --- |
| 1. WAP to check entered number is even or odd. |

import java.util.Scanner;

public class Odd\_Even {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

System.out.print("Enter number :");

int a = s.nextInt();

if (a % 2 == 0) {

System.out.println(a + " number is even");

} else {

System.out.println(a + " number is odd");

}

}

}

Output-Odd

Enter number :5

5 number is odd

Output-Even

Enter number :6

6 number is even

|  |
| --- |
| 1. WAP to find maximum number out of entered three numbers. |

import java.util.Scanner;

public class FindMaximumNumber {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

System.out.print("Enter 1st number : ");

int a = s.nextInt();

System.out.print("Enter 2nd number : ");

int b = s.nextInt();

System.out.print("Enter 3rd number : ");

int c = s.nextInt();

if (a != b || b != c) {

if (a > b && a > c) {

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

} else if (b > c) {

System.out.println(b + " is largest");

} else {

System.out.println(c + " is largest");

}

} else {

System.out.println(c + "is largest");

}

}

}

Output

Enter 1st number : 20

Enter 2nd number : 60

Enter 3rd number : -50

60 is largest

1. WAP to read marks from the keyboard and it should display equivalent grades according to the following table

Marks Grade: 100 - 80 Distinction 79 - 60 First Class

59 - 40 Second Class

< 40 Fail

import java.util.Scanner;

public class DisplayResultGrades {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

System.out.print("Enter marks = ");

int a = s.nextInt();

if (a >= 40) {

if (a >= 80 && a <= 100) {

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

} else if (a >= 60) {

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

} else {

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

}

} else {

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

}

}

}

Output

Enter marks = 79

79 first class

1. WAP to read two numbers and perform addition, subtraction, multiplication, division based on user’s choice.

public class TwoNumber\_ASMD {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int a, b ,ans;

System.out.print("enter number :");

a = sc.nextInt();

System.out.print("enter number :");

b = sc.nextInt();

ans = a + b;

System.out.println("addition :" + ans);

ans = a - b;

System.out.println("subtraction :" + ans);

ans = a \* b;

System.out.println("multiplication :" + ans);

ans = a / b;

System.out.println("division :" + ans);

}

}

Output

enter number :20

enter number :30

addition :50

subtraction :-10

multiplication :600

division :0

}

|  |
| --- |
| 1. WAP that takes two numbers from user and prints addition, Multiplication, Subtraction & Division. (Using Switch-Case & if) |

import java.util.\*;

public class TwoNumber\_ASMD\_TO\_Dynamic {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

System.out.print("Enter 1st number : ");

int a = s.nextInt();

System.out.print("Enter 2nd number :");

int b = s.nextInt();

System.out.println("1 for addition ...");

System.out.println("2 for subtrction ...");

System.out.println("3 for multiplication ...");

System.out.println("4 for division ...");

System.out.print("Enter Your choice :");

int c = s.nextInt();

if (c == 1) {

int d = a + b;

System.out.println("answer is " + d);

} else if (c == 2) {

int d = a - b;

System.out.println("answer is " + d);

} else if (c == 3) {

int d = a \* b;

System.out.println("answer is " + d);

} else if (c == 4) {

int d = a / b;

System.out.println("answer is " + d);

} else {

System.out.println("invalid number ");

}

switch (c) {

case 1:

int d = a + b;

System.out.println("answer is " + d);

break;

case 2:

int d1 = a - b;

System.out.println("answer is " + d1);

break;

case 3:

int d2 = a \* b;

System.out.println("answer is " + d2);

break;

case 4:

int d3 = a / b;

System.out.println("answer is " + d3);

break;

default:

System.out.println(" invalid number");

}

}

}

Output

Enter 1st number : 50

Enter 2nd number :4

1 for addition ...

2 for subtrction ...

3 for multiplication ...

4 for division ...

Enter Your choice :4

answer is 12

answer is 12

Practical 3

|  |
| --- |
| 1. WAP to print 1 to n. |

import java.util.\*;

public class PrintNumber {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n;

System.out.print("Enter Number :");

n = sc.nextInt();

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

System.out.print(" " + i);

}

}

}

Output

Enter Number :17

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

|  |
| --- |
| 2. WAP to calculate sum and average of given n numbers. |

import java.util.\*;

public class SumAvgNumber {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int sum = 0, n;

double avg;

System.out.print("Enter Size :");

n = sc.nextInt();

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

System.out.print("Enter Value :");

sum += sc.nextInt();

}

avg = sum / n;

System.out.println("Sum of :" + sum);

