**import** java.util.Comparator;

**public** **class** ComparatorAndComparable **implements** Comparable<ComparatorAndComparable>,Comparator<ComparatorAndComparable> {

**private** String name;

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

**static**{//static initializer block

System.***out***.println("ComparatorAndComparable class loaded..");

}

{//instance block-executes when instantiated

System.***out***.println("ComparatorAndComparable class instantiated");

}//its called time as two instance are created

**public** ComparatorAndComparable(){

}

**public** ComparatorAndComparable(String name,**int** age)

{

**this**.name=name;

**this**.age=age;

}

@Override

**public** String toString() {

// we provided our statement

**return** "Name:"+name+"\tAge:"+age;

}

@Override

//this method is called by p1 and object passed is p2, p1 here refers to this

**public** **boolean** equals(Object obj) {

**if**(obj **instanceof** ComparatorAndComparable){

ComparatorAndComparable p=(ComparatorAndComparable)obj;

//here age is this.age by default

**if**(p.name.equals(**this**.name)&& age==p.age)

**return** **true**;

}

**return** **false**;

}

**public** **int** getAge() {

**return** age;

}

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

ComparatorAndComparable p1=**new** ComparatorAndComparable("Mack", 21);

ComparatorAndComparable p2=**new** ComparatorAndComparable("Mack", 21);

System.***out***.println(p1.hashCode());

System.***out***.println(p2.hashCode());

System.***out***.println(p1);//implicitly calls toString

System.***out***.println(p2.toString());

System.***out***.println(p1.equals(p2));

}

@Override

**public** **int** compareTo(ComparatorAndComparable p) {

**return** name.compareTo(p.name);

}

@Override

**public** **int** compare(ComparatorAndComparable p1,ComparatorAndComparable p2){

**return** p1.getAge()-p2.getAge();

}

}