**package** j2se;

**class** Addition

{

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

{

**int** a=10,b=20,c;

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

System.*out*.println("value of b is"+b);

c=a+b;

System.*out*.println("addition result is:"+c);

}

}

**package** j2se;

//Default values of datatypes

//byte 0,short 0,int 0,long 0,float 0.0, double 0.0,char aspas,

//String null,any class type null,boolean false

**public** **class** DtypeOperators {

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

**int** i=30,j=20;

String s="Mantra";

**double** d=123.5;

**float** f=1223.5f;

**char** ch='l';

System.*out*.println("s:"+s);

System.*out*.println("d:"+d);

System.*out*.println("f:"+f);

System.*out*.println("ch:"+ch);

System.*out*.println("s:"+s+"d:"+d+"f:"+f+"ch:"+ch);

System.*out*.println("i+j="+(i+j));

System.*out*.println("i-j="+(i-j));

System.*out*.println("i\*j="+(i\*j));

System.*out*.println("i/j="+(i/j));

System.*out*.println("i%j="+(i%j));

i=i+20;

//i +=20;

//unary operator

System.*out*.println(-i);//(-)nagate a given value

//post increment

System.*out*.println("post increment");

System.*out*.println("value of i is: "+i);

System.*out*.println("value of i++ is: "+(i++));

System.*out*.println("value of i is: "+i);

//pre increment

System.*out*.println("pre increment");

System.*out*.println("value of i is: "+i);

System.*out*.println("value of i++ is: "+(++i));

System.*out*.println("value of i is: "+i);

}

}

**package** j2se;

**class** Loops

{

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

{

**int** i=0;

**while**(i<=5)

{

System.*out*.println(i);

i++;

}

**for**(i=0;i<=10;i++)

{

System.*out*.println(i);

}

**do**

{

System.*out*.println(i);

i++;

}**while**(i<=20);

}

}

**package** j2se;

**public** **class** Controlestmts {

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

**int** x=-10;

**if**(x==0)

System.*out*.println("it is zero");

**else** **if**(x>0)

System.*out*.println("it positive number");

**else** **if**(x<0)

System.*out*.println("it nagative number");

/\*DoWhile loop

int x;

x=1;

do{

System.out.println(x);

x++;

}while(x<10);

/\*While loop

int x;

x=1;

while(x<=10){

System.out.println(x);

x++;

}

\*/

**for**(**int** i=0;i<=10;i++){

System.*out*.println("i="+i);

}

}

}

**package** j2se;

**public** **class** NestedFor {

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

**int** x=5;

**for**(**int** i=1;i<=x;i++)

{

**for**( **int** j=1;j<i;j++)

{

System.*out*.print("\*");

}

System.*out*.println();

}

}

}

**package** j2se;

**public** **class** Switchcase1 {

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

/\* char color='g';//color is set to g

switch (color) {

case 'r':System.out.println("RED");

case 'g':System.out.println("GREEN");

case 'b':System.out.println("BLUE");

}

\*/

**char** color='g';//color is set to g

**switch** (color) {

**case** 'r':System.*out*.println("RED");**break**;

**case** 'g':System.*out*.println("GREEN");**break**;

**case** 'b':System.*out*.println("BLUE");**break**;

**default**:System.*out*.println("NO color");

}

}

}

**package** j2se;

//private:not accessible for outside classes

//public:any where

//protected:acces with in the direct0ry

//default:without any accespecifier declaration

**class** Person {

//instace variables are initialized

**protected** String name="lakshman";

**private** **int** age=12;

**int** authercardno=12345;//here taken defalut AccesSpecifier

// method

**public** **void** method(){

System.*out*.println("Hello I am "+name);

System.*out*.println("my age is "+age);

System.*out*.println("my authercardno is "+authercardno);

}

}

**public** **class** AccesSpecifiers {

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

Person p=**new** Person();//object creation

p.method();//call the method

}

}

**package** j2se;

**public** **class** ArrayDemo {

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

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

System.*out*.println(" length of array "+arr.length);

//float sal[]={67467.67,67656.88,515454.115}

//char ch[]={'a','b','c'};

//String names={"RAJU","RAVI","RANI"};

**for**(**int** i=0;i<=3;i++){

System.*out*.println(arr[i]);

}

//int x[][]={{1,2},{3,4}};

//System.out.println(x[][]);

}

}

**package** j2se;

//initialized the instance variables

//constructor & class name must be equal

//constructor is called at the time of creating object.

