INVENTORY MANAGEMENT SYSTEM

AN INDUSTRIAL INTERNSHIP REPORT

Submitted in partial fulfilment for the award of the degree of

MTech

in

Software Engineering

by

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VIT®

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

School of Information Technology and Engineering

Department of Software and Systems Engineering

NOVEMBER 2019

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School of Information Technology and Engineering

Department of Software and Systems Engineering

DECLARATION BY THE CANDIDATE

I hereby declare that the Industrial Internship report entitled **"INVENTORY MANAGEMENT SYSTEM"**submitted by me to VIT, Vellore, in partial fulfillment of the requirement for the award of the degree of **MTech (Software Engineering)** is a record of bonafide **Industrial Internship-SWE3099** carried out by me under the guidance of **SAEED MOHAMMED ALAM**. I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree in this institute or any other institute or university.

Place: Vellore

Date: **Signature of the Candidate**

School of Information Technology and Engineering

Department of Software and Systems Engineering

BONAFIDE CERTIFICATE

This is to certify that the Industrial Internship report entitled **INVENTORY MANAGEMENT SYSTEM** by **ARVINTH K (16MIS0076)** to VIT, Vellore, in partial fulfillment of the requirement for the award of the degree of **MTech (Software Engineering)** is a record of bonafide work carried out by him /her under my guidance. The project fulfills the requirements as per the regulations of this Institute and in my opinion meets the necessary standards for submission. The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Prof B.SelvaRani
Signature of Internal Guide

Examiner(s) Signature

1.
2.

Crescent Technosoft

INTERNSHIP CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Arvinth.K (Reg:16MIS0076)

MTECH INTEGRATED(SOFTWARE ENGINEERING) IVTH YEAR has undergone INTERNSHIP in the field of WEB DEVELOPMENT in our company for a Period of One Month 3RD June 2019 to 3RD July 2019.

During his tenure with our organization we found him to be sincere and diligent in discharging his duties. He has exhibited good technical skills in his work.

We wish him all the Best for his future Assignments.

FOR CRESCENT TECHNOSOFT

Authorised Signatory

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ABSTRACT

This project is aimed at developing a HTML based application named Inventory Management System for managing the inventory system of any organization. The Inventory Management System (IMS) refers to the system and processes to manage the stock of organization with the involvement of Technology system. This system can be used to store the details of the inventory, stock maintenance, update the inventory based on the sales details, generate sales and inventory report daily or weekly based. This project is categorize individual aspects for the sales and inventory management system. In this system we are solving different problem affecting to direct sales management and purchase management. Inventory Management System is important to ensure quality control in businesses that handle transactions resolving around consumer goods. Without proper inventory control, a large retail store may run out of stock on an important item. A good inventory management system will alert the wholesaler when it is time to record. Inventory Management System is also on important means of automatically tracking large shipment. An automated Inventory Management System helps to minimize the errors while recording the stock.

ACKNOWLEDGEMENT

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I would like to express my special gratitude and thanks to my external guide **Mr SAEED MOHAMMED ALAM.**Manager, Crescent Technosoft and internal guide **Prof. B SELVA RANI .**Assistant Professor, SITE for their esteemed guidance, immense support and encouragement to complete the internship successfully.

I thank the management of VIT, Vellore for permitting me to use the library resources. I also thank all the faculty members of VIT, Vellore for giving me the courage and strength I needed to complete my goals. This acknowledgement would be incomplete without expressing my whole hearted thanks to my familyand friends who motivated me during the course of the work.

Place: Vellore

Date: ARVINTH K

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LIST OF ABBREVIATIONS

ACRONYM	EXPANSION
IMS	Inventory Management System
RAM	Random Access Memory
HTML	Hyper Text Mark-up Language

CHAPTER-1

1. INTRODUCTION:

1.1 Problem Statement:

After analysing many existing IMS we have now the obvious vision of the project to be developed. Before we started to build the application team had many challenges. We defined our problem statement as:

- To make desktop based application of IMS for small organization.
- To make the system easily managed and can be secured.
- To cover all the areas of IMS like purchase details, sales details and stock management.

1.2 Motivation:

Our Main motivation is to create more efficient method for inventory managing so that the clients can increase their profit. The other main objective is to Meet the customer needs.

1.3 OBJECTIVE:

Primary objective

The primary objectives of the project are mentioned below:

- To know the fundamentals of the HTML,PHP and Databases with MySql.

Secondary objective

The secondary objectives of this project are mentioned below:

- To develop an application that deals with the day to day requirement of any production organization
- To develop the easy management of the inventory
- To handle the inventory details like sales details, purchase details and balance stock details.