System.out.println("Avrage of :" + avg);

}

}

Output

Enter Size :7

Enter Value :10

Enter Value :20

Enter Value :30

Enter Value :40

Enter Value :50

Enter Value :70

Enter Value :-30

Sum of :190

Avrage of :27.0

|  |
| --- |
| 3. WAP to find factorial of a given number. |

import java.util.\*;

public class Factorial {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

int n, fact = 1;

System.out.print("Enter Number : ");

n = s.nextInt();

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

fact \*= i;

}

System.out.print("Factorial is :" + fact);

}

}

Output

Enter Number : 20

Factorial is :-2102132736

|  |
| --- |
| 4. WAP to find factors of a given number. |
| import java.util.\*;  public class Factors {  public static void main(String[] args) {  Scanner s = new Scanner(System.in);  int n;  System.out.print("Enter Number : ");  n = s.nextInt();  for (int i = 1; i <= n; i++) {  if (n % i == 0) {  System.out.print(" " + i);  }  }  }  } |

Output

Enter Number : 20

1 2 4 5 10 20

|  |
| --- |
| 5.WAP to check given number is prime or not. |

mport java.util.\*;

public class CheckPrimeNumber {

public static void main(String[] args) {

Scanner s = new Scanner(System.in);

int n, flag = 0;

System.out.print("Enter Number : ");

n = s.nextInt();

for (int i = 2; i < n; i++) {

if (n % i == 0) {

flag = 1;

break;

}

}

if (flag == 0) {

System.out.println("Number is prime :" + n);

} else {

System.out.println("Number is not prime :" + n);

}

}

}

Output:-1

Enter Number : 47

Number is prime :47

Output:-2

Enter Number : 117

Number is not prime :117

Practical 4

|  |
| --- |
| 1. WAP to store n number in an array and print in reverse order. |

import java.util.\*;

public class ArrayDynamicCreateAndReversPrint {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n;

System.out.println("Enter Array Size :");

n = sc.nextInt();

int[] arr = new int[n];

for (int i = 0; i < n; i++) {

System.out.print("Enter Array value [" + (i + 1) + "]:");

arr[i] = sc.nextInt();

}

for (int i = n - 1; i > -1; i--) {

System.out.println("Array value [" + (i + 1) + "]:" + arr[i]);

}

}

}

Output

Enter Array Size :

7

Enter Array value [1]:1

Enter Array value [2]:2

Enter Array value [3]:3

Enter Array value [4]:4

Enter Array value [5]:5

Enter Array value [6]:6

Enter Array value [7]:7

Array value [7]:7

Array value [6]:6

Array value [5]:5

Array value [4]:4

Array value [3]:3

Array value [2]:2

Array value [1]:1

|  |
| --- |
| 2. WAP to calculate sum and average of numbers from an array. |

import java.util.\*;

public class ArrayDynamicCreateAndReversPrint {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n, sum = 0;

double avg;

System.out.println("Enter Array Size :");

n = sc.nextInt();

int[] arr = new int[n];

for (int i = 0; i < n; i++) {

System.out.print("Enter Array value [" + (i + 1) + "]:");

arr[i] = sc.nextInt();

sum += arr[i];

}

avg = sum / n;

System.out.println("Sum of Array Is :" + sum);

System.out.println("Avrage of Array is :" + avg);

}

}

Output

Enter Array Size :

7

Enter Array value [1]:20

Enter Array value [2]:30

Enter Array value [3]:50

Enter Array value [4]:60

Enter Array value [5]:80

Enter Array value [6]:80

Enter Array value [7]:-50

Sum of Array Is :270

Avrage of Array is :38.0

|  |
| --- |
| 3. WAP to find maximum and minimum number from an array. |

import java.util.\*;

class array\_max\_min {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n, max = 0, min = 0;

System.out.println("Enter Array Size :");

n = sc.nextInt();

int[] a = new int[n];

for (int i = 0; i < n; i++) {

System.out.print("Enter Array value [" + (i + 1) + "]:");

a[i] = sc.nextInt();

if (i == 0) {

max = a[0];

min = a[0];

}

if (max < a[i]) {

max = a[i];

}

if (min > a[i]) {

min = a[i];

}

}

System.out.println("max is =" + max + "\n min is =" + min);

}

}

Output

Enter Array Size :

7

Enter Array value [1]:-10

Enter Array value [2]:20

Enter Array value [3]:-30

Enter Array value [4]:40

Enter Array value [5]:-90

Enter Array value [6]:50

Enter Array value [7]:46

max is =50

min is =-90

|  |
| --- |
| 4. WAP to calculate unique numbers in an array. |

import java.util.\*;

public class array\_unique {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int size;

