

Project Report (Database System I)

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Executive summary:

The primary goal of this project is to design, build and implement a sales and storage management system. The system simplifies the operation flow of the business, to reduce unnecessary steps in using the system by integrating different compatible modules into a compact one.

The system is using SQL as the database system. And for making the front end of the database we used netbeans(java). Thus, several advanced features that are offered by the software are also being implemented into the new system.

All of the basic data are being registered in the system. From customer to supplier data. Along with transaction inputs, the new system can produce useful reports for the manager to view and make the decision accordingly. Plus, in the end, the system store all the records of the tranctions that occured. Futher, the program consists of a login page. So, only officails can operate the system. You can also add, delete and update the data about the employee and give them login access if you want.

1) Introduction:

A database management system (DBMS) is a software tool that enables users to manage a database easily. It allows users to access and interact with the underlying data in the database. These actions can range from simply querying data to defining database schemas that fundamentally affect the database structure.

Stores are required for the following purposes :-

1. Order management
2. Tracking and managing inventory
3. Reporting and analysis

The 'Stores Management System' is targeted to automate the almost all of the processes mentioned above to reduce the labor of the staff working in Stores both technical and as well as Accounts departments using the software Industry's latest technologies and cost effective tools there by providing the better control to the management by avoiding manual errors etc..

1.1) Auto Store Management System :

The system creates a system based managements program that enables a Store to schedule its inventory based on the daily update of sales from its supplier. Once the figures of items are entered by the employee the system will run until it runs out of stock and then it will give you the error "out of stock". The system will provide you with the same error until you restock the items in it. A report of the each transaction will be prepared which can be view any time by the manager.

The Benefits of the Stores Management System are

- Product Categorization
- Product Measurement
- Product History
- Cycle Counting
- Automatic Stock-Out Reports
- Collaborative Inventory
- Stock Inquiries

1.2) TOOLS:

Tools to design the management system are:

- Oracle for SQL(backend)
- Netbeans IDE 7.4 for JAVA(frontend)

1.3) Problems of the System:

i) Configuring authentication and authorization:

Easily configure user accounts, define access policies, modify restrictions, and access scopes. These operations allow administrators to limit access to underlying data, control user actions, and manage users in databases.

ii) Database related queries:

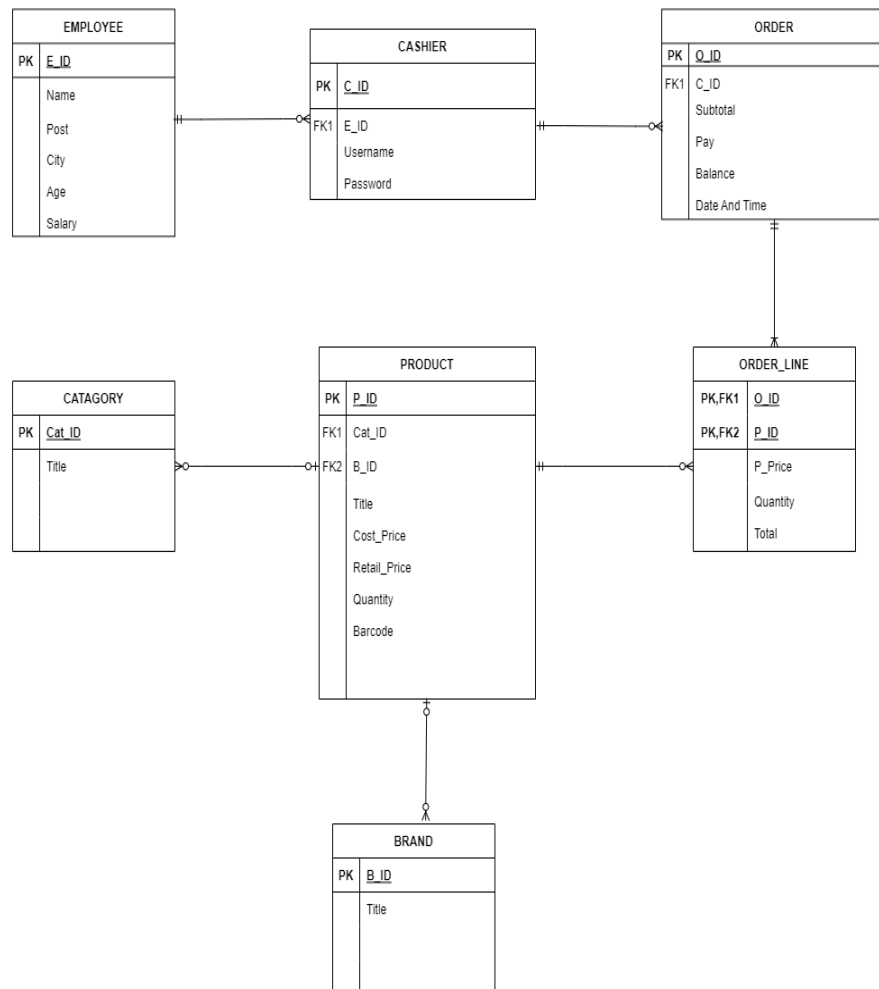
Database Queries consists of insert, update, delete, search etc. the system should handle all these queries in the best possible way so the system runs smoothly and efficiently.

