class A{

int x;

void add(){

System.out.println(" X : "+x);

}

}

class B extends A{

int y;

void sum(){

System.out.println(" X : "+x+" Y : "+y);

}

}

class Demo5{

public static void main(String aa[]){

B s1 = new B();

s1.x=100;

s1.add();

s1.y=200;

s1.sum();

System.out.println("--------");

A s2 = s1;

s2.add();

System.out.println("--------");

B s3 = (B)s2;

s3.add();

s3.sum();

}

}

-------------------------------------------------

class A{

int x;

void add(){

System.out.println(" X : "+x);

}

}

class B extends A{

int y;

void sum(){

System.out.println(" Y : "+y);

}

}

class Demo{

public static void main(String aa[]){

B s1=new B();

s1.x=100;

s1.y=200;

s1.add();

s1.sum();

System.out.println("--------");

A s2=s1;

s2.add();

System.out.println("--------");

Object s3=s2;

System.out.println("---------");

A s4=(A)s3;

s4.add();

System.out.println("---------");

B s5=(B)s4;

s5.add();

s5.sum();

}

}

---------------------------------------------------------

class A

{

void add()

{

System.out.println("Welcome");

}

}

class B extends A

{

}

class Demo

{

public static void main(String aa[])

{

A s1=new A();

A s2=new B();

B s3=new B();

s1.add();

s2.add();

s3.add();

}

}

----------------------------------------------------

class Demo

{

public static void main(String args[])

{

int a[][]=new int[2][2];

a[0][0]=100;

a[0][1]=200;

a[1][0]=300;

a[1][1]=400;

int v;

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

{

for(int j=0;j<2;j++)

{

v=a[i][j];

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

}

System.out.println();

}

}

}

-------------------------------------------------

abstract class Bike{

Bike()

{

System.out.println("bike is created");

}

abstract void run();

void changeGear()

{

System.out.println("gear changed");}

}

class Honda extends Bike{

void run()

{

System.out.println("running safely..");

}

}

class TestAbstraction2{

public static void main(String args[]){

Bike obj = new Honda();

obj.run();

obj.changeGear();

}

}

------------------------------------------

class Demo

{

public static void main(String args[])

{

try

{

System.out.println("Connection Opened ");

int a=100/2;

System.out.println(" A : "+a);

int b[]={10,20,30,40};

System.out.println(" B : "+b[2]);

System.out.println("Connection Closed ");

}

catch(ArithmeticException e)

{

System.out.println("Can't Divide by zero");

}

catch(ArrayIndexOutOfBoundsException e)

{

System.out.println("Array Index Out Of Range");

}

}

}