- To provide competitive advantage to the organization.
- To provide details information about the stock balance.
- To make the stock manageable and simplify the use of inventory in the organization.

1.3.1 PROPOSED SYSTEM:

This application is used to show the stock remaining and details about the sales and purchase. It gives the details about the stock on daily based and weekly based. The details components are described below:

Login page: As application starts the login page appears. Admin login is determined by the username and password that has all the authority to add, update and delete the stock of the organization as per the requirement.

Create Godown: We can create godown if we need to extend or we have more than one godown. We can create the godown along with the date.

Sales details: It show the details about the sales and the remaining stock of sales. It also show the details about the sales in return.

Purchase details: It shows the details about the purchase made by the organization along with the price and dates.

1.3.2 ADVANTAGES OF PROPOSED SYSTEM:

- Improves the accuracy of inventory orders.
- Leads to a more organized warehouse
- Increases efficiency and productivity
- Keeps your customers coming back for more
- Achieve efficiency and productivity in operations.
- Minimise inventory costs and maximize sales & profits.
- Integrate your entire business.
- Automation of manual tasks.
- Maintain customer happiness.

CHAPTER-2

2. TECHNOLOGIES LEARNT:

- PHP
- MySQL
- HTML
- BOOTSTRAP

PHP:(HYPERTEXT PREPROCESSOR)

Basics about PHP and then we used various functionalities present in our project.

MySQL:

We learned various sql queries and implemented the database in the sql.

HTML:(HYPERTEXT MARKUP LANGUAGE)

We created the user Interface using the HTML. Also we learned different tags and syntax.

BOOTSTRAP:

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

CHAPTER-3

3. SYSTEM DESIGN:

3.1 SYSTEM ARCHITECTURE:

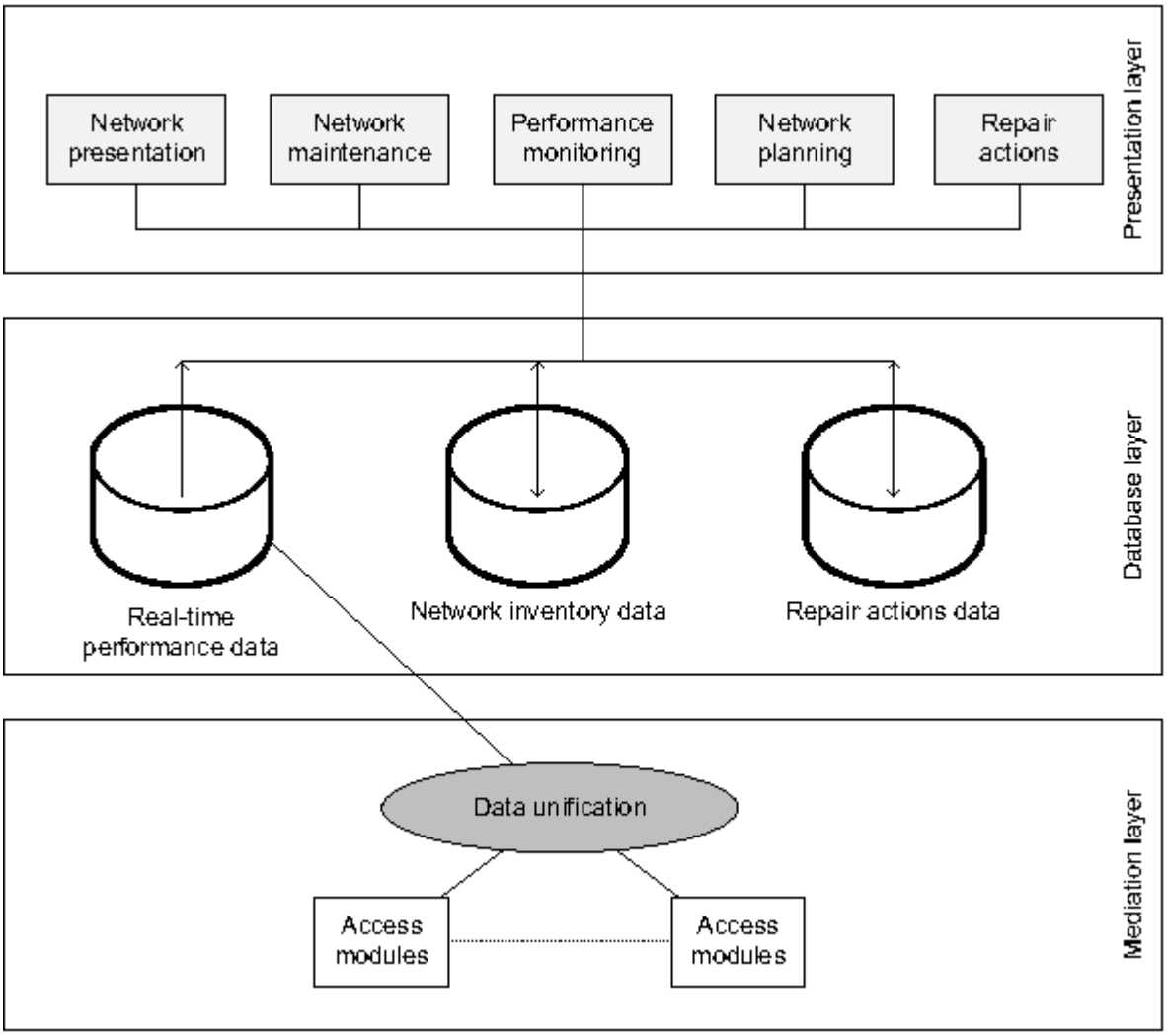

Fig 3.1-System Architecture

3.2 Module Description:

The various modules involved in this system are 1.Register module 2.Login module 3.Order module 4.Categories Module 5.Brand Module 6.Products Module

Register Module:

In this Module the user can register using user credentials such as username,email,password,mobile number,etc.

Login module

In this module the user can login using email address and password.

Order module

In this module the user can login various products and billing of the product is done here,

Categories module

Using this module we can add the products to various categories such as electronics,mobiles, etc.We can also manage the products present in the various categories.

Brand module

This module is used to add various products to specific brands such as mi phones,mi headphones etc. We can also manage the products in the Brand module.

Products module

This module is mixture of categories and brand module.Also some doesn’t come under certain brands are stored here. The Products without the brand are added here.

