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 manageing 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 trancation 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

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.
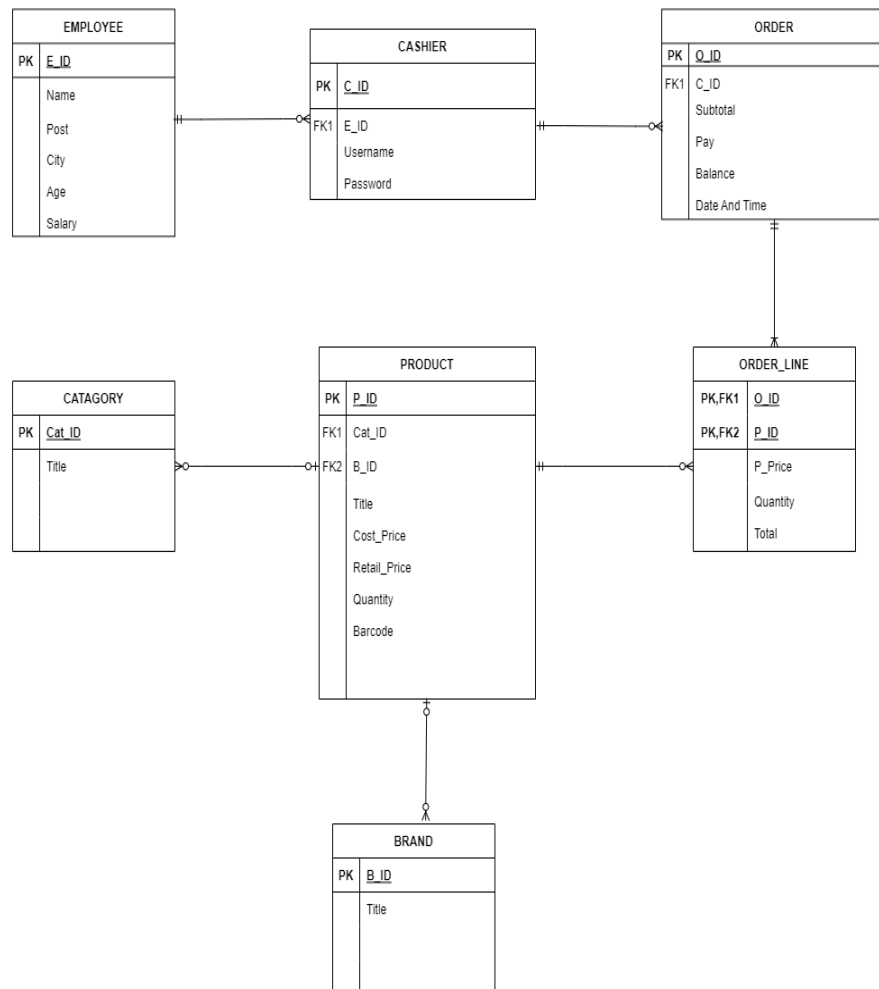
ii)   Database related queries:

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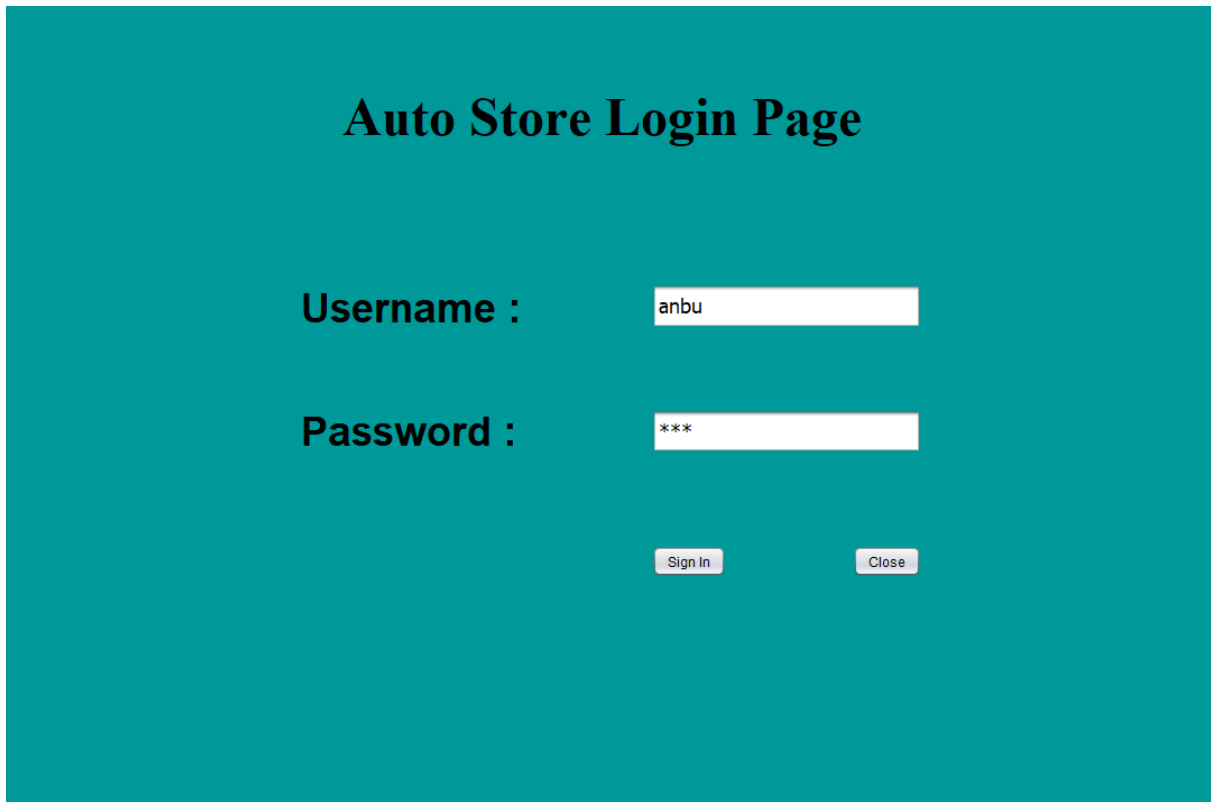
Then we shifted our system to oracle and connected each table using references. We also created a login page for the employee use and created a table to store all the necessary employee data. Then we connected the backend (database) with the main interface using Netbeans (java).

3) ERD Diagrams:

EMPLOYEE

PK	E_ID
	Name
	Post
	City
	Age
	Salary

CASHIER

PK	C_ID
FK1	E_ID
	Username
	Password

ORDER

PK	O_ID
FK1	C_ID
	Subtotal
	Pay
	Balance
	Date And Time

CATAGORY

PK	Cat_ID
	Title

PRODUCT

PK	P_ID
FK1	Cat_ID
FK2	B_ID
	Title
	Cost_Price
	Retail_Price
	Quantity
	Barcode

ORDER_LINE

PK,FK1	O_ID
PK,FK2	P_ID
	P_Price
	Quantity
	Total

BRAND

PK	B_ID
	Title

4) Screenshot of Working of Project

i) Login Panel:

ii)   Data Display

PRODUCT DATA PAGE   anbu

EMPLOYEE

PRODUCTS

LOGIN USER

ORDER

CATAGORY

BRAND

SALES RECORD

ID:

Title:

Retail Price:

Cost Price:

Barcode:

Catagory:

Brand:

Quantity:

Add   Edit   Delete

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 Insertoin:

iv)   Data Deletion:

v) Order Transaction with print slip: