Project Report on

Online Inventory Management System

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Thanks Our

Honorable Teacher

Shantonu Roy

Abstract

This project is aimed at developing an online Sales and Inventory Management System (SIMS) for a departmental store. This system can be used to store the details of the inventory, update the inventory based on the sale details, produce receipts for sales, generate sales and inventory reports periodically etc. This is one integrated system that contains both the user component (used by salespersons, sales managers, inventory managers etc) and the admin component (used by the administrators for performing admin level functions such as adding new items to the inventory, changing the price of an item etc).

This system runs on multiple terminals, offers a GUI interface to its users and connects to a common database(s).

1. Operational Concepts

The Inventory Management System is a real-time inventory database capable of connecting multiple stores. This can be used to track the inventory of a single store, or to manage the distribution of stock between several branches of a larger franchise. However, the system merely records sales and restocking data and provides notification of low stock at any location through email at a specified interval. The goal is to reduce the strain of tracking rather than to handle all store maintenance. Further features may include the ability to generate reports of sales, but again the interpretation is left to the management. In addition, since theft does occasionally occur, the system provides solutions for confirming the store inventory and for correcting stock quantities.

2. System Requirements and Software

Operating System: No particular OS required because PHP is platform independent.

Software: XAMPP, MySQL.
XAMPP is an easy to install Apache distribution containing MySQL, PHP and Perl.
XAMPP is really very easy to install and to use - just download, extract and start.

XAMPP for Windows

The distribution for Windows 2000, 2003, XP, Vista, 7 and 8. This version contains:
Apache, MySQL, PHP + PEAR, Perl, mod_php, mod_perl, mod_ssl, OpenSSL phpMyAdmin.

- ✓ Apache 2.4.4
- ✓ MySQL 5.5.32
- ✓ PHP 7.1.24
- ✓ phpMyAdmin 4.0.4
- ✓ FileZilla FTP Server 0.9.41
- ✓ Tomcat 7.0.41 (with mod_proxy_ajp as connector)
- ✓ Strawberry Perl 5.16.3.1 Portable

MySQL Workbench:

MySQL Workbench is a unified visual tool for database architects, developers, and DBAs. MySQL Workbench provides data modeling, SQL development, and comprehensive administration tools for server configuration, user administration, and much more. MySQL Workbench is available on Windows, Linux and Mac OS.

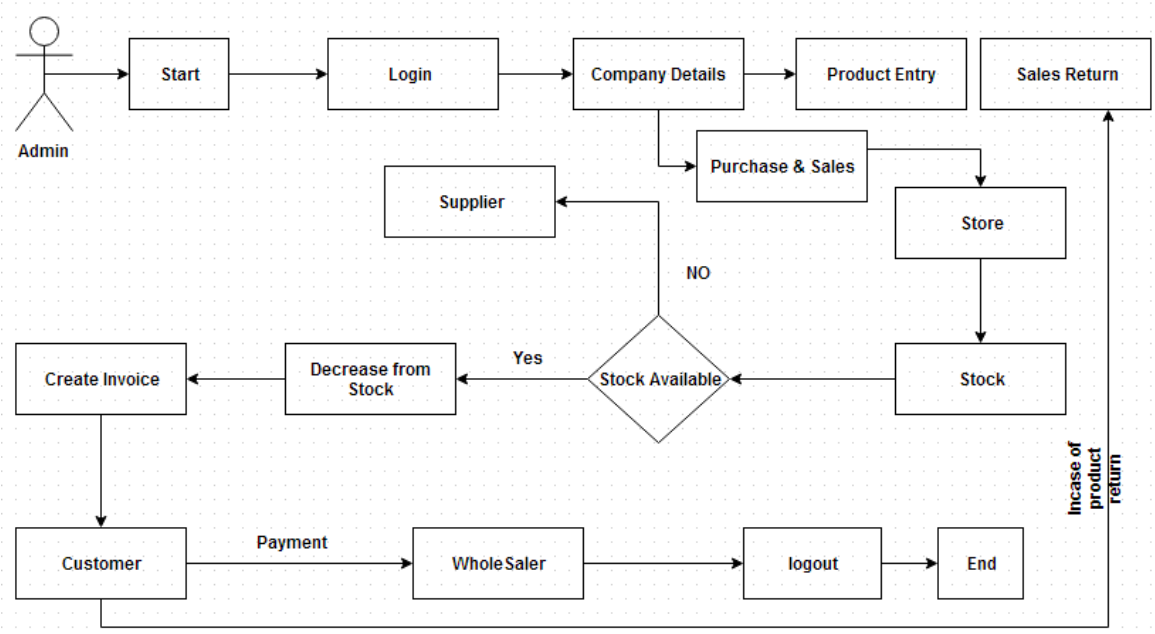
MySQL Workbench enables a DBA, developer, or data architect to visually design, model, generate, and manage databases. It includes everything a data modeler needs for creating complex ER models, forward and reverse engineering, and also delivers key features for performing difficult change management and documentation tasks that normally require much time and effort.