//constructor is called only once for an object

//constructor executed automatically

**class** Person1 {

//instance variables are initialized

**private** String name;

**private** **int** age;

// constructor

Person1(){

name="Ramu";

age=22;

}

// parameterized constructor

Person1(String s,**int** n){

name=s;

age=n;

}

// method

**void** method(){

System.*out*.println("Hello I am "+name);

System.*out*.println("my age is "+age);

}

}

**public** **class** ConstructorDemo {

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

Person1 p=**new** Person1();

p.method();

Person1 p2=**new** Person1("sita",20);

p2.method();

}

}

**package** j2se;

**class** Wa

{

**int** a;

**int** b;

Wa()

{

a=2;

b=3;

System.*out*.println(a);

System.*out*.println(b);

//return a+b;

}

/\*Wa(int x)

{

a=x;

System.out.println("ADD"+(a+b));

}\*/

Wa(**int** x,**int** y)

{

a=x;

b=y;

System.*out*.println(" "+(a+b));

}

}

**class** AddDemoReturn

{

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

{

Wa ob=**new** Wa();

Wa ob1=**new** Wa(10,2);

}

}

**package** j2se;

**class** Student

{

String name;

**int** rollno;

Student(String x,**int** y)

{

name=x;

rollno=y;

System.*out*.println(name+" "+rollno);

}

}

**class** Marks **extends** Student

{

**int** math1,math2;

Marks(String x,**int** y,**int** m1,**int** m2)

{

**super**(x,y);

math1=m1;

math2=m2;

System.*out*.println(math1+" "+math2);

}

**public** **int** total()

{

**return** math1+math2;

}

}

**class** Aggr **extends** Marks

{

Aggr()

{

**super**("siri",20,20,20);

}

**int** disp()

{

**return** ((math1+math2)/2);

}

}

**class** constructors1

{

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

{

Aggr ob;

//Marks ob;

ob=**new** Aggr();

//System.out.println("Student marks"));

System.*out*.println("Total marks are"+ob.total());

System.*out*.println("Average marks are"+ob.disp());

}

}

**package** j2se;

**class** constructor {

**private** String name;

**private** **int** age;

constructor()

{

name="lakshman";

age=25;

}

**void** talk()

{

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

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

}

}

**class** defaultconstructor

{

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

constructor cont=**new** constructor();

cont.talk();

}

}

**package** j2se;

**class** constructor2 {

**private** **double** num1,num2;

constructor2(**double** x,**double** y)

{

num1=x;

num2=y;

}

**void** sum()

{

**double** res=num1+num2;

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

}

}

**class** parameterconstructor1

{

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

constructor2 cont=**new** constructor2(10,20.5);

cont.sum();

}

}

**package** j2se;

**class** constructor1 {

**private** String name;

**private** **int** age;

constructor1()

{

name="lakshman";

age=25;

}

constructor1(String l,**int** a)

{

name=l;

age=a;

}

**void** talk()

{

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

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

}

}

**class** parameterconstructor

{

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

constructor1 cont=**new** constructor1();

cont.talk();

constructor1 cont1=**new** constructor1("lucky",24);

cont1.talk();

}

}

**class** Access{

//private int b=22;

**protected** **int** b=33;

}

**class** Sub1 **extends** Access{

**public** **void** get(){

//System.out.println(a);//error bcz a is private variable

System.*out*.println(b);

}

}

**public** **class** ProtectedSpesifier {

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

Sub1 s=**new** Sub1();

s.get();

}

}