2) Solution:

In the previous system we used **phpMyAdmin** and the database tables were not linked with each other. We also didn't store the employee information and couldn't connect the database with the front interface.

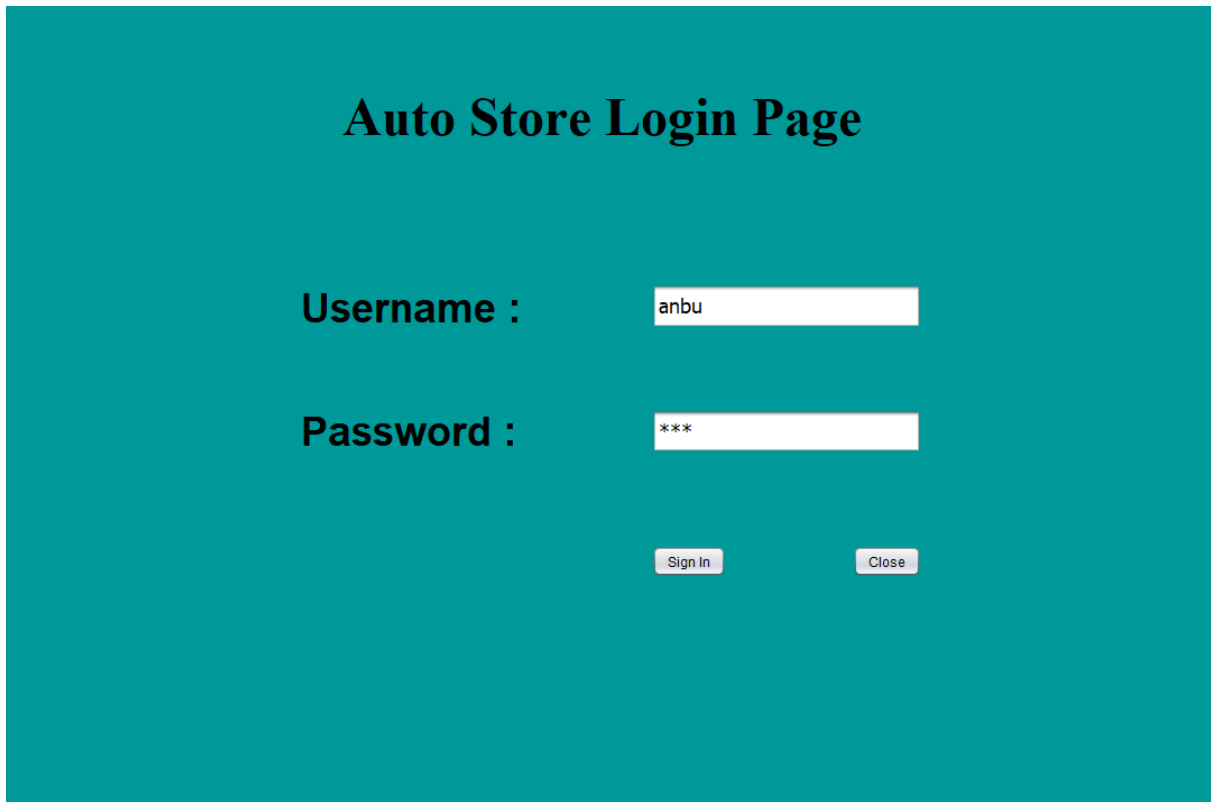
Then we shifted our system to oracle and connected each table using references. We also created a login page for the employee use and created a table to store all the necessary employee data. Then we connected the backend (database) with the main interface using Netbeans (java).

