Assignment #24

Customer Table Booking - Requirement 4

In this requirement, you need to sort the list of customers by name, amount or rating using Comparable and Comparator interfaces.

1. Create a Customer Class with the following private attributes:

Member Field Name	Type
id	Long
name	String
mobileNumber	String
birthdate	java.util.Date
averageSpendAmount	Double
totalAmount	Double
dateEnrolled	java.util.Date
rating	Double

Mark all the attributes as private, Create / Generate appropriate Getters & Setters, Add a default constructor and a parameterized constructor to take in all attributes in the given order: **Customer(Long id, String name, StringmobileNumber, java.util.Date birthdate, Double averageSpendAmount, Double totalAmount, java.util.Date dateEnrolled, Double rating)**

2. The Customer class should implement the Comparableinterface which sorts the customer list based on names.
3. Write a Comparator class namedAmountComparator implementing Comparator Interface. This comparator should sort the customers based on the averageSpendAmount.
4. Write a Comparator class namedRatingComparator implementing Comparator Interface. This comparator should sort the customers based on their rating

5. The input format consists of customer details separated by comma in the below order,
   (id, name, mobileNumber, birthdate, averageSpendAmount, totalAmount, dateEnrolled, rating)

- Note: If any other option is selected display "Invalid choice".
- Assume that name,amount spent and rating will be always unique.

6. When the “customer” object is printed, it should display the following format

Print format:
System.out.format("%-5s %-15s %-15s %-15s %-20s %-15s %-15s %s\n", "Id","Name","Mobile

Number","Date of Birth","Average spent amount","Total amount","Date Enrolled","Rating");

Sample INPUT & OUTPUT 1:

Enter the number of customers:
3
222,John,9876543210,12-12-1990,4000,12000.5,12-12-2017,3.5
111,Mark,9632587410,13-01-1992,3000.0,8000,14-04-2014,4
333,Anil,9874563012,19-09-2015,6000.0,5000,16-09-2016,3.75
Enter a type to sort:
1.Name
2.Amount Spent
3.Rating
1

Id	Name	Mobile Number	Date of Birth	Average spent amount	Total amount	Date Enrolled	Rating
333	Anil	9874563012	19-09-2015	6000.0	5000.0	16-09-2016	3.75
222	John	9876543210	12-12-1990	4000.0	12000.5	12-12-2017	3.5
111	Mark	9632587410	13-01-1992	3000.0	8000.0	14-04-2014	4.0

Sample INPUT & OUTPUT 2:

Enter the number of customers:
3
222,John,9876543210,12-12-1990,4000,12000.5,12-12-2017,3.5
111,Mark,9632587410,13-01-1992,3000.0,8000,14-04-2014,4
333,Anil,9874563012,19-09-2015,6000.0,5000,16-09-2016,3.75
Enter a type to sort:
1.Name
2.Amount Spent
3.Rating
2

Id	Name	Mobile Number	Date of Birth	Average spent amount	Total amount	Date Enrolled	Rating
111	Mark	9632587410	13-01-1992	3000.0	8000.0	14-04-2014	4.0
222	John	9876543210	12-12-1990	4000.0	12000.5	12-12-2017	3.5
333	Anil	9874563012	19-09-2015	6000.0	5000.0	16-09-2016	3.75

Sample INPUT & OUTPUT 3:

Enter the number of customers:
3

222,John,9876543210,12-12-1990,4000,12000.5,12-12-2017,3.5
111,Mark,9632587410,13-01-1992,3000.0,8000,14-04-2014,4
333,Anil,9874563012,19-09-2015,6000.0,5000,16-09-2016,3.75
Enter a type to sort:
1.Name
2.Amount Spent
3.Rating
3

Id	Name	Mobile Number	Date of Birth	Average spent amount	Total amount	Date Enrolled	Rating
222	John	9876543210	12-12-1990	4000.0	12000.5	12-12-2017	3.5
333	Anil	9874563012	19-09-2015	6000.0	5000.0	16-09-2016	3.75
111	Mark	9632587410	13-01-1992	3000.0	8000.0	14-04-2014	4.0

Sample INPUT & OUTPUT 4:

Enter the number of customers:
3
222,John,9876543210,12-12-1990,4000,12000.5,12-12-2017,3.5
111,Mark,9632587410,13-01-1992,3000.0,8000,14-04-2014,4
333,Anil,9874563012,19-09-2015,6000.0,5000,16-09-2016,3.75
Enter a type to sort:
1.Name
2.Amount Spent
3.Rating
4
Invalid choice