3.3 System Specification

3.3.1 Software Requirements

- BootStrap Package
- Xampp Server
- Windows 10,8

3.3.2 Hardware Requirements

- 8.00 GB RAM
- 1 TB Hard Disk

3.4 Detailed Design

3.4.1 Use case Diagram

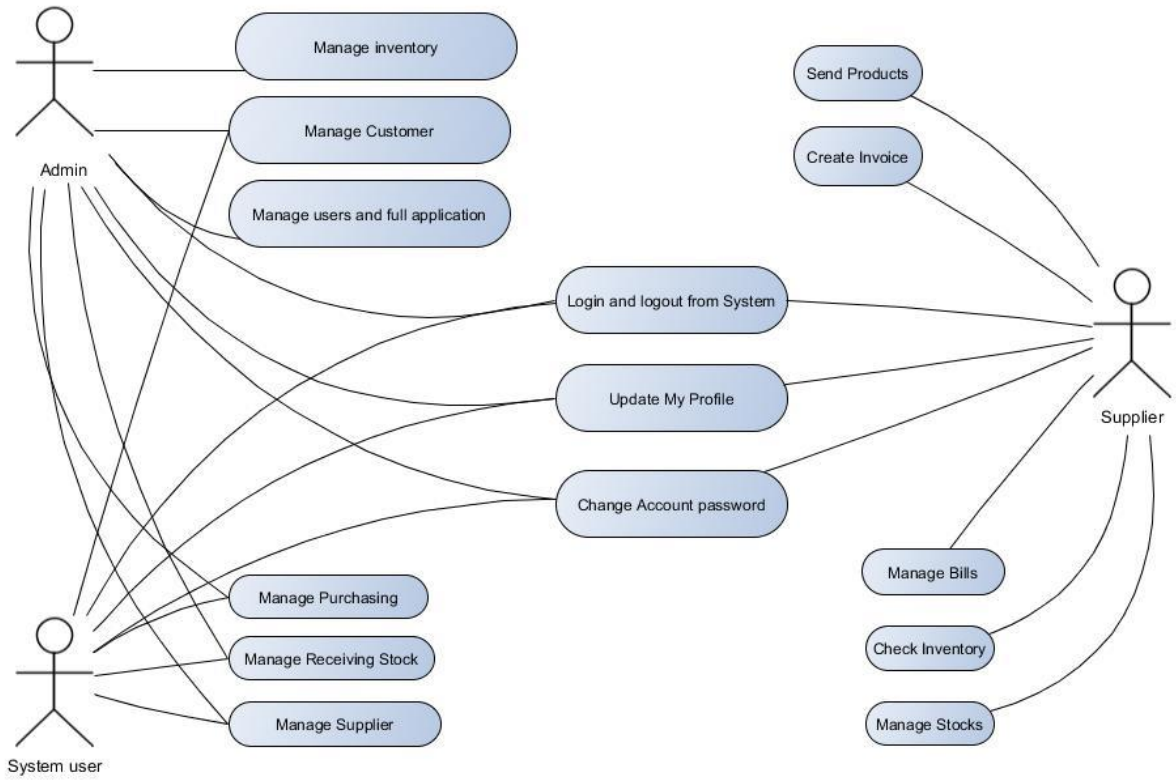

Fig-3.2 Usecase Diagram