3) ERD Diagrams:



4) Screenshot of Working of Project

i) Login Panel:



The screenshot displays a login interface titled "Auto Store Login Page" in a large, bold, black serif font, centered at the top. Below the title, there are two input fields. The first is labeled "Username :" in a bold black serif font, followed by a white rectangular input box containing the text "anbu". The second is labeled "Password :" in a bold black serif font, followed by a white rectangular input box containing three asterisks "***". At the bottom of the form, there are two buttons: "Sign In" and "Close", both with a light gray gradient and rounded corners. The entire login panel is set against a solid teal background.

ii) Data Display

EMPLOYEE

PRODUCTS

LOGIN USER

ORDER

CATAGORY

BRAND

SALES RECORD

PRODUCT DATA PAGE

anbu

ID:

Catagory:

Title:

Brand:

Retail Price:

Quantity:

Cost Price:

Add

Edit

Delete

Barcode:

ID	TITLE	BARCODE	CATAGORY	BRAND	RETAIL PRICE	COST PRICE	QUANTITY
1	MOBILEOIL 70...	111	CD-70	HONDA GENI...	360	300	40
2	MOBILEOIL 70...	222	CD-70	HAVOLINE	400	350	24
3	FILTER O/M	333	CD-70	HONDA GENI...	110	80	50
4	FILTER N/M	444	CD-70	HONDA GENI...	150	110	40
5	METER BODY	555	CG-125	RITE	200	150	12
6	CHAIN KIT	666	CD-70	HONDA GENI...	1530	1400	20

iii) Data Insertion:

PRODUCT DATA PAGE anbu

ID:
Title:
Retail Price:
Cost Price:
Barcode:

Catagory:
Brand:
Quantity:

ID	TITLE	BARCODE	CATAGORY	BRAND	RETAIL PRICE	COST PRICE	QUANTITY
1	MOBILEOIL 70...	111	CD-70	HONDA GENI...	360	300	40
2	MOBILEOIL 70...	222	CD-70	HAVOLINE	400	350	24
3	FILTER O/M	333	CD-70	HONDA GENI...	110	80	50
4	FILTER N/M	444	CD-70	HONDA GENI...	150	110	40
5	METER BODY	555	CG-125	RITE	200	150	12
6	CHAIN			HONDA GENI...	1530	1400	20

Message

Product Added

iv) Data Deletion:

PRODUCT DATA PAGE anbu

ID:
Title:
Retail Price:
Cost Price:
Barcode:

Catagory:
Brand:
Quantity:

ID	TITLE	BARCODE	CATAGORY	BRAND	RETAIL PRICE	COST PRICE	QUANTITY
1	MOBILEOIL 70...	111	CD-70	HONDA GENI...	360	300	40
3	FILTER O/M	333	CD-70	HONDA GENI...	110	80	50
4	FILTER N/M	444	CD-70	HONDA GENI...	150	110	40
7	CHAIN KIT	777	CG-125	HONDA GENI...	2000	1800	22
5	METER BODY	555	CG-125	RITE	200	150	12
6	CHAIN KIT	666	CD-70	HONDA GENI...	1530	1400	20

Warning

Do you Want to delete Product ?

v) Order Transaction with print slip:

The screenshot shows a software window titled "ORDER DATA PAGE" with a sidebar on the left containing menu items: EMPLOYEE, PRODUCTS, LOGIN USER, ORDER, CATAGORY, BRAND, and SALES RECORD. The main area contains fields for PRODUCT CODE, PRICE, PRODUCT TITLE, and QUANTITY. Below these is a table with columns: PRODUCT CODE, TITLE, PRICE, QUANTITY, and TOTAL. The table contains three rows of data. A "Print" dialog box is open in the foreground, showing the "General" tab. It includes a "Print Service" section with a dropdown menu set to "OneNote for Windows 10" and a "Print Range" section with radio buttons for "All" (selected) and "Pages". The "Copies" section shows "Number of copies" set to 1. The "Print" button is visible at the bottom of the dialog box. In the background, the "ORDER DATA PAGE" window shows a "BALANCE" field with the value 1300.

PRODUCT CODE	TITLE	PRICE	QUANTITY	TOTAL
333	FILTER O/M	110	20	2200
444	FILTER N/M	150	10	1500
777	CHAIN KIT	2000	10	20000

The screenshot shows a "Purchase Print Form" window displaying a receipt. The receipt includes a header "***** SUPER MARKET *****", a table of products, a summary section with SUB TOTAL, PAY, and BALANCE, and a footer with CASHIER, DATE, TIME, and a thank you message. A "Message" dialog box is open in the foreground, displaying an information icon and the text "Sales Record Generated at Id : 12". The "OK" button is visible at the bottom of the dialog box. In the background, a "LOGIN USER" window is partially visible, showing a sidebar with menu items: LOGIN USER, ORDER, and CATAGORY.

Product	Price	Total
FILTER O/M	110	2200
FILTER N/M	150	1500
CHAIN KIT	2000	20000

SUB TOTAL : 23700
PAY : 25000
BALANCE : 1300

CASHIER : anbu
DATE : 21/01/2022
TIME : 06-45-29 AM

***** THANKS A LOT FOR YOUR COMING *****