Homework #07

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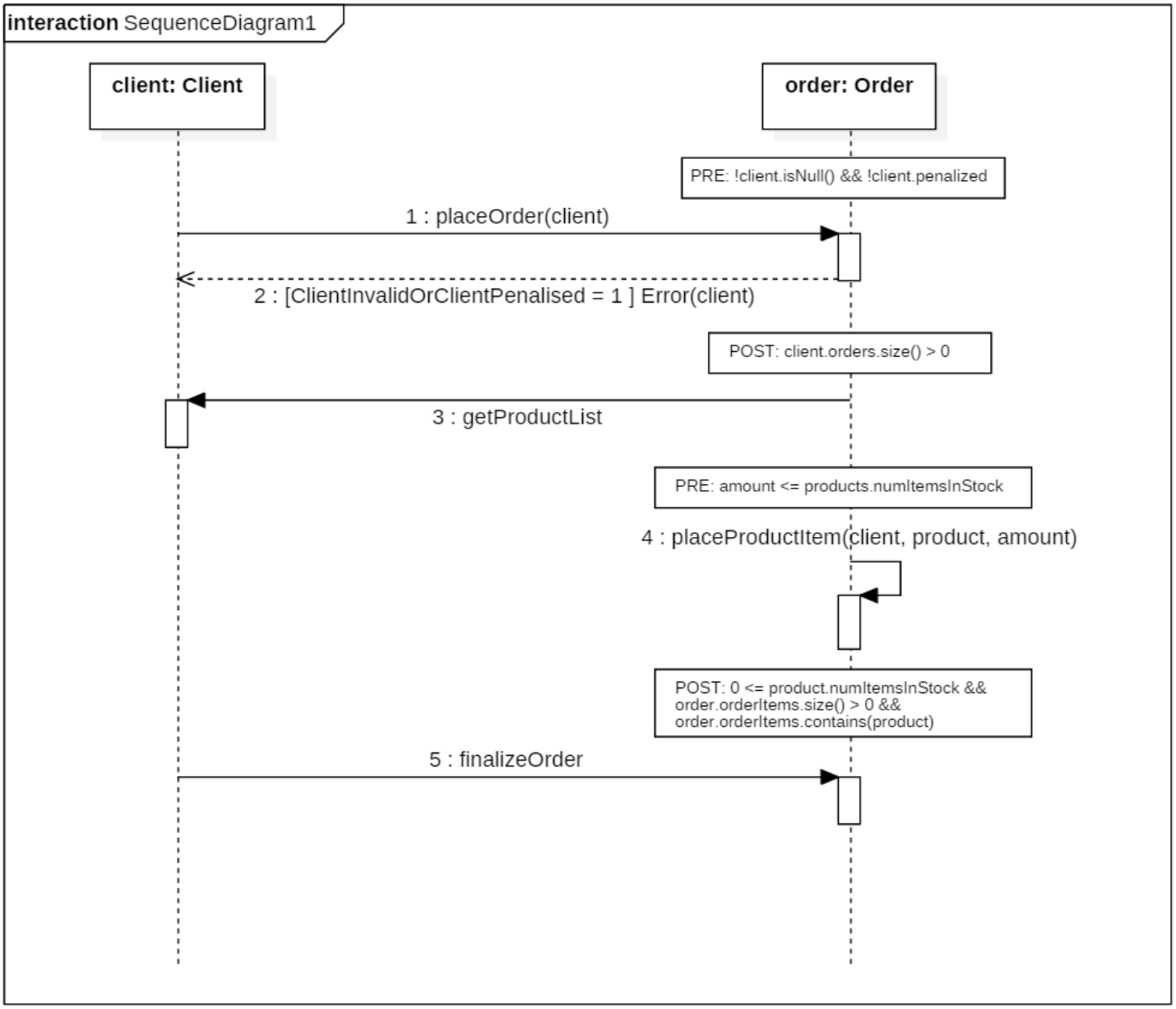
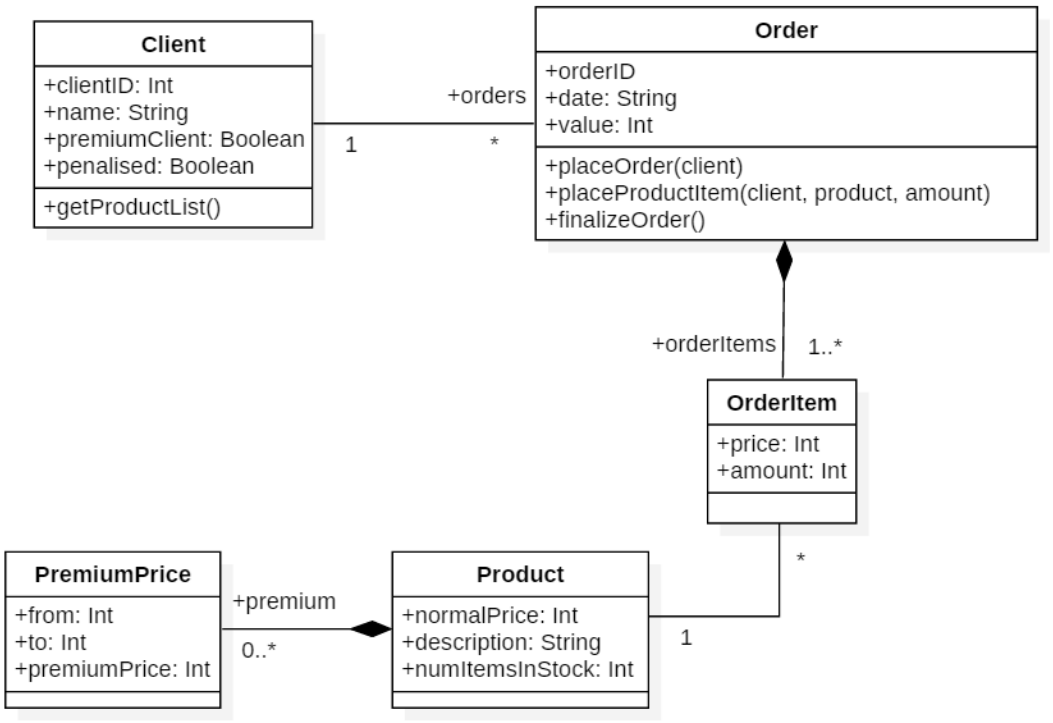
BS2-3

Question 1.



Question 2.



Question 3.

```
/**
 * @pre: a precondition to test if a client is registered and not penalized.
 * @post: a postcondition to test if client's order list contains this order.
 * @param client: a client to bind order to.
 */
public void placeOrder(Client client){
   assert client != null && !client.penalised; //pre

   client.orders.add(this);

   assert client.orders.size() > 0; //post
}

/**
 * @pre: a precondition to test if amount is in limits.
 * @post: a postcondition to test if client's order contains this product;
 * @param client: a client to bind order to.
 * @param product: a product to add to the order.
 * @param amount: an amount of products to add,
 */
public void placeProductItem(Client client, Product product, int amount){
   assert amount <= product.numItemsInStock; //pre

   int price = client.premiumClient && amount >= 2 ?
         product.premium.premiumPrice : product.normalPrice;

   OrderItem item = new OrderItem(product, amount, price * amount);
   this.orderItems.add(item);

   assert 0 <= product.numItemsInStock && orderItems.size()>0 && orderItems.contains(item); //post
}
```