**Core Java**

* Break and continues

// break and continues code

**public** **class** BreakandCont

{

**public** **void** show()

{

System.***out***.println("This is First");

//break;

System.***out***.println("This is Last");

}

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

{

/\*BreakandCont bc= new BreakandCont();

bc.show();\*/

**for**(**int** i=0; i<100; i++){

**if**(i>=6 && i<=7)

**continue**;

**if**(i==50)

**break**; // break point which executes the remaining values

System.***out***.println(i);

}

}

* Calculator

**public** **class** Calculator

{

**public** **int** getsum(**int** i, **int** j){

**int** c= i+j;

**return** c;

}

**public** **int** getsub(**int** i, **int** j){

**return** i-j;

}

**public** **int** getmul(**int** i, **int** j){

**return** i\*j;

}

}

* DoWhile Loop

// do while loop program

**public** **class** Dowhileloop {

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

**int** i=20;

**do**

{

System.***out***.println(i);

i++; // increments upto 20

}

**while**(i<=10); // come out of the do loop

System.***out***.println("After while loop");

}

}

* ForLoop

// for loop

**public** **class** Forllop {

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

**int** i=1;

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

{

System.***out***.println(i);

i++; // incrementing the i value

}

}

}

* IfElse statemet

// if else statements

**public** **class** IfElseStatements {

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

{

**int** num= (**int**)(Math.*random*()\*20);

System.***out***.println(num);

**if**(num>10)

{

System.***out***.println(num+ "is greater than 10"); // executes below 10 numbers

}

**else** **if**(num<10 && num>5)

{

System.***out***.println(num+ "between 10 and 15");// executes 10 to 15 values

}

**else**

{

System.***out***.println(num+ "is less than 10"); // executes above 10 number

}

}

* Method Creation

// creating methods

**public** **class** Method

{

**int** i;

**int** j;

**public** **void** display() // method creation

{

i=10;

j=20;

//System.out.println(i);

}

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

{

/\* Method m= new Method();

m.display(); \*/

/\*Home h= new Home();

h.i++;

Home h1= new Home();

h1.i++;

Home h2= new Home();

System.out.println(h2.i);\*/

Calculator cal= **new** Calculator(); // object creation

**int** i= cal.getsum(6,12);

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

System.***out***.println(cal.getmul(2, 4));

System.***out***.println(cal.getsub(6, 3));

}

}

* Method Calling

**public** **class** Methodcalling {

**public** **void** show()

{

**int** i;

System.***out***.println("Inside the first method");

show2(); // calling show2 method in show method

System.***out***.println("This is after show2 method");

}

**public** **void** show1()

{

System.***out***.println("Inside the second method");

show(); // calling show method in show1 method

System.***out***.println("This is after show method");

}

**public** **void** show2()

{

System.***out***.println("Inside the third method");

show1(); // calling show1 method in show2 method

}

**public** **static** **void** show3()

{

System.***out***.println("Inside the fourth method");

}

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

{

Methodcalling mc= **new** Methodcalling();

mc.show1(); // object creation

System.***out***.println("After calling show1 method");

}

}

While Loop

// simple while loop program

**public** **class** Whileloop

{

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

{

**int** i=1;

**while**(i<=10)

{

System.***out***.println("Value:"+ i);

i++;

}

}

}

* **package** JavaConcepts;

**import** java.util.ArrayList;

**public** **class** Addingelement

{

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

{

// **TODO** Auto-generated method stub

// Create an ArrayList that holds references to String

ArrayList<String>names = **new** ArrayList<String>();

// Capacity starts at 10, but size starts at 0

System.***out***.println("initial size:"+ names.size() );

// Add three String references

names.add("Teju");

names.add("Neelima");

names.add("Satya");

System.***out***.println("new size:" + names.size() );

// Access and print out the Objects

**for** ( **int** i=0; i<names.size(); i++ )

System.***out***.println("element" + i + ":" + names.get(i) );

}

}

* Arrays

// single dimension array

**package** JavaConcepts;

// single dimension array

// A container which stores multiple values with a single data type

**public** **class** Arraysbasics

{

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

{

// how to declare array by allocating memory for the values (Traditional way)

**int** c[]= **new** **int**[5];

c[0]=2;

c[1]=4;

c[2]=6;

c[3]=3;

c[4]=1; // Initialized values into that array

**int** b[]= {5,4,3,2,1}; // straight forward way

**for**(**int** i=0; i<b.length;i++) // length is a method, which displays the size of the array

{

System.***out***.println(b[i]); // retrieve values present in that array

}

}

}

* Constructor

**package** JavaConcepts;

**public** **class** Constructorbasics

{

// constructor will not return any values

// constructor name should be the class name

**public** Constructorbasics() // default constructor

{

System.***out***.println("This is teju's constructor");

}

**public** Constructorbasics(**int** i, **int** j) // constructor with parameters

{

i=10;

j=20;

System.***out***.println(" This is a constructor parameter ");

}

**public** **void** inside()

{

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

}

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

{

// whenever the object is created constructor is called

Constructorbasics cb= **new** Constructorbasics();

Constructorbasics c= **new** Constructorbasics(10,20); // creating object and passing values

}

}

/\*public Class(int x, int y)

{

System.out.println(x+y);

}\*/

* **Exceptions**

**package** JavaConcepts;

**public** **class** Exceptionbasics

{

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

{

**try**

{

**int** a=2, b=0;

**int** c= a/b;

System.***out***.println(c);

}

**catch**(ArithmeticException e)

{

System.***out***.println("this is catch block");

}

**finally**

{

System.***out***.println("This is finally block");

}

}

}

Overriding

**package** JavaConcepts;

// sub class which can access the parent class by using the extends keyword

**public** **class** Student **extends** University

{

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

{

Student s= **new** Student();

s.Names();

s.City();

s.Section();

System.***out***.println(s.s);

}

}

**package** JavaConcepts;

// parent class in method over riding

**public** **class** University

{

/\*private String Neelima;

private String age;

private String mailid;

private int salary;\*/

String s= "Teju";

**public** **void** Names()

{

System.***out***.println("Nancy");

System.***out***.println("Debra");

System.***out***.println("Katie");

}

**public** **void** Section(){

System.***out***.println("A");

System.***out***.println("B");

System.***out***.println("C");

}

**public** **void** City(){

System.***out***.println("Dallas");

System.***out***.println("Plano");

System.***out***.println("Irving");

}

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

{

}

}