3.4.2 Sequence Diagram

- **Sequence Diagram for place an order**

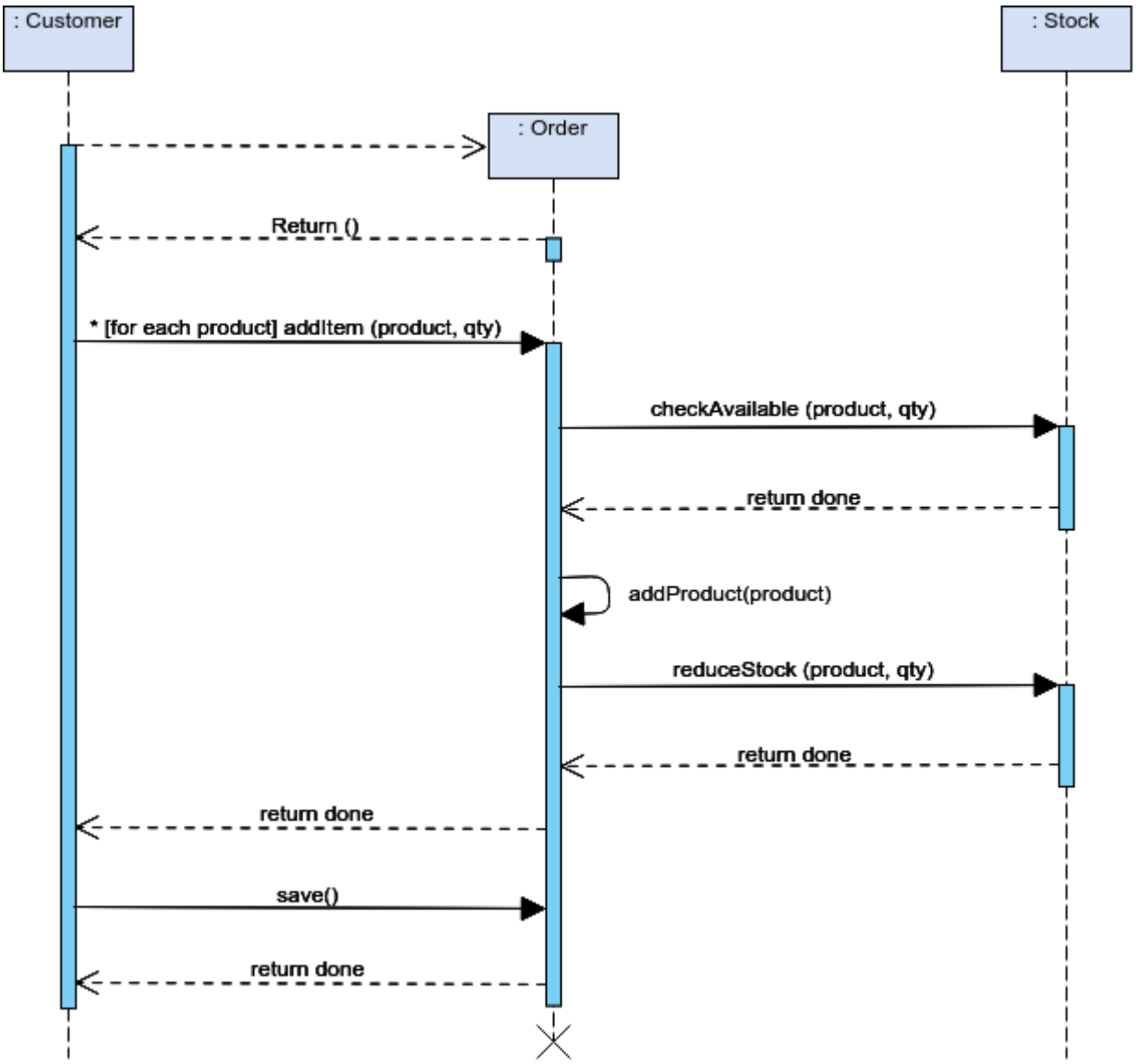

Fig-3.3 Sequence diagram

3.4.3 Class Diagram

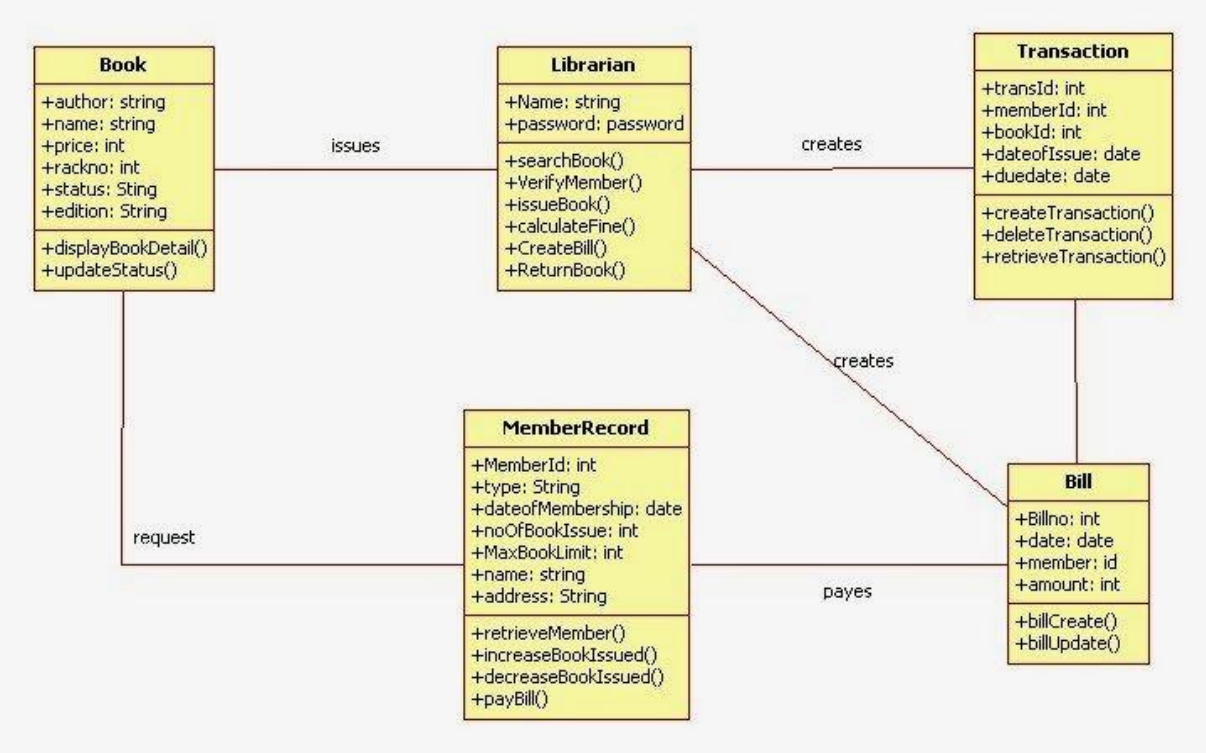

Fig 3.4 Class Diagram

3.4.4 Dataflow diagram

DFD-Level 0:

