Beans:

**public** **class** Item {

**private** **int** itemId;

**private** String name;

**private** **double** price;

//setter and getters

}

**public** **class** Order {

**private** **int** orderId;

**private** String mobile;

**private** **int** itemId;

**private** **int** quantity;

//setters and getters

}

Utility class

**public** **class** ItemRepositories {

**public** **static** Map<Integer,Item> *itemlist*=**new** HashMap<>();

**static** {

*itemlist*.put(12,**new** Item(12,"Pen",10000));

*itemlist*.put(13,**new** Item(13,"Laptop",40000));

*itemlist*.put(11,**new** Item(11,"Mobile",20000));

*itemlist*.put(14,**new** Item(14,"Computer",30000));

}

}

Dao

**public** **interface** ItemDao {

**public** Map<Integer,Item> getItems();

}

**public** **class** ItemDaoImpl **implements** ItemDao{

//implementations

}

Service:

**public** **interface** CustomerOrderService {

**boolean** addToCart(Order item);

List<Order> printOrderedItems();

**public** List<Item> getItems();

}

**public** **class** CustomerOrderServiceImpl **implements** CustomerOrderService {

// in additem to cart- order number should be increment automatically

//implement all methods

}

Write MainClient UI to access menu and place the order:

1. Register
2. .Exit

1

Enter name : XXX

Enter Mobile no: XXXXXXXXXXXX

XXXX Registered successfully

1.placing the order

2.display the cart

3.exit

1.placing the order

//display all items in Name sorted order

**14 Computer 30000**

**13 Laptop 40000**

**11 Mobile 20000**

**12 Pen 10000**

Enter item id : XXX

Enter Quantity:XXXX

Your order is placed you order Id is XXX

1. Placing the order

//display all items in Name sorted order

Enter item id : XXX

Enter Quantity:XXXX

Your order is placed you order Id is XXX

1. Display the cart

//example for 2 order placed means

your order id is: XXX ,Itemid: XXX, itemprice : XXX , Quantity: XXX Amout for this order is:XXXX

your order id is: XXX ,Itemid: XXX, itemprice : XXX , Quantity: XXX Amout for this order is:XXXX

Total bill amount : Rs.XXXXX

Write exception should raise when user placing order for invalid item number , exception message should be invalid item id.

Write the juit test case for Serviceimpl class and test it.

// If required add additional methods as needed give the explanation