



Course Code: CSE110

Course Title: Object-Oriented Programming

Section: 05

PROJECT REPORT
on
Inventory Management System

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Project Description

1. Project Explanation:

The inventory management system will contain a shop's all products, stock, supplier, and customer information. The application must have enough security. Because it may contain sensitive information about the shop. So any user who wants to use the application must log in first. The application should be able to add new products, remove any existing products, search a product, show all information, and also update the price, if the market price changes, and update the quantity, if any product is restocked to the inventory. It should also be able to make payment slips for the customers. They will be able to pay the amount through electronic payment also. After the payment is done, they will get their payment slip.

2. System Requirements:

Processor: Intel pentium / AMD athlon 600 or higher.

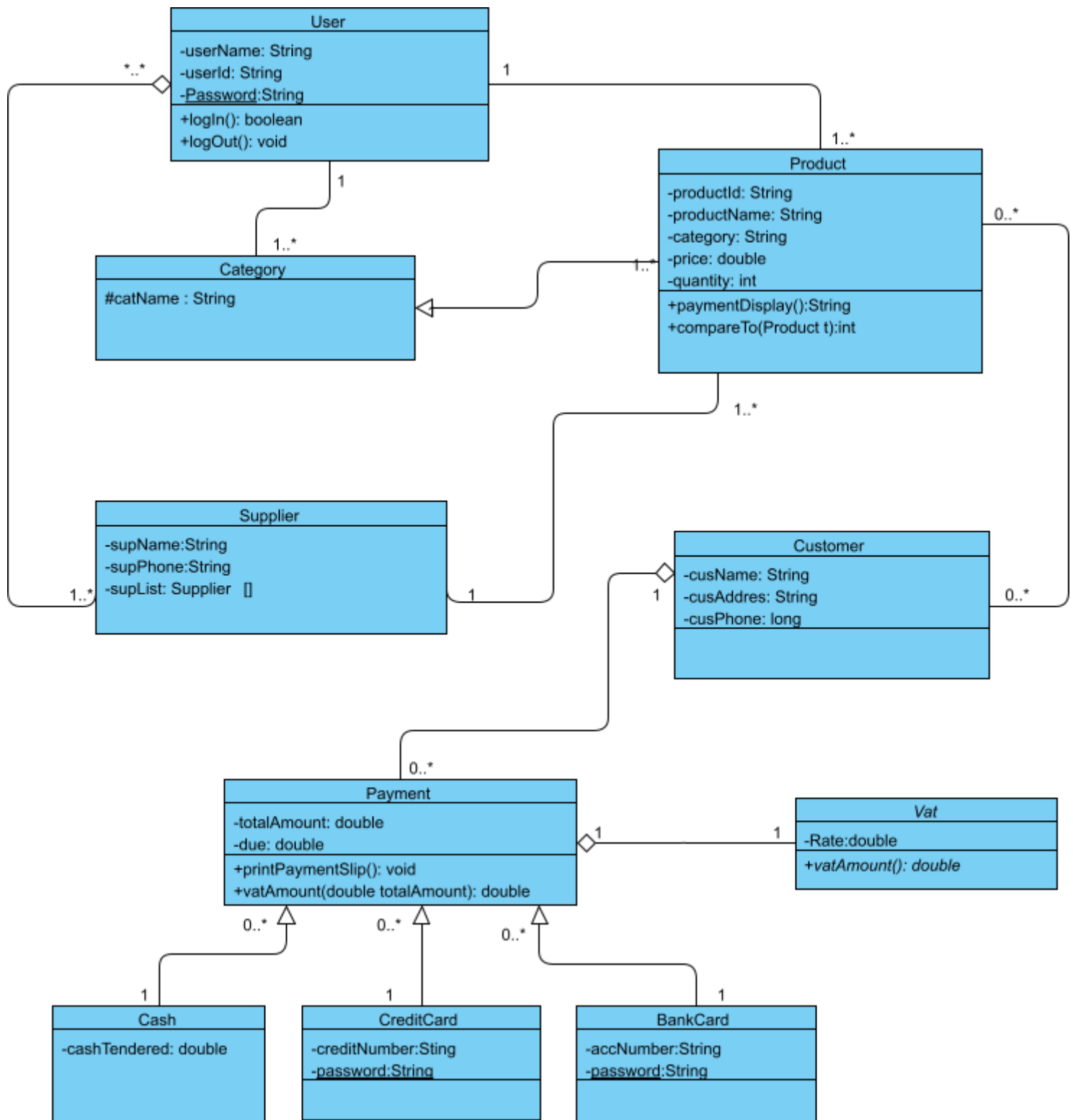
RAM: 128 MB or higher.

Disk space: 50 MB or higher.