MySQL Workbench delivers visual tools for creating, executing, and optimizing SQL queries. The SQL Editor provides color syntax highlighting, reuse of SQL snippets, and execution history of SQL. The Database Connections Panel enables developers to easily manage database connections. The Object Browser provides instant access to database schema and objects.

MySQL Workbench provides a visual console to easily administer MySQL environments and gain better visibility into databases. Developers and DBAs can use the visual tools for configuring servers, administering users, and viewing database health.

Process Flow Diagram:

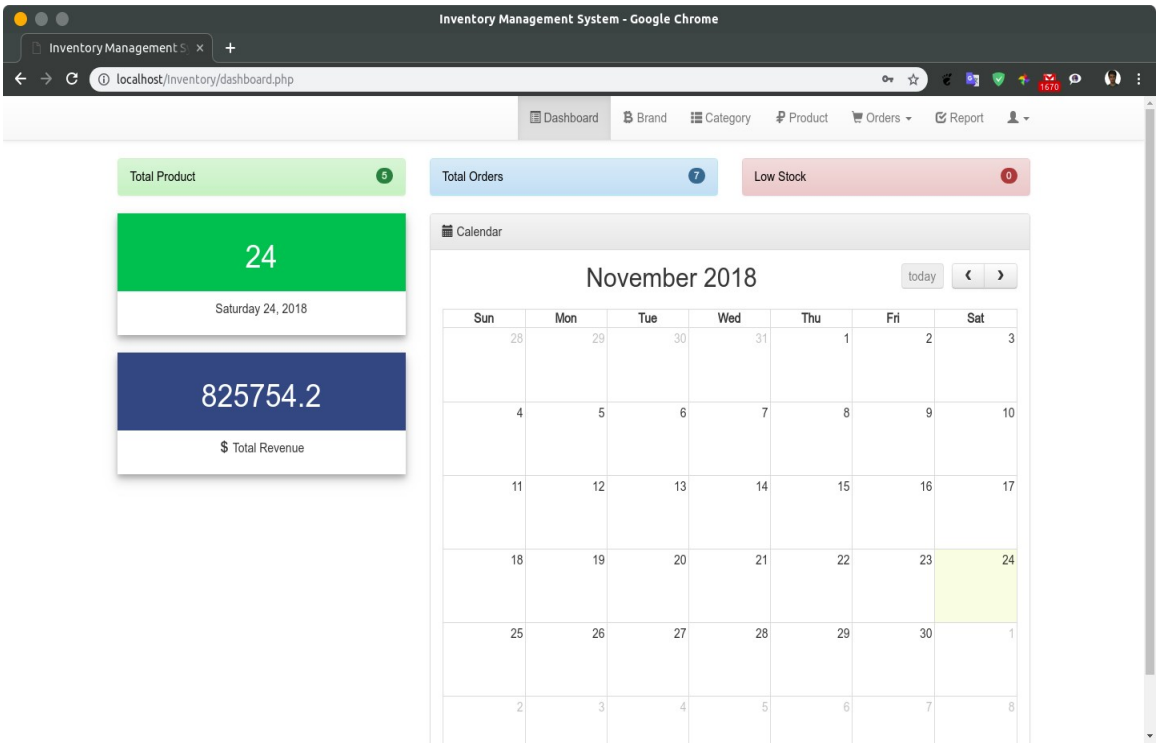
Process Flow Diagram or Flowchart is a diagram which uses geometric symbols and
Arrows to define the relationships. It is a diagrammatic representation of the
Algorithm. The Process flow Diagram of our application is shown below:



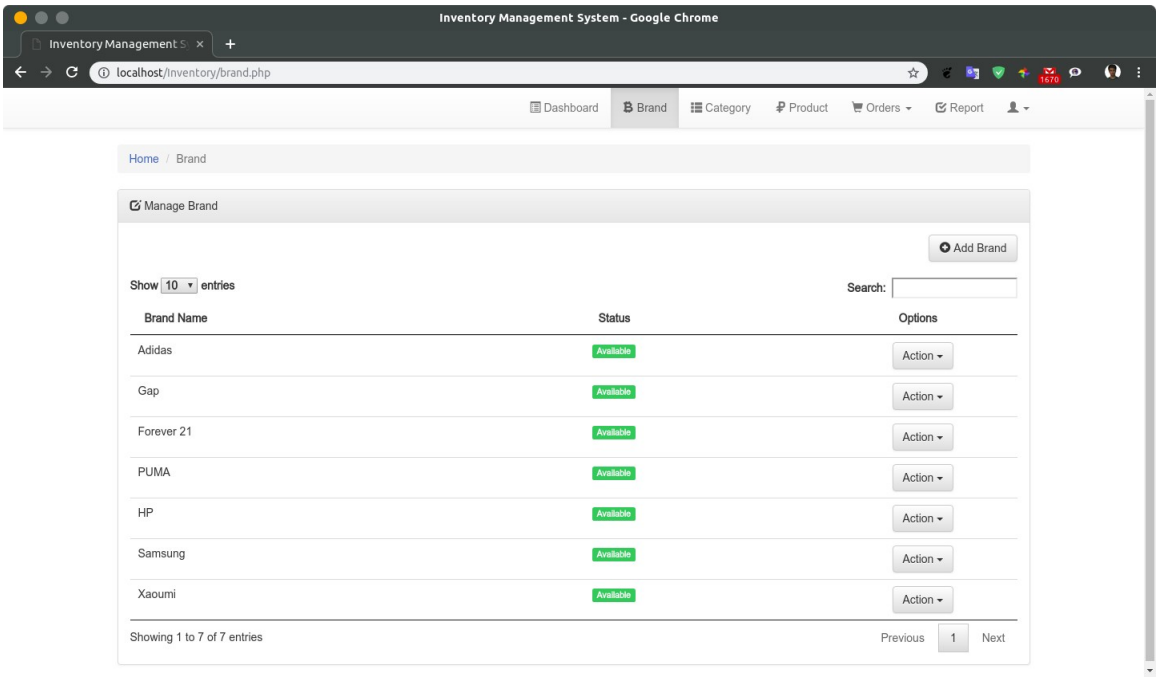
4. User Interface:

4.1 Login Page:

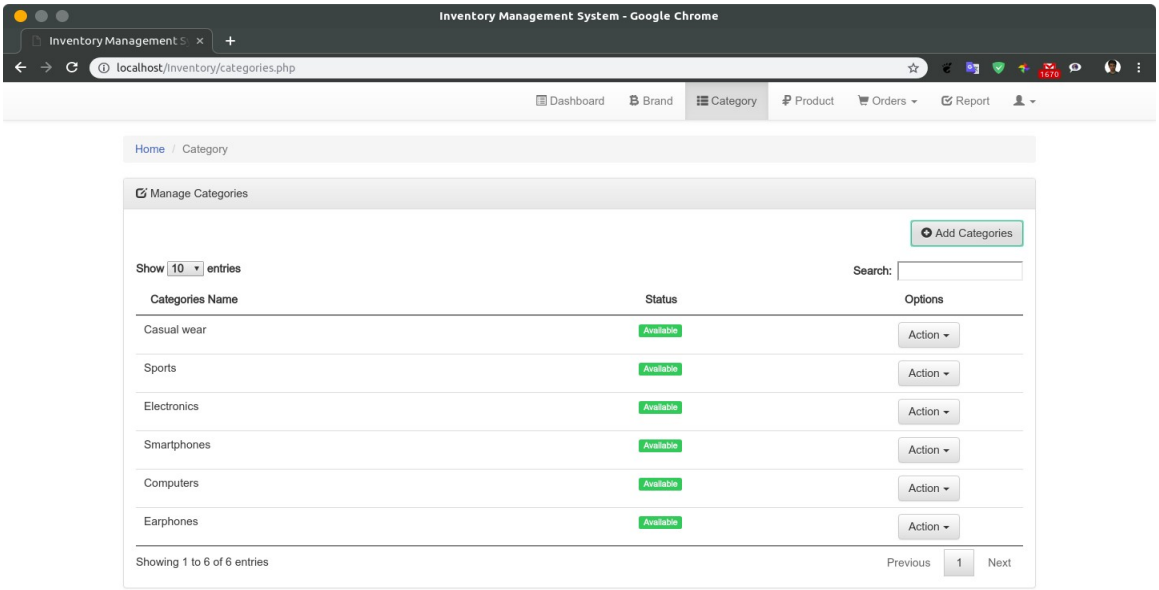
4.2 Dashboard:



4.2 Brand

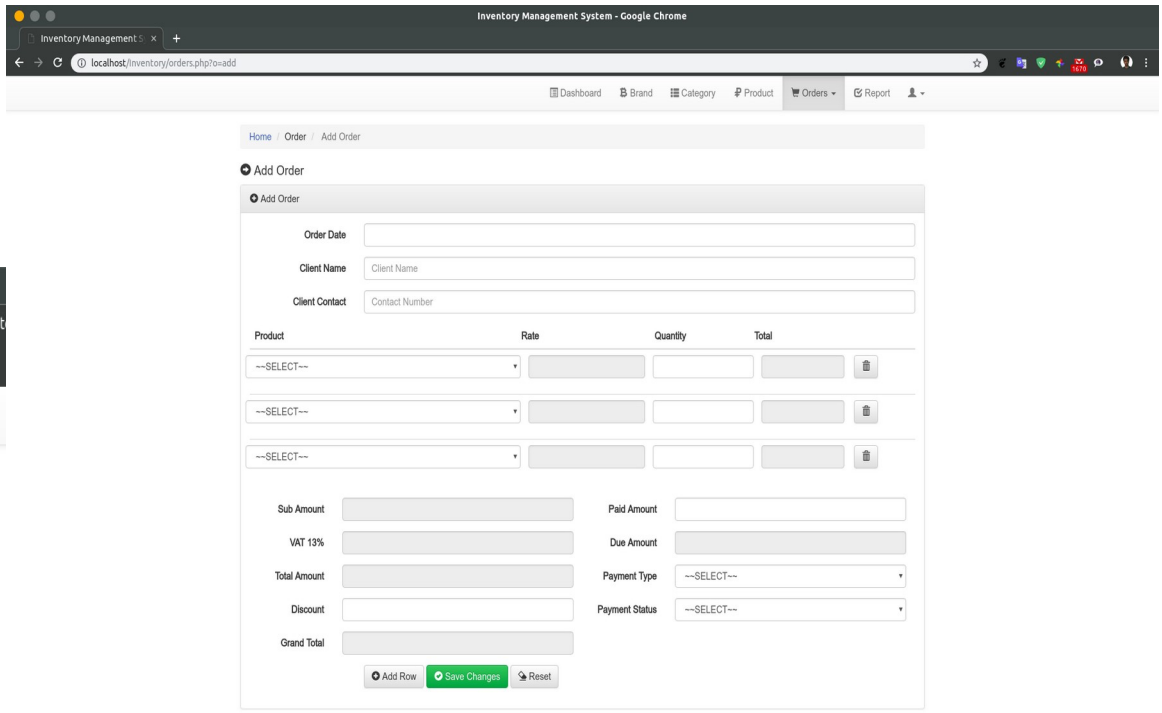

Inventory Management System - Google Chrome
Inventory Management S
localhost/inventory/brand.php
Dashboard
Brand
Category
Product
Orders
Report
Home / Brand
Manage Brand
Add Brand
Show 10 entries
Search:
Brand Name
Status
Options
Adidas
Gap
Forever 21
PUMA
HP
Samsung
Xaoumi
Available
Action
Showing 1 to 7 of 7 entries
Previous
1
Next

