**ArrayList Assignment 5**

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**Problem Statement**

A fashion E-commerce company keeps a track of all the orders using an **ArrayList** and a class Order. Implement class **Order** and retrieve and return the list of items present in all the orders. Implement the logic inside **getItems()** method. Consider true and false value given in input for cash on delivery option.

Test the functionalities using the **main()** method of the **Tester** class.

**Sample Input and Output**

|  |  |
| --- | --- |
| **Sample Input** | **Expected Output** |
| orders=[Order(101,itemNames=[Jeans, Shirt, Belt],true), Order(102,itemNames=[Tie,Shirt],true),Order(103,itemNames=[Tshirt,Socks,Tie],true) | [Jeans,Shirt,Belt,Tie,Shirt,Tshirt,Socks,Tie] |
| orders=[Order(311,itemNames=[Sportswear, Dumbbell],true), Order(102,itemNames=[, Jeans],true),Order(103,itemNames=[Smartwatch,Fitnessband,Joggers],true) | Sportswear,Dumbbell,Smartwatch,Fitnessband,Joggers] |

**Code:**

import java.util.\*;

class Order {

private int orderId;

private List<String> itemNames;

private boolean cashOnDelivery;

public Order(int orderId, List<String> itemNames, boolean cashOnDelivery) {

this.orderId = orderId;

this.itemNames = itemNames;

this.cashOnDelivery = cashOnDelivery;

}

public int getOrderId() {

return orderId;

}

public List<String> getItemNames() {

return itemNames;

}

public boolean isCashOnDelivery() {

return cashOnDelivery;

}

@Override

public String toString() {

return "Order Id: " + getOrderId() + ", Item names: " + getItemNames() + ", Cash on delivery: " + isCashOnDelivery();

}

}

class Expt5 {

public static List<String> getItems(List<Order> orders) {

List<String> items = new ArrayList<>();

for (Order order : orders) {

items.addAll(order.getItemNames());

}

return items;

}

public static void main(String[] args) {

List<Order> orders = new ArrayList<>();

List<String> items1 = new ArrayList<>();

items1.add("Jeans");

items1.add("Shirt");

items1.add("Belt");

orders.add(new Order(101, items1, true));

List<String> items2 = new ArrayList<>();

items2.add("Tie");

items2.add("Shirt");

orders.add(new Order(102, items2, true));

List<String> items3 = new ArrayList<>();

items3.add("Tshirt");

items3.add("Socks");

items3.add("Tie");

orders.add(new Order(103, items3, true));

List<String> items = getItems(orders);

System.out.println("List of Items:");

for (String item : items) {

System.out.println(item);

}

}

}