System.out.println("Enter Size of Array =");

size = sc.nextInt();

int[] a = new int[size];

for (int i = 0; i < size; i++) {

System.out.println("Enter Vlaue = [" + (i + 1) + "] =");

a[i] = sc.nextInt();

}

for (int i = 0; i < size; i++) {

System.out.println("Vlaue = " + a[i]);

}

for (int i = 0; i < size; i++) {

int temp = 0;

for (int j = 0; j < size; j++) {

if (a[i] == a[j]) {

temp++;

}

}

if (temp == 1) {

System.out.println("Uniquw number is =" + a[i]);

}

}

}

}

Output

Enter Size of Array =

6

Enter Vlaue = [1] =

20

Enter Vlaue = [2] =

30

Enter Vlaue = [3] =

50

Enter Vlaue = [4] =

20

Enter Vlaue = [5] =

60

Enter Vlaue = [6] =

10

Vlaue = 20

Vlaue = 30

Vlaue = 50

Vlaue = 20

Vlaue = 60

Vlaue = 10

Uniquw number is =30

Uniquw number is =50

Uniquw number is =60

Uniquw number is =10

|  |
| --- |
| 5. WAP to sort elements of an array in ascending order. |

import java.util.\*;

class array\_sorting {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int n;

System.out.println("Enter Array Size :");

n = sc.nextInt();

int[] a = new int[n];

for (int i = 0; i < n; i++) {

System.out.print("Enter Array value [" + (i + 1) + "]:");

a[i] = sc.nextInt();

}

for (int i = 0; i < n - 1; i++) {

{

if (a[i] > a[i + 1]) {

int temp = 0;

temp = a[i + 1];

a[i + 1] = a[i];

a[i] = temp;

continue;

}

}

}

for (int i = 0; i < n; i++) {

System.out.println(a[i]);

}

}

}

Output

Enter Array Size :

5

Enter Array value [1]:20

Enter Array value [2]:10

Enter Array value [3]:50

Enter Array value [4]:40

Enter Array value [5]:60

10

20

40

50

60

Practical 5

|  |
| --- |
| 1. WAP to find equality of two strings. If both the string are equal then print its length else concat both the strings |

**import** java.util.Scanner;

**public** **class** string\_1 {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter string 1:-");

String n1= s.nextLine();

System.***out***.println("Enter string 2:-");

String n2= s.nextLine();

**if**(n1.equals(n2))

{

System.***out***.println("length is "+n1.length());

}**else**

{

System.***out***.println("concat string is "+(n1+n2));

}

}

}

Output:-1

Enter string 1:-

kaif

Enter string 2:-

kaif

length is 4

Output:-2

Enter string 1:-

kaif

Enter string 2:-

ansari

concat string is kaifansari

|  |
| --- |
| 2. Write a program to check whether given word is palindrome or not. |

**import** java.util.Scanner;

**public** **class** string\_palindrom {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter string :-");

String n1= s.next();

String rev="";

**for**(**int** i=n1.length()-1;i>=0;i--)

{

rev=rev+n1.charAt(i);

}

**if**(rev.equals(n1))

{

System.***out***.println(n1+" is palindrome ");

}**else**

{

System.***out***.println(n1+" is not palindrome ");

}

}

}

Output:-1

Enter string :-

aba

aba is palindrome

Output:-2

Enter string :-

abc

abc is not palindrome

|  |
| --- |
| 3. Write a program to count number of occurrences of a character in a given string |

**import** java.util.Scanner;

**public** **class** string\_occurence {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter string :-");

String n1= s.next();

System.***out***.println("Enter charcter:-");

**char** n2= s.next().charAt(0);

**int** count=0;

**for**(**int** i=0;i<n1.length()-1;i++)

{

**if**(n1.charAt(i)==n2)

{

count++;

}

}

System.***out***.println("total occurence is "+count);

}

}

Output

Enter string :-

siddharth

Enter charcter:-

d

total occurence is 2

|  |
| --- |
| 4. WAP to convert a given String to Upper case and then to Lower case |

**import** java.util.Scanner;

**public** **class** up\_lo {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter String");

String s1 = s.nextLine();

System.***out***.println("uppercase "+s1.toUpperCase());

System.***out***.println("lowercase "+s1.toLowerCase());

