

Comparable Assignments

Mandatory

1. WAP to sort the elements of List that contains String objects. Print ArrayList. Sort using Collections.sort(list) method. Print ArrayList.
2. WAP to sort the elements of List that contains Integer objects. Print ArrayList. Sort using Collections.sort(list) method. Print ArrayList.
Note: In the above 2 assignments, sorting is achieved automatically as String as well as Wrapper class Integer implements Comparable interface method compareTo.
3. WAP to create a class Employee with (name, designation and age). Now create and add Employee objects elements to ArrayList. Print ArrayList.
4. Now modify Employee class so that it implements Comparable interface's compareTo method. Sorting should be done based on id in which use < , > & == technique.
5. Now do sorting on id but based on inbuilt compareTo method. Ensure to check 3 null conditions
6. Now do descending sort of Employee.id in Employee arraylist using < , > & == technique.
7. Now do descending sort of Employee.id in Employee arraylist using inbuilt compareTo technique.
8. Create and add 4 more Employee objects in ArrayList. Print ArrayList. Sort ArrayList using Collections.sort(list) based on name. If name are same then sort on id. Print arraylist.
9. Add Profile(state,country) object in Employee object. Do sorting of employees on the country basis.

Comparator Assignments

Mandatory

10. WAP to create a class Student with (rollNo, name and age). Create 3 Comparator implementations for each Student attribute (i.e. rollNo, name and age)
11. Create and add 4 Student objects in ArrayList. Print ArrayList.
12. Sort the list using rollno comparator. Print ArrayList.
13. Sort the list using name comparator. Print ArrayList.
14. Sort the list using age comparator. Print ArrayList.
15. Observe the sorted outputs in case the name, age and name + age are same.

General ArrayList:

16. Does ArrayList allow Null values
17. What is the difference between ArrayList clear() and removeAll() methods ?
18. What is the difference between ArrayList's overloaded remove() methods ?
19. If an ArrayList contains duplicate objects and remove() method is invoked on the same object, will it remove the duplicates?
20. How to reverse an ArrayList in Java?
21. How to prove ArrayList increases its internal space, prove by showing Java code?