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//Program to demonstrate List collection for user defined
objects and
//sort elements using comparable and comparator
package com.tnsif.collection.comparable_comparator;
```

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.Comparator;
import java.util.List;
```

```
public class ListDemo {
```

```
    public static void main(String[] args) {
        // Adding User Defined objects into ArrayList
        List<Student> studentList = new ArrayList<Student>();
        Student s1 = new Student(11, "Pooja", 78);
        studentList.add(s1);
        s1 = new Student(21, "Nikita", 85);
        studentList.add(s1);
        s1 = new Student(13, "Deepa", 68);
        studentList.add(s1);
        s1 = new Student(41, "Neha", 72);
        studentList.add(s1);
        System.out.println("Students Details are as follows\n" +
studentList);
```

```
        System.out.println("-----Student Details Before
Sorting-----");
        System.out.println(studentList);
```

```
        // Using Comparable interface
        Collections.sort(studentList);
```

```
        System.out.println("-----Student Details After
Sorting-----");
```

```

System.out.println(studentList);

// Adding Person objects into ArrayList
List<Person> personList = new ArrayList<Person>();
Person p1 = new Person("Abhijit", "Mumbai");
personList.add(p1);

p1 = new Person("Milind", "Pune");
personList.add(p1);

p1 = new Person("Saurav", "Bangalore");
personList.add(p1);

p1 = new Person("Madhur", "Delhi");
personList.add(p1);

System.out.println("Person list is as follows\n" +
personList);

// Using Comparator interface
System.out.println("-----Person Details Before
Sorting-----");
System.out.println(personList);

Comparator<Person> pComp=new SortByName();
Collections.sort(personList,pComp );
System.out.println("-----Person Details After Sorting
by Name -----");
System.out.println(personList);

pComp=new SortByCity();
Collections.sort(personList, pComp);
System.out.println("-----Person Details After Sorting
by City -----");
System.out.println(personList);

```

}

}