}

}

Output

Enter String

DARSHAN university

uppercase DARSHAN UNIVERSITY

lowercase darshan university

|  |
| --- |
| 5. WAP to a Reverse a string entered by user. |

**import** java.util.Scanner;

**public** **class** string\_palindrom {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter string :-");

String n1= s.next();

String rev="";

**for**(**int** i=n1.length()-1;i>=0;i--)

{

rev=rev+n1.charAt(i);

}

System.***out***.println(rev);

}

}

Output

Enter string :-

darshan

nahsrad

Practical 6

|  |
| --- |
| 1. WAP to print “Hello World” in function. |

public class HelloWorlsInFunction {

public void Hello() {

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

}

public static void main(String[] args) {

// call function

HelloWorlsInFunction h1 = new HelloWorlsInFunction();

h1.Hello();

}

}

Output

Hello World ...

|  |
| --- |
| 2. WAP to calculate and print Area of Circle in function |

public class AreaOfCircle {

double Circle(double r) {

return r \* r \* 3.14;

}

public static void main(String[] args) {

AreaOfCircle a1 = new AreaOfCircle();

double temp;

double value;

value = 50.6;

temp = a1.Circle(value);

System.out.println("Circle Area :" + temp);

}

}

Output

Circle Area :8039.530400000001

|  |
| --- |
| 3. WAP to return the square of a number from a function |

public class SquareFunction {

public double square(double r) {

return r \* r;

}

public static void main(String[] args) {

SquareFunction a1 = new SquareFunction();

double temp;

double value;

value = 5;

temp = a1.square(value);

System.out.println("Quare of :" + temp);

}

}

Output

Quare of :25.0

|  |
| --- |
| 4. WAP to swap value of two variables using function. |
| public class SwappValueFunction {  public void Swapp(int a, int b) {  int c;  System.out.println("Befor Swapp ..a is " + a + " and B is " + b);  c = a;  a = b;  b = c;  System.out.println("After Swapp A is " + a + " and B is " + b);  }  public static void main(String[] args) {  SwappValueFunction a1 = new SwappValueFunction();  a1.Swapp(10, 20);  }  } |

Output

Befor Swapp ..a is 10 and B is 20

After Swapp A is 20 and B is 10

Practical 7

|  |
| --- |
| 1. WAP to Display Student Details using class & objects |

**import** java.util.Scanner;

**class** data1{

**int** Rno;

String name,branch;

**void** display() {

System.***out***.println("Rno is "+Rno);

System.***out***.println("Name is "+name);

System.***out***.println("Branch is "+branch);

}

}

**public** **class** stud\_detail {

**public** **static** **void** main(String[] args) {

data1 d = **new** data1();

Scanner s= **new** Scanner(System.***in***);

System.***out***.println("Enter Rno");

d.Rno= s.nextInt();

System.***out***.println("Enter name");

d.name= s.next();

System.***out***.println("Enter branch");

d.branch= s.next();

d.display();

}

}

Output

Enter Rno

101

Enter name

kaif

Enter branch

mca

Rno is 101

Name is kaif

Branch is mca

|  |
| --- |
| 2. Write a program to create a circle class with an area() function to find an area of a circle |

**import** java.util.Scanner;

**class** circle

{

**double** r;

**void** area()

{

System.***out***.println("area of cirlce is"+(3.15\*r\*r));

}

}

**public** **class** area\_of\_circle {

**public** **static** **void** main(String[] args) {

circle c = **new** circle();

Scanner s= **new** Scanner(System.***in***);

System.***out***.println("Enter R");

c.r= s.nextDouble();

c.area();

}

}

Output

Enter R

20.25

area of cirlce is1291.696875

|  |
| --- |
| 3. WAP that creates class book, having public functions getdata() for inserting data of book (title, author, price) by user, and display() for display those data using class and object. |

**import** java.util.Scanner;

**class** getdata{

**void** display(String t,String a,**int** p)

{

System.***out***.println("Title name is"+t);

System.***out***.println("Author name is "+a);

System.***out***.println("Price is "+p);

}

}

**public** **class** book\_info {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter tiltle name ");

String t= s.next();

System.***out***.println("Enter author name ");

String a= s.next();

System.***out***.println("Enter price ");

**int** p= s.nextInt();

getdata gd= **new** getdata();

gd.display(t,a,p);

}

}

Output

Enter tiltle name

java

Enter author name

abcd

Enter price

46225

Title name isjava

Author name is abcd

Price is 46225

|  |
| --- |
| 4. Create a class that asks the user to enter a sentence and it should display the count of each vowel type in the sentence using method count(). |

