**1.WAP to display even numbers upto ‘n’ using a static function**

import java.io.\*;

import java.lang.\*;

class Prgm

{

public static int i=0;

public static void display(int n)

{

System.out.println("the array is:");

for(i=0;i<=n;i=i+2)

{

System.out.println(i);

}

}

}

class Even6

{

public static void main(String args[])

{

try

{

int n;

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the limit");

n=Integer.parseInt(dir.readLine());

Prgm.display(n);

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

}

**2.WAP (menu driven) to demonstrate function overriding in java, by displaying details of a student, and a teacher.**

import java.io.\*;

import java.lang.\*;

import java.util.Scanner;

class person

{

int pno;

String pname;

void read()

{

try

{

Scanner console=new Scanner(System.in);

DataInputStream dir=new DataInputStream(System.in);

System.out.println("Enter the Person num");

pno=Integer.parseInt(dir.readLine());

System.out.println("Enter the Person name");

pname=console.nextLine();

}

catch(Exception e)

{

System.out.println("eror"+e);

}

}

void disp()

{

System.out.println("Person num="+pno);

System.out.println("Person name="+pname);

}

}

class student extends person

{

int sno;

String sname;

void read()

{

try

{

Scanner console=new Scanner(System.in);

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the student num");

sno=Integer.parseInt(dir.readLine());

System.out.println("enter the student name");

sname=console.nextLine();

}

catch(Exception e)

{

System.out.println("eror"+e);

}

}

void disp()

{

System.out.println("Student num="+sno);

System.out.println("Student name="+sname);

}

}

class teacher extends person

{

int tno;

String tname;

void read()

{

try

{

Scanner console=new Scanner(System.in);

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the teacher num");

tno=Integer.parseInt(dir.readLine());

System.out.println("enter the teacher name");

tname=console.nextLine();

}

catch(Exception e)

{

System.out.println("eror"+e);

}

}

void disp()

{

System.out.println("Teacher num="+tno);

System.out.println("Teacher name="+tname);

}

}

class StuTeacher1

{

public static void main(String args[])

{

try

{

student obj1 = new student();

teacher obj2 = new teacher();

int ch=1,c;

System.out.println("OVERRIDING IN JAVA");

DataInputStream dir1=new DataInputStream(System.in);

do {

System.out.println("1.read the details\n2.display the details");

c=Integer.parseInt(dir1.readLine());

switch(c)

{

case 1:obj1.read();

obj2.read();

break;

case 2:obj1.disp();

obj2.disp();

break;

}

System.out.println("do you want to continue(1/0)");

ch=Integer.parseInt(dir1.readLine());

} while (ch==1);

}

catch(Exception e)

{

System.out.println("eror"+e);

}

}

}

**3.Create a class for Employee having eno,ename and esal as data members.Provide functions for reading and displaying employee details.(Accept information of n employees in the main function, display the same and search for an emp(using eno)).**

import java.io.\*;

import java.lang.\*;

import java.util.Scanner;

class Prgm

{

public String name;

public int number,sal;

public void read()

{

try

{

Scanner console=new Scanner(System.in);

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the employee name");

name=console.nextLine();

System.out.println("enter the employee number");

number=Integer.parseInt(dir.readLine());

System.out.println("enter the employee salary");

sal=Integer.parseInt(dir.readLine());

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

public void display()

{

System.out.println("employee id="+number);

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

System.out.println("salary="+sal);

}

}

class Employee2

{

public static void main(String args[])

{

try

{

int i,n;

Prgm obj[]=new Prgm[10];

DataInputStream dir1=new DataInputStream(System.in);

System.out.println("enter the number of employees");

n=Integer.parseInt(dir1.readLine());

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

{

obj[i]=new Prgm();

obj[i].read();

}

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

{

obj[i].display();

}

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

}

**4.Program to implement run time polymorphism in Java using interface, wrt calculating area of a triangle.**

import java.io.\*;

import java.lang.\*;

interface triangle

{

public Double Area(Double b,Double h);

}

class Prgm implements triangle

{

public Double Area(Double b,Double h)

{

return 0.5\*b\*h;}

}

class TriArea1

{

public static void main(String args[])

{

try

{

Double b,h,r;

DataInputStream dis=new DataInputStream(System.in);

System.out.println("enter the b=");

b=Double.parseDouble(dis.readLine());

System.out.println("enter the h=");

h=Double.parseDouble(dis.readLine());

triangle obj=new Prgm();

r=obj.Area(b,h);

System.out.println("output="+r);

}

catch(Exception e)

{

System.out.println("error"+e);}}}

**5.Create an interface Shape having two prototypes disp() and calc(), to diplay the shape and calculate volume respectively. Create two classes circle and rectangle which implements the above interface. In the main function create a reference of Shape depending on the user-choice.**

import java.io.\*;

import java.lang.\*;

interface shape

{

public void disp();

public void calc();

}

class Circle implements shape

{

public void disp()

{

System.out.println("The shape is circle");

}

public void calc()

{

try

{

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the radius:");

Double r=Double.parseDouble(dir.readLine());

Double a=3.14\*r\*r;

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

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

}

class Rectangle implements shape

{

public void disp()

{

System.out.println("The Shape is rectangle");

}

public void calc()

{

try

{

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the length:");

Double l=Double.parseDouble(dir.readLine());

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

Double b=Double.parseDouble(dir.readLine());

Double a=l\*b;

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

}

catch(Exception e)

{

System.out.println("error"+e);

}}

class Area2

{

public static void main(String args[])

{

try

{

int ch=1,c;

Circle obj=new Circle();

Rectangle obj1=new Rectangle();

DataInputStream dir=new DataInputStream(System.in);

do

{

System.out.println("1.area of circle\n2.area of rectangle\n");

c=Integer.parseInt(dir.readLine());

switch(c)

{

case 1:obj.disp();

obj.calc();

break;

case 2:obj1.disp();

obj1.calc();

break;

}

System.out.println("do you want to continue(1/0):");

ch=Integer.parseInt(dir.readLine());

}while(ch==1);

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

}

**6.WAP to implement a function using call by value to swap two float numbers.**

import java.io.\*;

import java.lang.\*;

class Prgm

{

public void swap(float a,float b)

{

float temp=a;

a=b;

b=temp;

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

System.out.println("b="+b);

}

}

class SwapFloat3

{

public static void main(String args[])

{

try

{

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the 1st element=");

float a=Float.parseFloat(dir.readLine());

System.out.println("enterthe 2nd element=");

float b=Float.parseFloat(dir.readLine());

Prgm obj=new Prgm();

obj.swap(a,b);

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

System.out.println("b="+b);

}

catch(Exception e)

{

System.out.println("error"+e);}}}

**7.WAP to implement a function using call by reference to find the square root of a given number.**

import java.io.\*;

import java.lang.\*;

class Prgm

{

public int squareroot(int a)

{

return(a\*a);

}

}

class value

{

public int a;

}

class Function4

{

public static void main(String args[])

{

try

{

DataInputStream dir=new DataInputStream(System.in);

System.out.println("enter the 1st element=");

value p=new value();

p.a=Integer.parseInt(dir.readLine());

Prgm obj=new Prgm();

int r=obj.squareroot(p.a);

System.out.println("Squareroot is="+r);

}

catch(Exception e)

{

System.out.println("error"+e);

}

}

}