1. **Write a Program to explain Constructor.**
2. **Write a Program of multilevel inheritance.**
3. **Write a Program to explain the concept of method overriding.**
4. **Write a Program to explain super keyword.**
5. **Write a Program of implementing interface.**
6. **Write a Program to explain array index out of bound exception.**
7. **Write a Program to explain arithmetic exception.**
8. **Write a Program to find the factorial of n numbers.**
9. **Write a Program to generate Fibonacci Series.**
10. **Write a Program to**
11. **Write a Program to explain Constructor.**

**Program :-**

class Student{

    int id;

    String name;

    Student(int i, String n){

    id = i;

    name = n;

    }

    void display(){System.out.println(id+" "+name);}

    public static void main(String args[]){

    Student s1 = new Student(111,"Karan");

    Student s2 = new Student(222,"Aryan");

    Student s3 = new Student(333,"Ajay");

    Student s4 = new Student(444,"Vijay");

    Student s5 = new Student(555,"Vihaan");

    s1.display();

    s2.display();

    s3.display();

    s4.display();

    s5.display();

   }

}

[**Test it Now**](http://www.javatpoint.com/opr/test.jsp?filename=Student4)

Output:

111 Karan

222 Aryan

333 Ajay

444 Vijay

555 Vihaan

1. **Write a Program of multilevel inheritance.**

**Program :-**

class Car{

public Car()

{

System.out.println("Class Car");

}

public void vehicleType()

{

System.out.println("Vehicle Type: Car");

}

}

class Maruti extends Car{

public Maruti()

{

System.out.println("Class Maruti");

}

public void brand()

{

System.out.println("Brand: Maruti");

}

public void speed()

{

System.out.println("Max: 90Kmph");

}

}

public class Maruti800 extends Maruti{

public Maruti800()

{

System.out.println("Maruti Model: 800");

}

public void speed()

{

System.out.println("Max: 80Kmph");

}

public static void main(String args[])

{

Maruti800 obj=new Maruti800();

obj.vehicleType();

obj.brand();

obj.speed();

}

}

**Output:**

Class Car

Class Maruti

Maruti Model: 800

Vehicle Type: Car

Brand: Maruti

Max: 80Kmph

1. **Write a Program to explain the concept of method overriding.**

**Program :-**

class Human{

//Overridden method

public void eat()

{

System.out.println("Human is eating");

}

}

class Boy extends Human{

//Overriding method

public void eat(){

System.out.println("Boy is eating");

}

public static void main( String args[]) {

Boy obj = new Boy();

//This will call the child class version of eat()

obj.eat();

}

}

**Output:**

Boy is eating

1. **Write a Program to explain super keyword.**

**Program :-**

//Parent class or Superclass or base class

class Superclass

{

int num = 100;

}

//Child class or subclass or derived class

class Subclass extends Superclass

{

/\* The same variable num is declared in the Subclass

\* which is already present in the Superclass

\*/

int num = 110;

void printNumber(){

System.out.println(num);

}

public static void main(String args[]){

Subclass obj= new Subclass();

obj.printNumber();

}

}

**Output:**

110

1. **Write a Program of implementing interface.**

**Program :-**

interface Bank{

float rateOfInterest();

}

class SBI implements Bank{

public float rateOfInterest(){return 9.15f;}

}

class PNB implements Bank{

public float rateOfInterest(){return 9.7f;}

}

class TestInterface2{

public static void main(String[] args){

Bank b=new SBI();

System.out.println("ROI: "+b.rateOfInterest());

}}

**Output:**

ROI: 9.15

1. **Write a Program to explain array index out of bound exception.**

**Program :-**

class ExceptionDemo2

{

public static void main(String args[])

{

try{

int a[]=new int[10];

//Array has only 10 elements

a[11] = 9;

}

catch(ArrayIndexOutOfBoundsException e){

System.out.println ("ArrayIndexOutOfBounds");

}

}

}

**Output:**

ArrayIndexOutOfBounds

1. **Write a Program to explain arithmetic exception.**

**Program :-**

class Example1

{

public static void main(String args[])

{

try{

int num1=30, num2=0;

int output=num1/num2;

System.out.println ("Result: "+output);

}

catch(ArithmeticException e){

System.out.println ("You Shouldn't divide a number by zero");

}

}

}

**Output:**

You Shouldn't divide a number by zero

1. **Write a Program to find the factorial of n numbers.**

**Program :-**

public class JavaExample {

public static void main(String[] args) {

//We will find the factorial of this number

int number = 5;

long fact = 1;

for(int i = 1; i <= number; i++)

{

fact = fact \* i;

}

System.out.println("Factorial of "+number+" is: "+fact);

}

}

**Output:**

Factorial of 5 is: 120

1. **Write a Program to generate Fibonacci Series.**

**Program :-**

class FibonacciExample1{

public static void main(String args[])

{

 int n1=0,n2=1,n3,i,count=10;

 System.out.print(n1+" "+n2);//printing 0 and 1

 for(i=2;i<count;++i)//loop starts from 2 because 0 and 1 are already printed

 {

  n3=n1+n2;

  System.out.print(" "+n3);

  n1=n2;

  n2=n3;

 }

}}

**Output:**

0 1 1 2 3 5 8 13 21 34

1. **Write a Program to explain array index out of bound exception.**

**Program :-**

**Output:**