**import** java.util.Scanner;

**class** vcount{

**int** count(String str)

{

**int** count=0;

**for**(**int** i=0;i<str.length();i++)

{

**if**(str.charAt(i)=='A'||str.charAt(i)=='a'||str.charAt(i)=='E'||str.charAt(i)=='e'||str.charAt(i)=='I'||str.charAt(i)=='i'||str.charAt(i)=='O'||str.charAt(i)=='o'||str.charAt(i)=='U'||str.charAt(i)=='u')

{

count++;

}

}

**return** count;

}

}

**public** **class** vowel\_Count

{

**public** **static** **void** main(String[] args)

{

vcount vc = **new** vcount();

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter String");

String str = s.nextLine();

**int** ans=vc.count(str);

System.***out***.println("Total vowel is "+ans);

}

}

Output

Enter String

darshan university

Total vowel is 6

5.WAP that defines a class to represent a bank account, include the following members:

Data members: (a) Name of the depositor (b) Account number (c) Type of account (d) Balance amount

Member functions: (a) To assign initial values (b) To deposit an amount (c) To withdraw an amount after checking the balance (d) To display name and balance Demonstrate the use of default, parameterized and copy constructor for above calculation

**import** java.util.Scanner;

**class** data{

**int** act\_no;

String act\_type,depo\_name;

**int** balance;

data(**int** balance)

{

**this**.balance=balance;

}

**void** deposit(**int** a)

{

balance= balance+a;

System.***out***.println("Total balace is "+(balance));

}

**void** withdrew(**int** a1)

{

**int** balance1=balance;

**if**(balance >=a1 && (balance>1000 && (balance-a1)>=1000))

{

balance=balance-a1;

System.***out***.println("Avalabile balance is "+balance);

}**else**

{

System.***out***.println(" balance is insufficiant or not less than 1000 blanace ");

}

}

**void** display()

{

System.***out***.println("name is :"+depo\_name);

System.***out***.println("balance is: "+balance);

}

}

**public** **class** bank\_info

{

**public** **static** **void** main(String[] args) {

data d = **new** data(1000);

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter depo name");

d.depo\_name = s.next();

System.***out***.println("Enter acc no");

d.act\_no = s.nextInt();

System.***out***.println("Enter acc type");

d.act\_type = s.next();

**while** (**true**) {

System.***out***.println(" 1 for deposit amount");

System.***out***.println(" 2 for withdrew amount and checked");

System.***out***.println(" 3 displat your info");

System.***out***.println(" 4 for exit");

**int** ans = s.nextInt();

**if**(ans==1)

{

System.***out***.println("Enter deposit amount");

**int** a = s.nextInt();

d.deposit(a);

}

**else** **if**(ans==2)

{

System.***out***.println("Enter withdrew amount");

**int** a1 = s.nextInt();

d.withdrew(a1);

}**else** **if** (ans==3) {

d.display();

}**else**

{

System.*exit*(0);

}

}

}

}

Output

Enter depo name

abc

Enter acc no

123456789

Enter acc type

saving

1 for deposit amount

2 for withdrew amount and checked

3 displat your info

4 for exit

1

Enter deposit amount

1000

Total balace is 2000

1 for deposit amount

2 for withdrew amount and checked

3 displat your info

4 for exit

2

Enter withdrew amount

1000

Avalabile balance is 1000

1 for deposit amount

2 for withdrew amount and checked

3 displat your info

4 for exit

3

name is :abc

balance is: 1000

1 for deposit amount

2 for withdrew amount and checked

3 displat your info

4 for exit

4

Practical 8

1.WAP to determine the Area of Rectangle using constructors. Create atleast two objects of a rectangle.

**package** construct\_with\_inheri;

**import** java.util.Scanner;

**class** area

{

area(**double** l,**double** w)

{

System.***out***.println("area of rectangle is "+(l+w));

}

}

**public** **class** area\_with\_cons {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter length ");

**double** l=s.nextDouble();

System.***out***.println("Enter width ");

**double** w=s.nextDouble();

area a = **new** area(l, w);

}

}

Output

Enter length

20.155

Enter width

12.254

area of rectangle is 32.409

2.WAP to Display Student Details using constructor

class Student {

Student() {

System.out.println(" ... Student Constructer is call ... ");

}

public void ShowStudentDetails() {

System.out.println(" ... Student details is ... ");

System.out.println("Name : Siddharth");

System.out.println("Roll Number : 117");

System.out.println("Mobile : 0987654321");

System.out.println("Department : Computer ");

System.out.println(" ... End Student details ... ");

}

}

public class student\_details2 {

public static void main(String[] args) {

Student s1 = new Student();

s1.ShowStudentDetails();

}

}

Output

... Student Constructer is call ...

