**Method Overloading:**

**package** concepts;

**public** **class** Overloading1 {

**public** **void** method1(**int** a, String b, **int** c){

System.***out***.println("Method1");

}

**public** **void** method1(String a, **int** b){

System.***out***.println("Method2");

}

}

**package** concepts;

**public** **class** Overloading2 {

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

Overloading1 obj = **new** Overloading1();

obj.method1(10, "divya", 10);

System.***out***.println("Called method1 based on arguments");

obj.method1("divya", 20);

System.***out***.println("Called method2 based on arguments");

}

}

**Method Overriding:**

**package** concepts;

**public** **class** Overriding1 {

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

System.***out***.println("This is Super Class");

}

}

**package** concepts;

**public** **class** Overriding2 **extends** Overriding1{

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

System.***out***.println("This is Sub Class");

}

}

**package** concepts;

**public** **class** Overriding3 {

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

Overriding1 obj1 = **new** Overriding1();

obj1.method();

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

Overriding2 obj2 = **new** Overriding2();

obj2.method();

}

}

**Inheritance:**

**package** concepts;

**public** **class** ParentClass {

**static** **int** *a* = 10;

**static** **int** *b* = 20;

}

**package** concepts;

**public** **class** ChildClass **extends** ParentClass{

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

**int** c = *a*+*b*;

System.***out***.println("Value of c is " + c);

}

}

**Exceptions:**

**package** concepts;

**public** **class** Exceptions {

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

**try** {

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

System.***out***.println("Access element three :" + a[3]);

}

**catch**(ArrayIndexOutOfBoundsException e) {

System.***out***.println("Exception1: " + "Out of bound");

}

**try**{

**int** a = 10, b = 0;

**int** c = a / b;

System.***out***.println ("Result= " + c);

}

**catch**(ArithmeticException e){

System.***out***.println ("Exception2: " + "Arithmetic Exception");

}

}

}