4.3 Category:

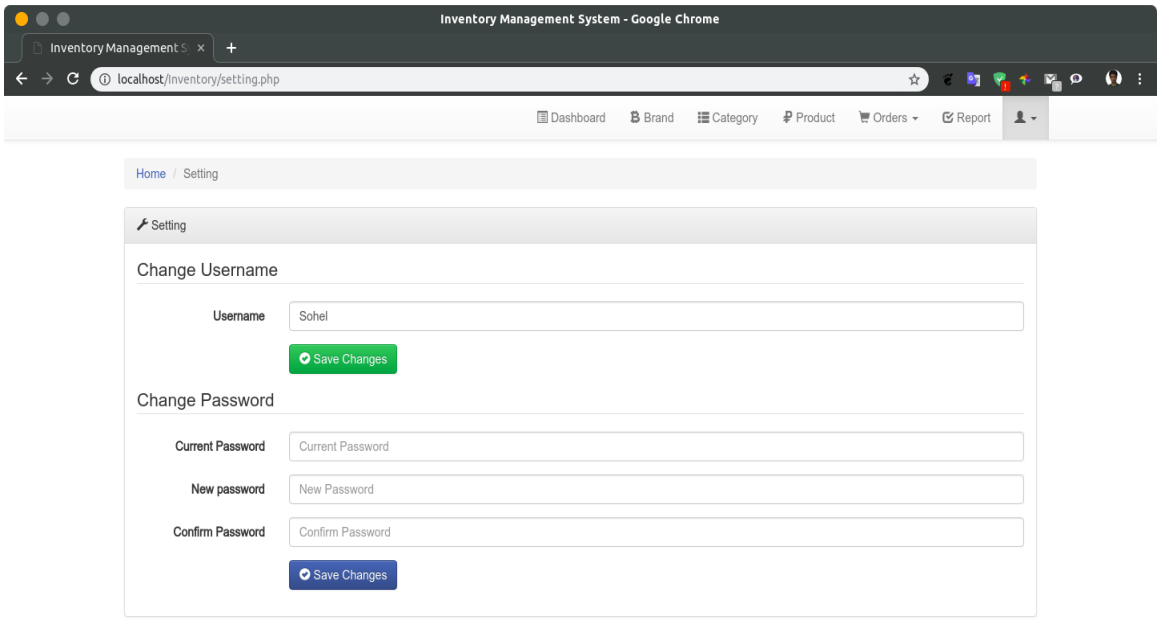

Inventory Management System - Google Chrome
Inventory Management S
localhost/Inventory/categories.php
Dashboard
Brand
Category
Product
Orders
Report
Home / Category
Manage Categories
Add Categories
Show 10 entries
Search:
Categories Name
Status
Options
Casual wear
Sports
Electronics
Smartphones
Computers
Earphones
Available
Action
Showing 1 to 6 of 6 entries
Previous
1
Next

4.4 Product:

4.5 Orders:



4.6 Admin Panel:



5.1 Objectives

The main goal of Inventory Management System is to ensure consistent availability of supplies for consumers. Thus, Inventory Management System is directed toward owners of small to large stores and stock managers who are responsible of maintaining sufficient goods on hand in a retail or manufacturing business. It can scale from a single computer running both client and server software up to multiple stores and warehouses.

5.2 Schedules

The time estimated to complete the Inventory Management System project is fairly short. There will be three major Win-Win Spiral Model cycles through our prototyping stage, beta release, and final release. We will need two weeks of designing the architecture and implementing core features and five weeks of adding functionality and testing. The project can be completed by 6-8 people in at most 7 weeks.

6. Feasibility Rationale

6.1 Assumptions

The above design should works for the Inventory Management System application. However, we are emulating a cash registers interface to work with our software by simulating bar code inputs. A more realistic design of cash register interface can be done to suit the integration, as the interface does not interfere with the data collected. We expect that the cash registers clients are able to update their data to the current point of sale in case of loss of connection to the server. The particular restocking procedure adopted by each store does interfere with the feasibility and accuracy of the application as it does not remind the stock manager to update the data each time they had done any restocking. We also trust that that the Secure Socket Layer (SSL) is reliable in creating a secure connection between a client and a server.

6.2 Risks

One of the major risks covered by this application is theft breaks synchronization between the inventory and the database. The information could be generated by the data stored in this application. The confidence level of trusting data generated depends on the accuracy of the restocking procedure. Therefore, we are facing a risk of reckless stock manager who could detriment the accuracy of the data. As of the reliability of the SSL encryption, a resolution for this could be by developing SSL and digital certificate policy and configuration guidelines. In addition, giving a choice to the user to set the minimum level of SSL used by not violating the policy should convince them the trustworthiness of the application.
Another risk is the competition from other Point of Service software. There are several large competitors in this field including a solution from Microsoft; however, all of these tend to be expensive. Inventory Management System will be a low cost solution mainly targeted at smaller businesses while including the possibility of later expansion.

7 Conclusion:

To conclude, Inventory Management System is a simple desktop based application

basically suitable for small organization. It has every basic items which are used for
the small organization. Our team is successful in making the application where we can
update, insert and delete the item as per the requirement. This application also
provides a simple report on daily basis to know the daily sales and purchase details.
Through it has some limitations, our team strongly believes that the implementation
of this system will surely benefit the organization.

8. References

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