... Student details is ...

Name : Siddharth

Roll Number : 117

Mobile : 0987654321

Department : Computer

... End Student details ...

3.WAP to enter student details by Passing parameters to constructors.

import java.util.\*;

class Student {

int Roll;

String Name;

String Mobile;

String Dept;

Student() {

System.out.println(" ... Student Constructer is call ... ");

Roll = 117;

Name = "Siddharth";

Mobile = "0987654321";

Dept = "Computer";

}

Student(int Roll, String Name, String Mobile) {

this.Roll = Roll;

this.Name = Name;

this.Mobile = Mobile;

this.Dept = "Computer";

}

Student(int Roll, String Name, String Mobile, String Dept) {

this.Roll = Roll;

this.Name = Name;

this.Mobile = Mobile;

this.Dept = Dept;

}

public void ShowStudentDetails() {

System.out.println(" ... Student details is ... ");

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

System.out.println("Roll Number :" + Roll);

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

System.out.println("Department :" + Dept);

System.out.println(" ... End Student details ... ");

}

}

public class student\_details {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

// no parameter

Student s1 = new Student();

s1.ShowStudentDetails();

System.out.println(" ... Enter Student details ... ");

System.out.print("Name :");

String Name = sc.next();

System.out.print("Roll Number :");

int Roll = sc.nextInt();

System.out.print("Mobile Number :");

String Mobile = sc.next();

// three parameters

Student s2 = new Student(Roll, Name, Mobile);

s2.ShowStudentDetails();

System.out.println(" ... Enter Student details ... ");

System.out.print("Name :");

Name = sc.next();

System.out.print("Roll Number :");

Roll = sc.nextInt();

System.out.print("Mobile Number :");

Mobile = sc.next();

System.out.print("Department :");

String Dept = sc.next();

// all parameters

Student s3 = new Student(Roll, Name, Mobile, Dept);

s3.ShowStudentDetails();

}

}

Output

... Student Constructer is call ...

... Student details is ...

Name :Siddharth

Roll Number :117

Mobile :0987654321

Department :Computer

... End Student details ...

... Enter Student details ...

Name :Ravi

Roll Number :118

Mobile Number :0987654321

... Student details is ...

Name :Ravi

Roll Number :118

Mobile :0987654321

Department :Computer

... End Student details ...

... Enter Student details ...

Name :Kishan

Roll Number :109

Mobile Number :098765431

Department :Computer

... Student details is ...

Name :Kishan

Roll Number :109

Mobile :098765431

Department :Computer

... End Student details ...

Practical 9

1.WAP to demonstrate single inheritance, multilevel inheritance and hierarchical inheritance.

Single inheritance

**package** inheritance\_polymorphishm;

**class** a{

a()

{

System.***out***.println("i am parent class");

}

}

**class** b **extends** a{

b(){

System.***out***.println("i am child class");

}

}

**public** **class** singleinheritance {

**public** **static** **void** main(String[] args) {

b b1 = **new** b();

}

}

Output

i am parent class

i am child class

multilevel inheritance

**package** inheritance\_polymorphishm;

**class** M{

M()

{

System.***out***.println("i am parent class");

}

}

**class** M1 **extends** M{

M1()

{

System.***out***.println("i am child of M class");

}

}

**class** M2 **extends** M1

{

M2()

{

System.***out***.println("i am child of M1 class");

}

}

**public** **class** multilvl

{

**public** **static** **void** main(String[] args) {

M2 m2 = **new** M2();

}

}

Output

i am parent class

i am child of M class

i am child of M1 class

hierarchical inheritance

**package** inheritance\_polymorphishm;

**class** H{

**void** display()

{

System.***out***.println("i am parent class");

}

}

**class** H1 **extends** H{

**void** display1()

{

System.***out***.println("i am child of from H1");

}

}

**class** H2 **extends** H{

**void** display2()

{

**super**.display();

System.***out***.println("i am child of from H2");

}

}

**public** **class** hirenchi {

**public** **static** **void** main(String[] args) {

H2 h2 = **new** H2();

h2.display2();

H1 h1 = **new** H1();

h1.display1();

}

}

Output

i am parent class

i am child of from H2

i am child of from H1

2.Create a class named shape. In this class, we have three subclasses circle, triangle and square. WAP to display area of all three classes.

