

1. Online Java Inheritance, Interface:

In your home assignment you have modelled a retail shop. In your online you will model a wholesale shop. Wholesalers generally buy a large quantity of products at a time. Let's assume the properties of our wholesale shop are as follows.

- ❖ (Task 1) Amount of each buy operation should be greater than 1000 and multiple of 1000.
- ❖ (Task 2) Amount of each sell operation should be greater than 500 and multiple of 500.
- ❖ (Task 3) If for a sell operation there are not enough items in the inventory,
 - First check if have enough balance to buy the required items and enough space in the inventory to store them.
 - If so, then buy those items and the successfully perform the sell operation.
 - Otherwise show that you don't have enough amounts to sell.

Use the Shop interface and ShopItem class as mentioned in the [offline](#). An design the implement the scenario described above.

Sample main:

```
public static void main(String[] args) {  
    WholesaleShop wholesaleShop= new WholesaleShop(5000, 20000);  
  
    System.out.println(wholesaleShop.getBalance());  
    wholesaleShop.buy(1, 6000);  
    wholesaleShop.buy(1, 100);  
    wholesaleShop.buy(1, 1005);  
    wholesaleShop.buy(1, 2000);  
    System.out.println(wholesaleShop.getBalance());  
    wholesaleShop.sell(1, 1000);  
    System.out.println(wholesaleShop.getBalance());  
    wholesaleShop.buy(3, 3000);  
    System.out.println(wholesaleShop.getBalance());  
    wholesaleShop.sell(3, 15000);  
    wholesaleShop.sell(3, 4000);  
    System.out.println(wholesaleShop.getBalance());  
  
}
```

Sample Output:

```
20000.0  
Not enough space in inventory.
```

Invalid buy operation.
Invalid buy operation.
14000.0
19000.0
10000.0
Not enough amount in the inventory. Trying to buy required amount.
Not enough space in inventory.
Not enough Amount
Not enough amount in the inventory. Trying to buy required amount.
31000.0

Marks Distribution:

Task 1	5
Task 2	5
Task 3	5