Operating System: Windows 7/8/10.

IDE: Netbeans IDE 8.2 or higher.

3.UML class diagram:



4.All Features:

- I. **Security:** A password is needed to enter into the application.

```
Output - projectIMS (run)
run:
*****
----- INVENTORY MANAGEMENT SYSTEM -----
*****
----- Log in -----
Enter User ID : 123
Enter User name : Fatema
Enter PASSWORD : abcd

1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: |
```

- II. **Add:** Adding a new product and a supplier respectively.

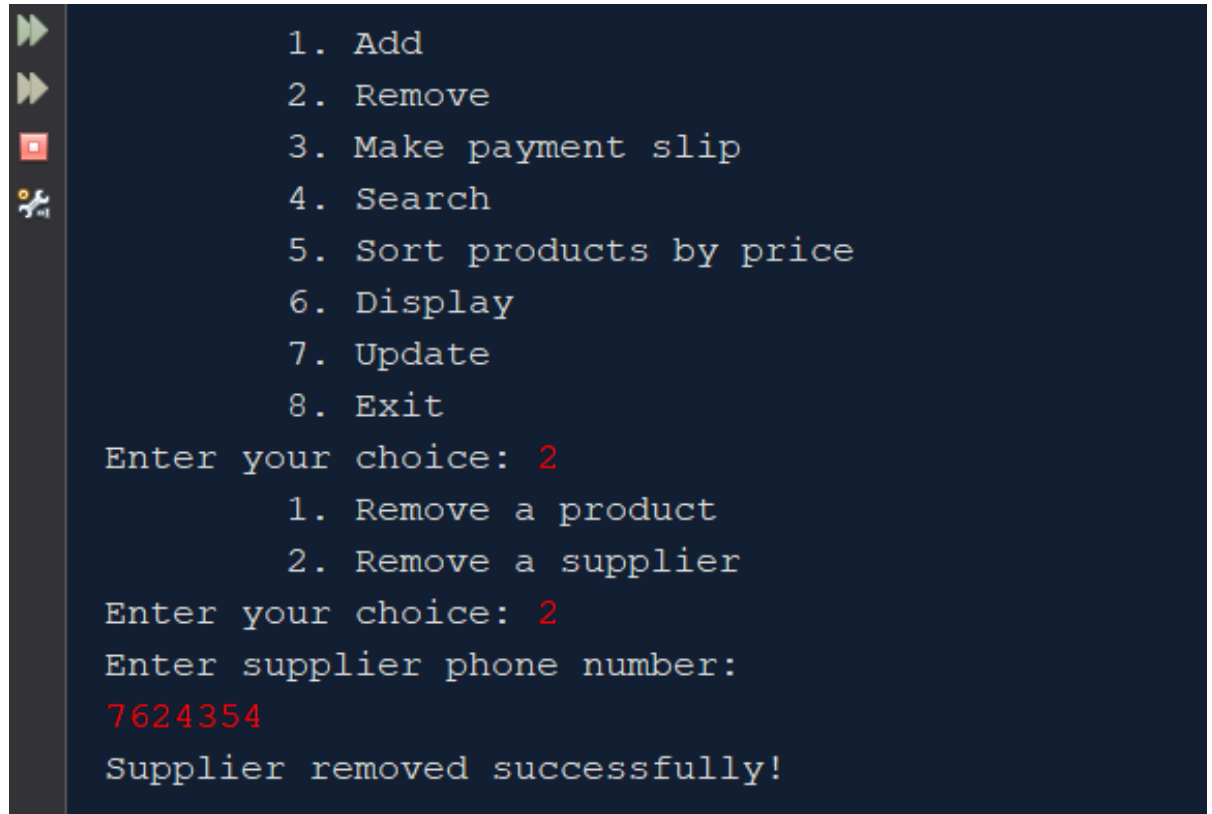
```
Projects
  Navigator
    1. Add
    2. Remove
    3. Make payment slip
    4. Search
    5. Sort products by price
    6. Display
    7. Update
    8. Exit
Enter your choice: 1
  1. Add a product
  2. Add a Supplier
Enter your choice: 1
Enter product Id: 1239
Enter Product Name: BSB
Enter category: fan
Enter price: 5000
Enter quantity of the product: 4
Product Added!!
```

```
Output - projectIMS (run)
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 1
1. Add a product
2. Add a Supplier
Enter your choice: 2
Enter supplier name: Faiza
Enter supplier phone number: 76543
Supplier Added!!
```

III. Remove: Removing a product from the list.

```
Output - projectIMS (run)
1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 2
1. Remove a product
2. Remove a supplier
Enter your choice: 1
Enter product Id: 1237
Product removed successfully!
```

