Report

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Introduction:

This project aims to develop a user friendly and efficient system which can be helpful for Sales Assistant for Order processing, and managing his other task in Store.

The System will provide functionality like order processing, backorder placing, payment processing and many others.

Problem Statement:

Traditionally, Sales Assistant manually process order, check Stock availability, handle Payment which can be time consuming and prone to errors. These inefficiencies lead to delays in order processing, inaccuracies in stock management, and difficulties in monitoring sales performance.

Objectives:

- Develop a System that enables sales assistants to process orders efficiently by entering product numbers and quantities.
- Implement a system that displays product descriptions, prices, and available stock to assist sales assistants in providing accurate information to customers.
- Enable the collection of in-stock products from the store or offer delivery options to the customer's home address with appropriate charges.
- Allow the creation of backorders from a regional warehouse when products are out of stock in the store.
- Allow process backorders to directly customer's home address.
- Support cash and credit card payment options
- Enable Sales assistants to check Order and Backorders list.
- Enable sales assistants to check stock availability and pricing without creating an order and to progress orders for delivery.

Limitations:

- The Project will not cover database functionalities.
- The Project will not cover additional functionalities outside scope of objectives.
- The Project will not cover Hardware related aspects such as Online Transaction system, Payment terminals.
- The Project will not cover involvement of Customer during Sales assistant processing order.

Planning Phase:

During, the planning phase several activities are conducted for completion of Project. The activities help to ensure that Project is being constructed according to Software Development Life Cycle.

The key planning activities include:

1. Stake Holders Analysis:

To ensure the success of the project, it is essential to identify and engage with the relevant stakeholders. The key stakeholders for this project include sales assistants, customers, (Stock manager and Store manager).

➢ Sales assistants are the primary users of the System and will be responsible for processing orders, checking stock and pricing.

➢ Customers are end user of the System who will interact with Systems for placing order by approaching to Sales Assistant and make payments.

To effectively gather input and understand the needs of stakeholders, various techniques such as interviews, surveys, or meetings can be employed. This will help in identifying their roles, responsibilities, and expectations, ensuring their requirements are considered during the project's planning and execution.

(Store managers will oversee the overall operations and may require summary sales reports to calculate sales bonuses. Stock managers will monitor stock levels and require features for setting minimum stock levels and requisitioning products)

2. Project Timelines:

To ensure effective project management and completion, it is important to establish a clear timeline. The timeline provides a structure for the project and helps track progress.

- **Project Initiation Phase (2 hour):**

  Conduct stakeholder analysis and gather requirements through internet.

  Define project objectives and scope.

- **Requirements Gathering and Analysis (2 weeks):**

  Identify stakeholders on Internet to gather detailed requirements.

- **Design and Development Phase (2 days):**

  Design system architecture by using class diagram.

  Develop the System with the required functionalities, such as order processing, stock checking, pricing by Using JAVA OOP concepts and by using NetBeans.

  Create a comprehensive requirements document.

- **Testing and Quality Assurance (1 hour):**

  Identify and fix any bugs or issues.

  Perform user acceptance testing with sales assistants and customers.

  Conduct testing by entering wrong information into variables.

3. Risk management and assessment:

- **Technical Challenges:**

  Identify potential technical obstacles that may arise during the project, such as integration issues.

- **Resource Limitations:**

  Evaluate the availability and adequacy of resources required for the project, including personnel, IDE, GUI grip. Consider the risk that I failed to develop GUI.

- **External Dependencies:**

  Identify external factors like other subjects Quizes Or Final Term preparation.

4. Budgeting and Cost Estimation:

- **Development Costs:**
  Estimate the costs associated with software development.

- **Hardware/Software Expenses:**
  Determine the hardware and software requirements for the project like IDE.

- **Testing, Deployment, and Maintenance:**
- Include costs for testing activities, deployment processes, and ongoing maintenance and support.

Approval and Sign-off:

- **Project Plan Presentation:**

  Present a project plan to stakeholders, including defined objectives, scope, timelines, risks, and budget.

- **Stakeholder Review:**

  Seek feedback from relevant stakeholders, such as project sponsors, executives, and department heads. Address any concerns or questions they may have and incorporate their input into the plan, if applicable.

- **Sign-off Process:**

  Obtain formal approval and sign-off from the necessary stakeholders to proceed with the project. This ensures that all parties are aligned and committed to the project's objectives, scope, timelines, risks, and budget.

By effectively managing risks, accurately estimating costs, and obtaining stakeholder approval, you can enhance the chances of project success and minimize potential setbacks or obstacles.

Requirement Phase (Specifications):

User Requirements:

Sales Assistant Requirements:

- The sales assistant shall be able to enter Customer information.
- The sales assistant shall select product by its id.
- The sales assistant shall be able to enter quantities to process an order.
- The system shall display the description, price, and available stock of the products.
- In-stock products shall be available for immediate collection by the customer from the store.
- Customers shall have the option to select delivery to their home address, with a delivery charge applied.
- If a product is out of stock, the sales assistant shall be able to create a backorder from a regional warehouse.
- The system shall handle the delivery of products directly from the regional warehouse to the customer's home or to the store for collection.
- Cash and credit card payment options shall be available for customers.

Functional Requirements:

Order Processing:

- The system shall allow the sales assistant to add quantities of selected products for order processing.
- It shall display the name, price of the products.