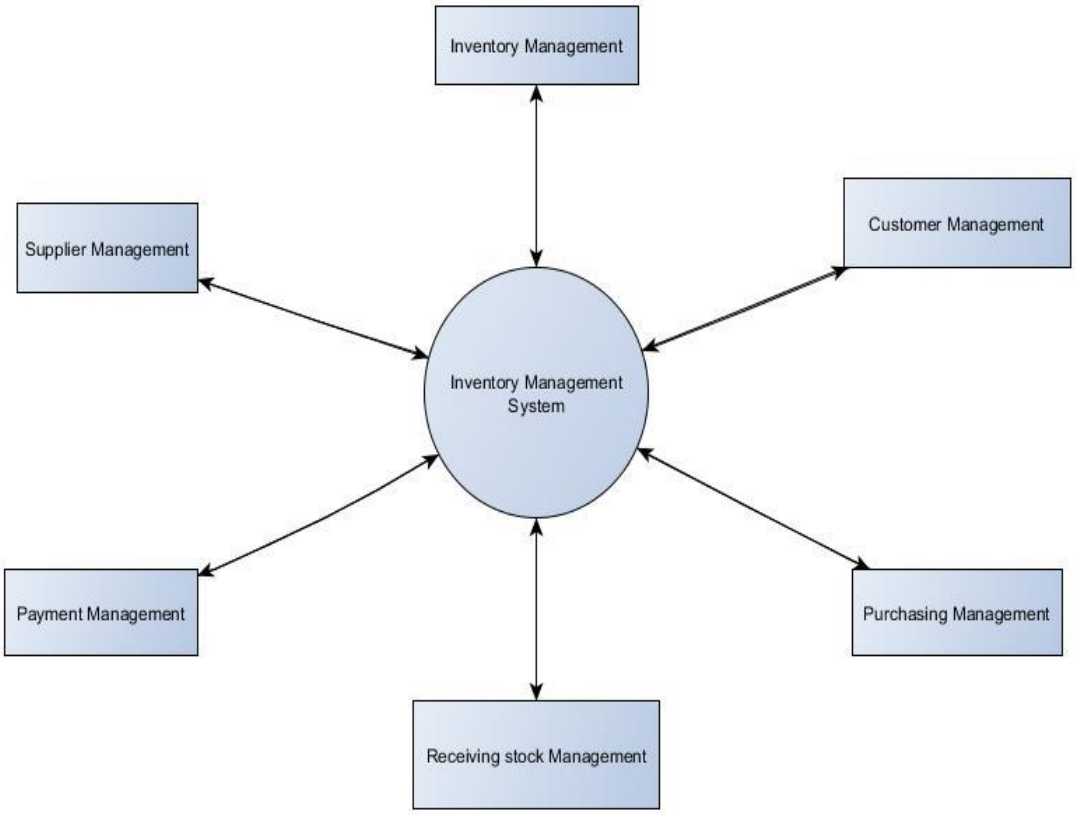

Fig 3.5 Dataflow diagram level-0

Level-1:

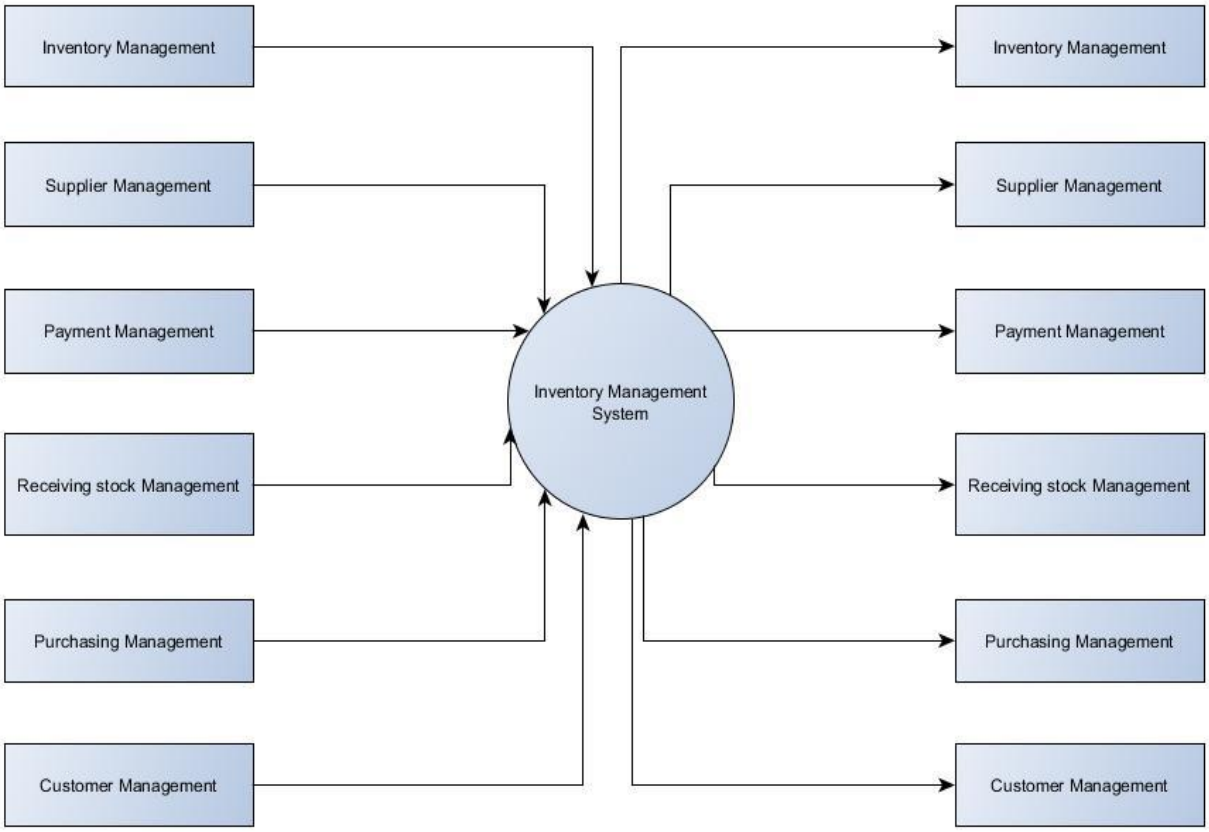

Fig-3.6 Dataflow diagram level-1

Level-2:

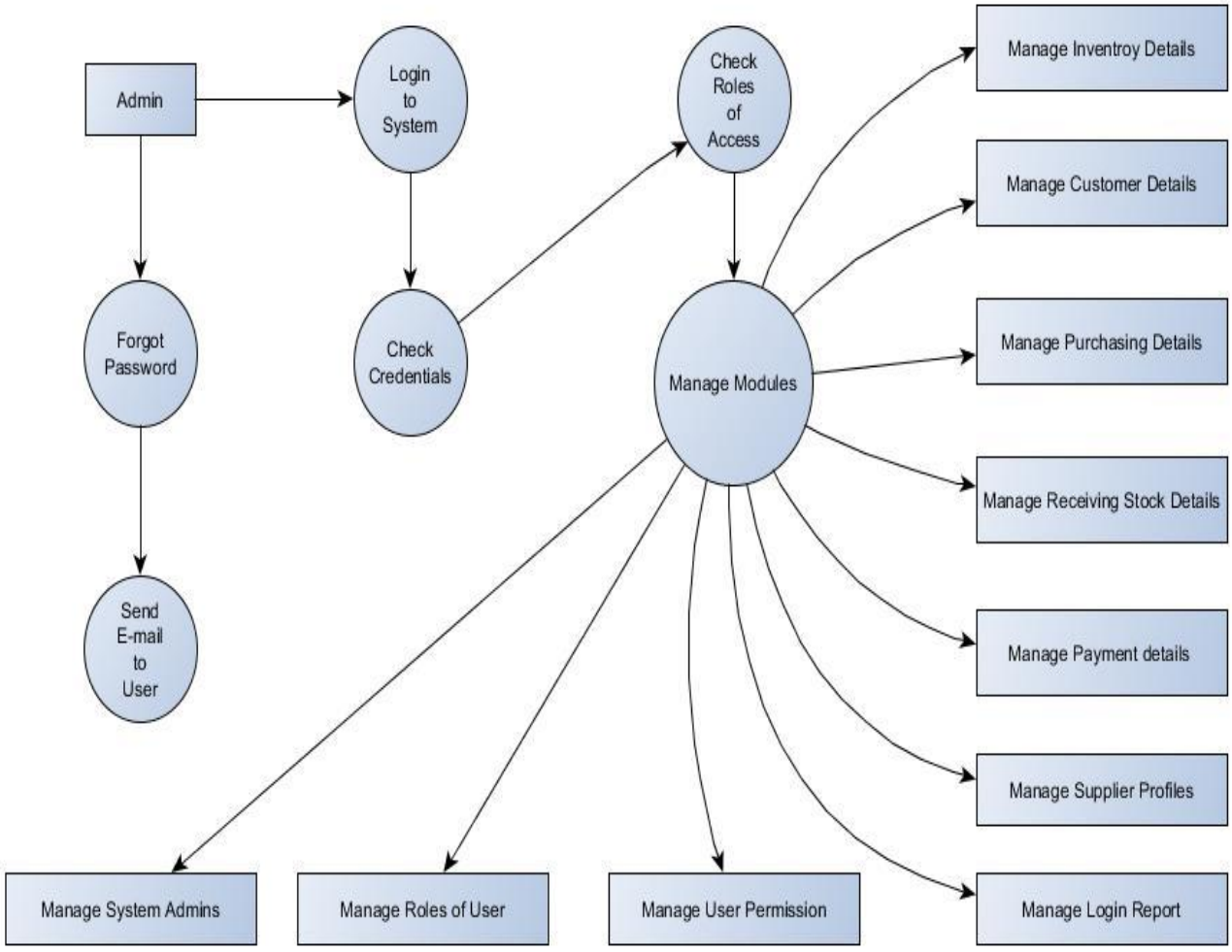

Fig 3.7 Dataflow diagram level-2

3.4.5 Activity diagram

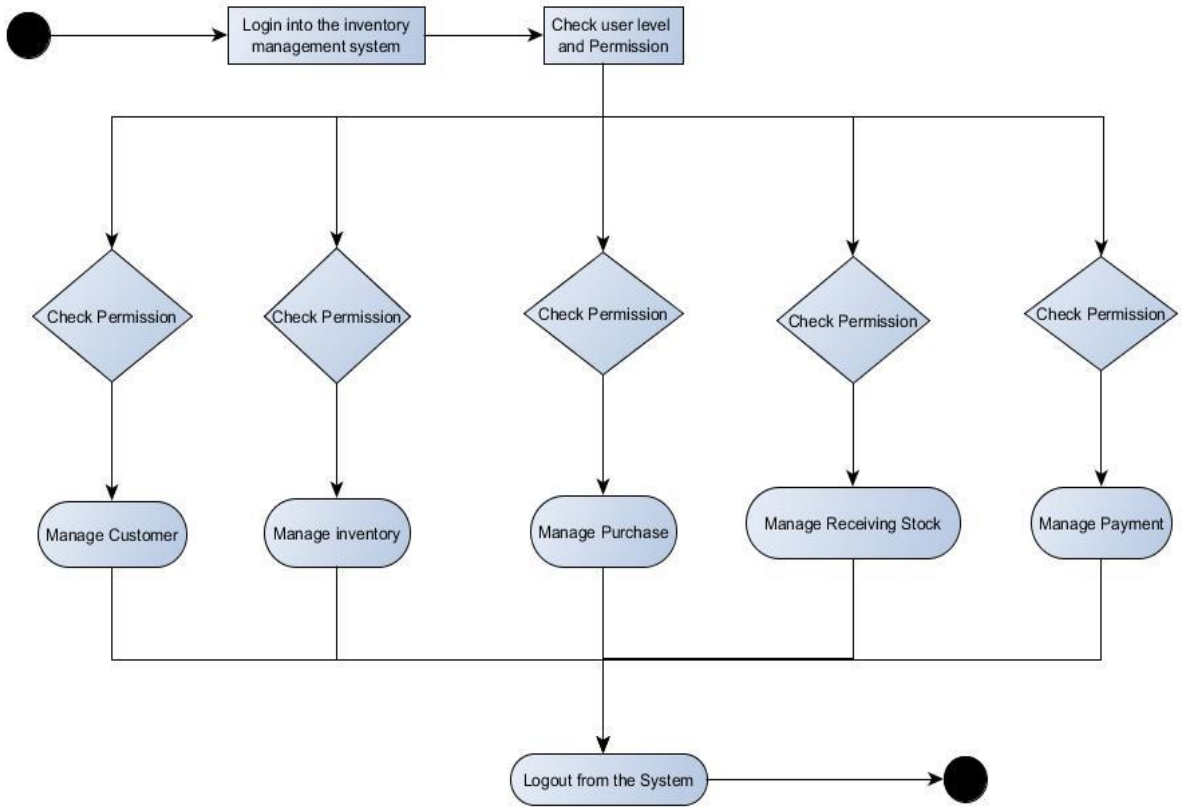

Fig 3.8 Activity diagram