Removing a supplier from the supplier list.



```
1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 2
    1. Remove a product
    2. Remove a supplier
Enter your choice: 2
Enter supplier phone number:
7624354
Supplier removed successfully!
```

IV. Make payment slip: Making a payment slip for the customers.

```
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 3
Enter customer name: Zuhra
Enter customer phone: 123490
Enter address: Badda
How many products: 3
Enter payment method
    1. Cash
    2. Credit Card
    3. Bank Card
Enter choice: 2
Enter Credit card number: 6987
Enter credit card password: abcd
Enter product Id: 1234
Enter product Id: 1235
```

```
How many products: 3
Enter payment method
    1. Cash
    2. Credit Card
    3. Bank Card
Enter choice: 2
Enter Credit card number: 6987
Enter credit card password: abcd
Enter product Id: 1234
Enter product Id: 1235
Enter product Id: 1236
Net payable: 69000.0
Enter paid amount: 73000

Customer{cusName='Zuhra', cusAddress='Badda', cusPhone=123490}
Product{productId='1234', productName='TV', Category='LED TV', Price=10000.0}
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0}
Product{productId='1236', productName='Gree', Category='AC', Price=30000.0}
Total amount without vat: 60000.0
Total amount with 15% vat: 69000.0
Change: 4000.0
```

V. Search: Searching for a product and a supplier respectively.

```
Output - projectIMS (run)
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 4
1. Search a product
2. Search a supplier
Enter a option: 1
Enter product id: 1235
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0, Quantity=3}
```

```
1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 4
1. Search a product
2. Search a supplier
Enter a option: 2
Enter supplier phone number: 123345
Supplier{supName=Nayem Ahmed, supPhone=123345}
```

VI. Sort: Sorting products by their price in ascending order.

```
1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 5
Product{productId='1237', productName='Walton', Category='Iron', Price=500.0, Quantity=5}
Product{productId='1234', productName='TV', Category='LED TV', Price=10000.0, Quantity=1}
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0, Quantity=3}
Product{productId='1236', productName='Gree', Category='AC', Price=30000.0, Quantity=5}
```


VII. Display: Displaying all the products and suppliers respectively.

```
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 6
1. Display all products
2. Display all suppliers
Enter your choice: 1
Product{productId='1237', productName='Walton', Category='Iron', Price=500.0, Quantity=5}
Product{productId='1234', productName='TV', Category='LED TV', Price=10000.0, Quantity=1}
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0, Quantity=3}
Product{productId='1236', productName='Gree', Category='AC', Price=30000.0, Quantity=5}
```

```
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 6
1. Display all products
2. Display all suppliers
Enter your choice: 2
Supplier{supName=Tamim, supPhone=01789}
Supplier{supName=Fatema, supPhone=01678}
Supplier{supName=Fahad, supPhone=01567}
Supplier{supName=Nurat jahan Fariha, supPhone=9876543}
Supplier{supName=Jannat Noushin, supPhone=123456}
Supplier{supName=Sadia Sara, supPhone=09875432}
Supplier{supName=Shakir Farhan, supPhone=7624354}
Supplier{supName=Yeamin Hasan, supPhone=098514}
Supplier{supName=Nayem Ahmed, supPhone=123345}
```

VIII. **Update:** Updating the price and quantity of a specific product respectively.

```
Output - projectIMS (run)
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 7
1. Update price.
2. Update quantity
Enter option: 1
Enter product ID: 1236
Enter updated price: 32300
Product{productId='1236', productName='Gree', Category='AC', Price=32300.0, Quantity=5}
Price updated successfully!
```

```
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 7
1. Update price.
2. Update quantity
Enter option: 2
Enter product id: 1235
Enter Updated quantity: 13
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0, Quantity=13}
Quantity updated successfully!
```

IX. **Message for restock:** The application will show a message if the quantity of a product becomes zero.

```
Output - projectIMS (run)
Enter payment method
1. Cash
2. Credit Card
3. Bank Card
Enter choice: 1
Enter product Id: 1234
Enter product Id: 1234
This product is no more available in the inventory, PLEASE RESTOCK!!
Enter product Id: 1235
Net payable: 34500.0
Enter paid amount: 35000

Customer{cusName='Tamim', cusAddress='Bhairab', cusPhone=1789}
Product{productId='1234', productName='TV', Category='LED TV', Price=10000.0}
Product{productId='1235', productName='LG', Category='Fridge', Price=20000.0}
Total amount without vat: 30000.0
Total amount with 15% vat: 34500.0
Change: 500.0
```

X. Exit: Exiting the application.

```
1. Add
2. Remove
3. Make payment slip
4. Search
5. Sort products by price
6. Display
7. Update
8. Exit
Enter your choice: 8
BUILD SUCCESSFUL (total time: 17 seconds)
```