**package** inheritance;

**import** java.util.Scanner;

**class** circle{

**void** circle (**double** r)

{

System.***out***.println("area of circle is "+(3.15\*r\*r));

}

}

**class** tringle **extends** circle

{

**void** tringle(**double** h,**double** b)

{

System.***out***.println("area of tringle is "+(h\*b)/2);

}

}

**class** square **extends** circle{

**void** squrae(**double** a)

{

System.***out***.println("area of square is "+(a\*a));

}

}

**public** **class** shape {

**public** **static** **void** main(String[] args) {

square s = **new** square();

Scanner s1 = **new** Scanner(System.***in***);

System.***out***.println("Enter area of circle");

**double** r = s1.nextDouble();

s.circle(r);

//s.circle(20);

System.***out***.println("Enter area of tringle");

**double** a = s1.nextDouble();

s.squrae(a);

tringle t = **new** tringle();

System.***out***.println("Enter area of hight");

**double** h = s1.nextDouble();

System.***out***.println("Enter area of base");

**double** b = s1.nextDouble();

t.tringle(h, b);

//t.tringle(40, 20);

}

}

Output

Enter area of circle

12.25

area of circle is 472.696875

Enter area of tringle

23.25

area of square is 540.5625

Enter area of hight

23

Enter area of base

15

area of tringle is 172.5

3.WAP for implementing single inheritance which creates one class account\_details for getting account information and another class interest for calculating and displaying total interest from the data inserted from account details.

import java.util.\*;

class AccountDetails {

String AccountNumber;

double Balance = 0;

String Name;

String AccountType;

double Interest;

public void AccountDetailShow() {

System.out.println("Your Account Details is ..");

System.out.println("Accounr Number :" + AccountNumber);

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

System.out.println("Account Type :" + AccountType);

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

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

}

}

class Interest\_Calculate extends AccountDetails {

double Rate;

double Year;

double Amount;

public void Calculate\_Interest() {

Interest = (Rate \* Amount \* Year) / 100;

Balance = Amount - Interest;

}

}

class lab8\_3\_bank\_interest {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Interest\_Calculate b1 = new Interest\_Calculate();

System.out.println(" ...Enter Account Details ... ");

System.out.print("Account Number : ");

b1.AccountNumber = sc.next();

System.out.print("Name :");

b1.Name = sc.next();

System.out.print("Account Type :");

b1.AccountType = sc.next();

System.out.println(" ...Enter Inerest details ...");

System.out.print("Ammount :");

b1.Amount = sc.nextDouble();

System.out.print("Year :");

b1.Year = sc.nextDouble();

System.out.print("Rate :");

b1.Rate = sc.nextDouble();

b1.Calculate\_Interest();

b1.AccountDetailShow();

}

}

Output

...Enter Account Details ...

Account Number : 117

Name :kaif

Account Type :Saving

...Enter Inerest details ...

Ammount :50000

Year :2

Rate :7

Your Account Details is ..

Accounr Number :117

Name :Siddharth

Account Type :Saving

Balance :43000.0

Interest :7000.0

4. WAP which has three classes student\_data, marks and percentage, calculate percentage of a student by implementing multilevel inheritance.

import java.util.\*;

class Student\_Data {

int Roll, Oop, Python, Dbms, Total;

double Percentage;

String Name, Branch;

public void ShowStudentDetails() {

System.out.println(" ... Student details is ... ");

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

System.out.println("Roll Number :" + Roll);

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

System.out.println("OOP mark :" + Oop);

System.out.println("PYTHON mark :" + Python);

System.out.println("DBMS mark :" + Dbms);

System.out.println("Total marks :" + Total);

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

}

}

class Marks extends Student\_Data {

public void marks(int Oop, int Python, int Dbms) {

this.Oop = Oop;

this.Python = Python;

this.Dbms = Dbms;

}

}

class Percentage extends Marks {

public void percentage() {

Total = Oop + Python + Dbms;

Percentage = Total / 3;

}

}

public class lab8\_4\_Student {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Percentage s1 = new Percentage();

System.out.println(" ... Enter Student details ... ");

System.out.print("Name :");

s1.Name = sc.next();

System.out.print("Roll Number :");

s1.Roll = sc.nextInt();

System.out.print("Branch :");

s1.Branch = sc.next();

System.out.print("OOP mark :");

s1.Oop = sc.nextInt();

System.out.print("PYTHON mark :");

s1.Python = sc.nextInt();

System.out.print("DBMS mark :");

s1.Dbms = sc.nextInt();

s1.percentage();

s1.ShowStudentDetails();

}

}

Output

. Enter Student details ...

