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| **Problem Statement:**  You have to implement the concept of **Comparator** in Java. The final task is to display the details of all students sorting by there age and sorting by there name  You are given a class *Student* having private variables roll\_no, *name* and *age*. You’ve been provided with a starter code which contains sub-tasks as defined below:  **Sub task 1:** Create a parameterized constructor accepting parameters *roll\_no*, *name* and *age*.  **Sub task 2:** You are given another class AgeComparator and NameComparator write your logic accordingly. In AgeComparator you need to sort according to the age of people in ascending order. In NameComparator you need to sort according to the Name of people in alphabetical order  **Sub task 3:** Create an array of *Student* objects.(use ArrayList)  **Sub task 4:** Initialize *student* objects.  **Sub task 5:** Display the *roll\_no,* *name* and *age* of students sorted by AgeComparator(Implement your sorting logic for AgeComparator class)  **Sub task 6:** Display the *roll\_no,* *name* and *age* of students sorted by NameComparator(Implement your sorting logic for NameComparator class).  **Note:**  1. Do not remove the predefined code else your code may not execute as expected.  2. You’ve to solve the problem using **Encapsulation** ONLY. Solving through any alternate method other than the Encapsulation may lead to disqualification. |
| **Input & Output Format:**  **Input Format**  The first line of input contains a single integer **N** denoting the number of objects.  The subsequent **N** lines contain an integer denoting roll*\_no.*  The subsequent **N** lines contain a string denoting *name.*  The subsequent **N** lines contain a string denoting *age.*  **Output Format**  Output the details of all the students having rollno ,name, age |
| **Sample Input & Output :**  **Sample Input 1**  3  12  34  45  Rohan  Farhan  Misha  56  45  34  **Sample Output 1**  Sorting by Name  34 Farhan 45  45 Misha 34  12 Rohan 56  Sorting by Age  45 Misha 34  34 Farhan 45  12 Rohan 56 |
| **Test Case 1 :**  **Input :**  **2**  **11**  **31**  **Rohan**  **Misha**  **23**  **32**  **Output :**  **Sorting by Name**  **31 Misha 32**  **11 Rohan 23**  **Sorting by Age**  **11 Rohan 23**  **31 Misha 32** |
| **Test Case 2 :**  **Input :**  **4**  **12**  **56**  **22**  **82**  **Rohan**  **wert**  **Sarthak**  **Abcnv**  **32**  **45**  **34**  **21**  **Output :**  **Sorting by Name**  **82 Abcnv 21**  **12 Rohan 32**  **22 Sarthak 34**  **56 wert 45**  **Sorting by Age**  **82 Abcnv 21**  **12 Rohan 32**  **22 Sarthak 34**  **56 wert 45** |