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| **Problem Statement:**  You are expected to create a List,T which contains Set has one of its properties. Use forEach loop to print the set of data and the iterator to display the List. Create a List,L <T> where T represents the Customer type. Let every T contain a Set,S<U>, where U denotes Product.  For this problem you have to perform the following tasks:  **SubTask 1**: Create a ***generic class*** as ***Product*** with product\_id, name and price as its properties.  **SubTask2**: Create a ***generic class*** as ***Customer*** with cust\_id, name,phone\_no and *Set of Product* as its properties  **SubTask3**: Create a List, ***L*** of type ***Customer***.  **SubTask4:** Populate your collection ***L*** with ***N*** number of customers i.e. (an array of customer objects)  **SubTask5**: Create a method to add customer.  **SubTask6: D**isplay the list of customers id and the set of Products added by each customer using iterator and forEach Loop.  **Note:**  1. Do not remove the predefined code else your code may not execute as expected.  2. You’ve to solve the problem using **generic class, List,**  **foreach loop and an iterator**. Skipping the concept may lead to disqualification. |
| **Input & Output Format:**  **Input Format**  The first line of input contains a single integer **N** denoting the number of customers.  The subsequent **N** lines contain an integer denoting cust*\_id.*  The subsequent **N** lines contain a string denoting *name.*  The subsequent **N** lines contain a String denoting *phone.*  The subsequent **N** lines contain a integer **M** denoting number of products*.*  The subsequent **M** lines contain an integer denoting product*\_id.*  The subsequent **M** lines contain a string denoting *name.*  The subsequent **M** lines contain a double denoting *price.*  **Output Format**  Display the list of customers id and the set of Products added by each customer. |
| **Sample Input :**  **3**  **1**  **2**  **3**  **Albert**  **John**  **David**  **9988776655**  **8877665544**  **7766554433**  **2**  **101 Charger 200.00**  **105 Adapter 100.00**  **3**  **101 Charger 200.00**  **103 Mousepad 100.00**  **105 Adapter 200.00**  **1**  **108 Mouse 300.00**  **Sample Output:**  **Cust\_id:1[101,105]**  **Cust\_id:2[101,103,105]**  **Cust\_id:3[108]** |
| **Test Case 1 :**  3  101  201  300  Rafel  Joseph  Daniel  9988776655  8877665544  7766554433  1  101 Charger 200.00  2  103 Mousepad 100.00  105 Adapter 200.00  2  105 Adapter 100.00  108 Mouse 300.00  **Cust\_id:101[101]**  **Cust\_id:201[103,105]**  **Cust\_id:300[105,108]**  **Test Case 2:**  2  11  22  Mishi  Juki  9988776655  8877665544  1  101 Charger 200.00  1  103 Mousepad 100.00  **Cust\_id:11[101]**  **Cust\_id:22[103]**  **Test Case 3 :**  1  10901  Ruah  9087654352  1  101 Charger 200.00  **Cust\_id:10901[101]**  **Test Case 4 :**  **2**  **10**  **20**  **Sanu**  **Janu**  **9876598765**  **7766554433**  **2**  **103 Mousepad 100.00**  **105 Adapter 200.00**  **1**  **105 Adapter 100.00**  **Cust\_id:10[103,105]**  **Cust\_id:20[105]**  **Test Case 5 :**  **0**  **Cust\_id:0** |