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**Car-Service Management System - Requirement 5**

**Requirement 5:**

a) Create a Customer Class with the following attributes:

|  |  |
| --- | --- |
| **Member Field Name** | **Type** |
| customerId | Long |
| firstName | String |
| lastName | String |
| gender | String |
| email | String |
| phoneNumber | String |
| address | String |

b) Mark all the attributes as private

c) Create / Generate appropriate Getters & Setters

d) Add a default constructor and a parameterized constructor to take in all attributes in the given order: Customer(Long customerId, String firstName, String lastName, String gender, String email, String phoneNumber, String address)

e) A valid email has an @ and ends with “.com / .org”.

Create a method validateEmail in customer class with return type as void and check for valid email . During the parse, if an email id is invalid, Raise the custom exception(InvalidEmailException) and dont add the customer into the list. Print messege "Invalid Email for the user" for the exception.

f) Write a Comparator class named CustomerComparator implementing Comparator Interface. This comparator should sort the customers based on firstname.   
After reading all the inputs, Apply the comparator on the inputlist read and display the result.  
  
The output format should be System.out.format("%-5s %-15s %-15s %-15s %-15s %s\n","Id","First Name","Last Name","Gender","Email","Phone");  
  
**Sample Input and Output:**

Enter customer details:  
**1,Vel,Murugan,Male,**[**vel@mail.com**](mailto:vel@mail.com)**,9876543210,Coimbatore**  
Do you want to continue?  
**yes**  
Enter customer details:  
**2,Mani,Gandan,male,**[**mani@mail.org**](mailto:mani@mail.org)**,9873216540,CBE**  
Do you want to continue?  
**yes**  
Enter customer details:  
**3,Thana,Rathanam,male,**[**thana@mail.in**](mailto:thana@mail.in)**,9783210456,Karur**  
InvalidEmailException: Invalid Email for the user  
Do you want to continue?  
**yes**  
Enter customer details:  
**4,Karthi,Keyan,male,**[**keyan@mail.edu**](mailto:keyan@mail.edu)**,9632587410,Tirupur**  
InvalidEmailException: Invalid Email for the user  
Do you want to continue?  
**yes**  
Enter customer details:  
**5,Soori,yaa,male,**[**yaa@yaa.co.in**](mailto:yaa@yaa.co.in)**,9875321460,Chennnai**  
InvalidEmailException: Invalid Email for the user  
Do you want to continue?  
**no**  
Id    First Name      Last Name       Gender          Email                           Phone  
2      Mani                    Gandan              male               [mani@mail.org](mailto:mani@mail.org)     9873216540  
1      Vel                         Murugan            Male               [vel@mail.com](mailto:vel@mail.com)        9876543210