**Subject : Java Programming**

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**Program 1:**

class Outer {

int a;

void test() {

Inner in =new Inner();

in.display();

}

Outer(int a) {

this.a = a;

}

class Inner {

void display(){

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

}

}

}

public class MyClass{

public static void main(String args[]){

Outer out = new Outer(10);

out.test();

Outer.Inner in = new Outer(5).new Inner();

in.display();

}

}

**Program 2: Local Class**

class Outer {

int a;

void test() {

Inner in =new Inner();

in.display();

}

Outer(int a) {

this.a = a;

}

class Inner {

void display(){

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

}

}

void localTest(){

class localInner{

void test(){

System.out.println("a is accessed in local class"+a);

}

}

localInner li = new localInner();

li.test();

}

}

public class MyClass{

public static void main(String args[]){

Outer out = new Outer(10);

out.test();

out.localTest();

Outer.Inner in = new Outer(5).new Inner();

in.display();

}

}

**Program 3: Anonymous Class**

class Outer{

int a;

void test(){

Inner in =new Inner();

in.display();

}

Outer(int a){

this.a=a;

}

class Inner{

void display(){

System.out.println("this value is a :"+a);

}

}

void localTest(){

class LocalInner{

void test(){

System.out.println("A is accessed in local class "+a);

}

}

LocalInner li=new LocalInner();

li.test();

}

}

abstract class Annotest{

public abstract void print();

}

public class Main{

public static void main(String args[]){

Outer out=new Outer(15);

out.test();

out.localTest();

Outer.Inner in=new Outer(5).new Inner();

in.display();

Annotest at = new Annotest(){

public void print(){

System.out.println("test statement anonymous class");

}

};

at.print();

}

}

**Program 4: Array List**

import java.util.\*;

public class MyClass{

public static void main(String args[]){

ArrayList<String> al = new ArrayList<String>();

ArrayList<Integer> ai = new ArrayList<Integer>();

ArrayList<Float> af = new ArrayList<Float>();

System.out.println("The size of array is"+al.size());

al.add("sai");

al.add("ganesh");

al.add("gowtham");

al.add("ramya");

al.add("adithya");

al.add(2, "koti");

System.out.println("Array List contents are: "+al);

al.remove("ganesh");

al.remove(3);

System.out.println("the six=ze of the arraylist "+al.size());

System.out.println("Array List contents are: "+al);

ai.add(20);

ai.add(10);

af.add(10.5f);

af.add(20.5f);

System.out.println("Integer ArrayList "+ai);

System.out.println("Float Array List "+af);

}

}