Delivery Options:

- The system shall support delivery to the customer's home address for selected products, with a delivery charge.

Backorder Management:

- The system shall allow the sales assistant to create backorders for out-of-stock products from a regional warehouse.

Payment Options:

- The system shall provide options for cash and credit card payments.

Non- Functional Requirements:

Accuracy:

- The System shall calculate the bill accurately.

Usability:

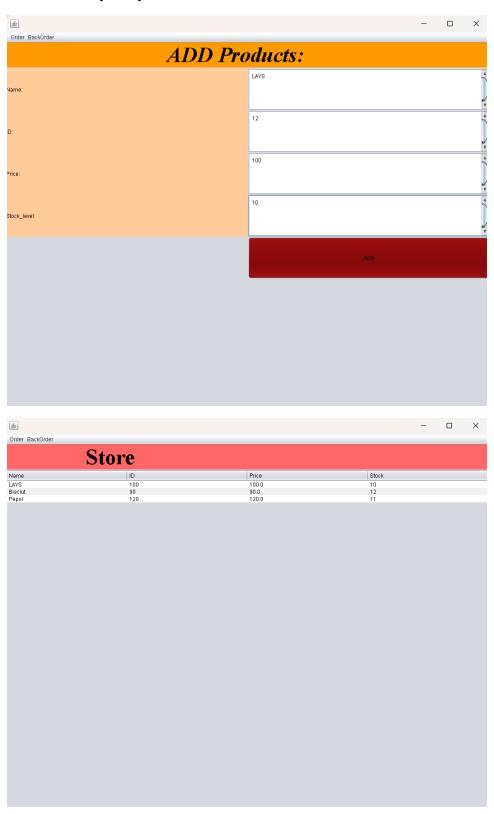- The system shall be easy to use for Sales Assistant.
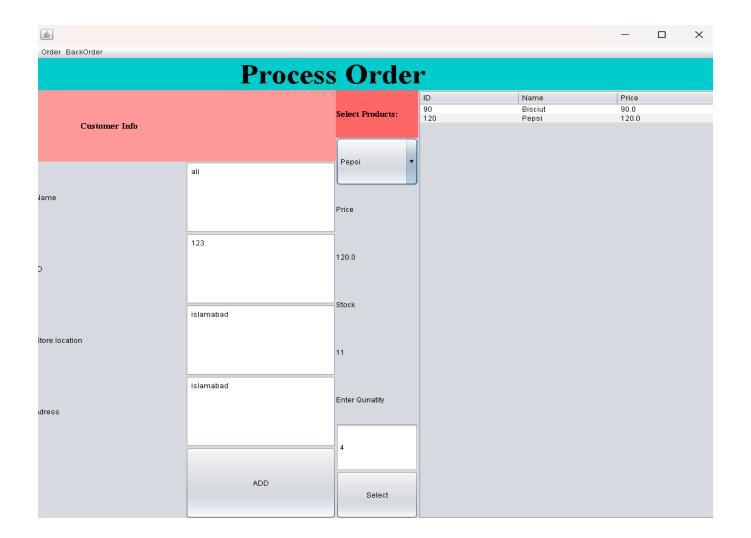
Designing Phase:

Interface Diagram:

```
------ WELCOME ------
Press 1 for Sales Assistant ...
Press 2 for Stock Manager ...
Press 3 for Store Manager ...
Press 4 to EXIt


------Sales Assistant Info-----
Enter Name
ali
Enter Id
12
Enter Store Location
Denmark
 **Sales Assistant Info Added **
_____ SELECT OPTION _____
Press 1 ---> Process Order
Press 2 ---> Create BackOrder
Press 3 ---> Check Stock
Press 4 ---> Check Order
Press 0 ---> To EXIT
```

Enter customer information :

Name :

hassan

ID :

12

Store Name Added:

Adress :

Rawalpindi

 ** Customer Info Added **

  ** Delivery Info Added **

 Enter payment method :

1 for cash 2 for card

1

Enter amount

500

Payment type = CASH

_____ BILL _____

Total Amount --> 200.0

Backorder Amount --->0.0

Amount Paid500.0

Remaining300.0

====< Order Placed >====
Order status completed
Enter delivery status:
completed
Order{number=1, c=Customer{ name=hassan id=12 Store=Denmark adress=Rawalpindi, py=null}
lays
100.0
2
 --- Order ADDED in List ---

Front End (GUI):

Implementation:

Coding:

Zip File Attached in Same Folder.

Testing

Validation And Verification:

- Validate accurate entry of product numbers and quantities.
- Verify correct display of product information (price, name).
- Validate creation of backorders and successful delivery process.
- Verify accurate processing of cash and credit card payments.
- Validate accurate stock and pricing checks without creating an order.

String and Integer Validation:

- Test the system's response to invalid or unexpected input in the product numbers, quantities, and payment fields.
- Verified that appropriate error messages or notifications are displayed for invalid input.

Test cases for various functionalities:

- **Order Processing:**
  - Validate that the sales assistant can enter product numbers and required quantities into the system.
  - Verify that the system displays the correct name and price for the entered products.
  - Test the ability to create a backorder for a product from a regional warehouse if stock is not available.
  - Validate the system's capability to deliver products from the regional warehouse to the customer's home address or the store for collection.
- **Payment and Transaction:**
  - Test the functionality to pay for products by cash or credit and verify that the payment is processed correctly.
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  - Verify that the system generates a receipt for each transaction.