Name :Siddharth

Roll Number :117

Branch :Computer

OOP mark :39

PYTHON mark :40

DBMS mark :53

... Student details is ...

Name :Siddharth

Roll Number :117

Branch :Computer

OOP mark :39

PYTHON mark :40

DBMS mark :53

Total marks :132

Percentage :44.0

5.WAP Create a Base & Derived class with show () & print show () method of both class.

class Base {

public void show() {

System.out.println("Base class Show method is call ...");

}

}

class Derived extends Base {

public void show() {

super.show();

System.out.println("Derived class Show method is call ...");

}

}

public class lab8\_6\_base\_and\_derived {

public static void main(String[] args) {

Derived d1 = new Derived();

d1.show();

}

}

Output

Base class Show method is call ...

Derived class Show method is call ...

6.WAP for swapping values of two numbers. (With using third variable and without using third variable)

class Swapp {

int value1;

int value2;

public void swapp\_value() {

int temp;

temp = value1;

value1 = value2;

value2 = temp;

}

public void swapp\_without\_variable() {

value1 += value2;

value2 = value1 - value2;

value1 = value1 - value2;

}

}

public class lab8\_7\_swapp {

public static void main(String[] args) {

Swapp s1 = new Swapp();

s1.value1 = 10;

s1.value2 = 20;

System.out.println("Befor Swapp ...");

System.out.println("Vlaue 1 :" + s1.value1);

System.out.println("Vlaue 2 :" + s1.value2);

s1.swapp\_value();

System.out.println("After Swapp ...");

System.out.println("Vlaue 1 :" + s1.value1);

System.out.println("Vlaue 2 :" + s1.value2);

s1.value1 = -10;

s1.value2 = 20;

s1.swapp\_without\_variable();

System.out.println("After Swapp without variable ...");

System.out.println("Vlaue 1 :" + s1.value1);

System.out.println("Vlaue 2 :" + s1.value2);

}

}

Output

Befor Swapp ...

Vlaue 1 :10

Vlaue 2 :20

After Swapp ...

Vlaue 1 :20

Vlaue 2 :10

After Swapp without variable ...

Vlaue 1 :20

Vlaue 2 :-10

Practical 10

1.Create an abstract class pen with methods write () and refill () as abstract methods

abstract class Pan {

abstract public void write();

abstract public void refill();

}

class WriteFill extends Pan {

public void write() {

System.out.println("Write Method Is Call");

}

public void refill() {

System.out.println("Refill Method Is Call");

}

}

public class Abstract\_pan {

public static void main(String[] args) {

WriteFill wf = new WriteFill();

wf.write();

wf.refill();

}

}

Output

Write Method Is Call

Refill Method Is Call

2.WAP to generate an abstract class A also class B inherits the class A. generate the object for class B and display the text “call me from B”

abstract class A {

abstract public void CallMe();

}

class B extends A {

public void CallMe() {

System.out.println("call me from B");

}

}

public class Abstract\_Class\_A\_B {

public static void main(String[] args) {

B b = new B();

b.CallMe();

}

}

Output

call me from B

3.WAP which you will declare an abstract class Vehicle inherits this class from two classes car and truck using the method engine in both display “car has good engine” and “truck has bad engine”.

abstract class Vehicle {

abstract public void CarTruck();

}

class Car extends Vehicle {

public void CarTruck() {

System.out.println("car has good engine");

}

}

class Truck extends Vehicle {

public void CarTruck() {

System.out.println("truck has bad engine");

}

}

public class Abstract\_CAr\_Truck {

public static void main(String[] args) {

Car c = new Car();

c.CarTruck();

Truck t = new Truck();

t.CarTruck();

}

}

Output

car has good engine

truck has bad engine

4.Create an interface TV\_remote and use it to inherit another interface smart\_TV\_remote. Create a class TV that implements the TVremote interface.

**package** stack\_with\_interface;

**interface** tv\_remote{

**void** tv\_remotes1();

}

**interface** smart\_tv\_remote **extends** tv\_remote

{

**void** smart\_tv();

}

**class** tv\_show **implements** smart\_tv\_remote{

**public** **void** tv\_remotes1() {

// **TODO** Auto-generated method stub

System.***out***.println("i am tv\_remotes() interface");

}

**public** **void** smart\_tv()

{

System.***out***.println("i am smart\_tv() interface");

}

}

**public** **class** tv {

**public** **static** **void** main(String[] args) {

tv\_show t = **new** tv\_show();

t.tv\_remotes1();

t.smart\_tv();

}

}

Output

i am tv\_remotes() interface

i am smart\_tv() interface