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4 IMPLEMENTATION

4.3 Implementation details

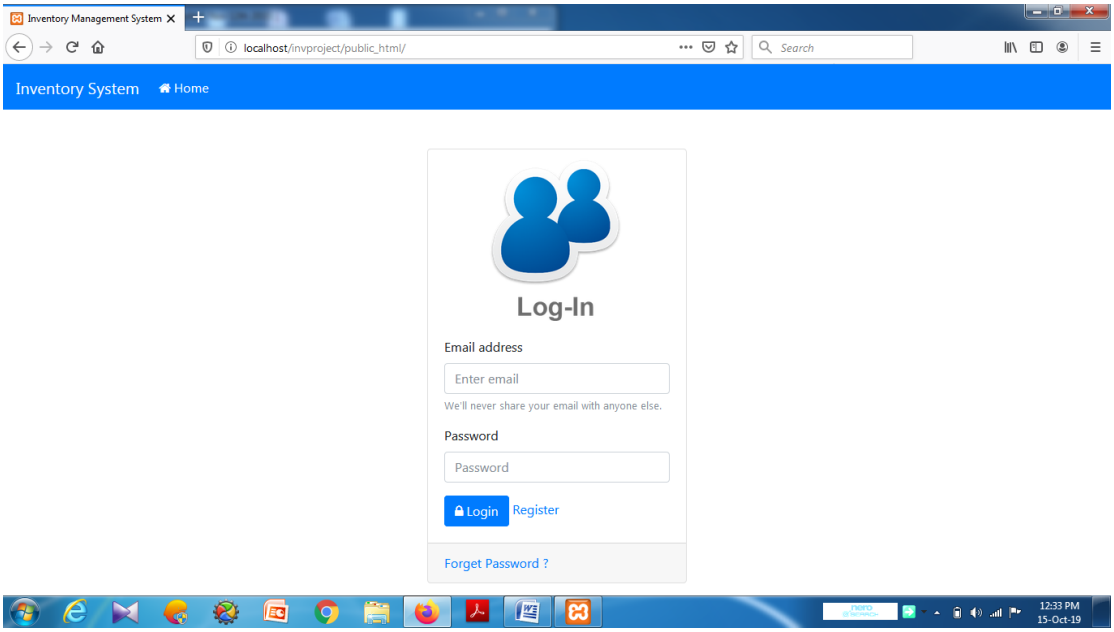

Fig-4.1 Login page

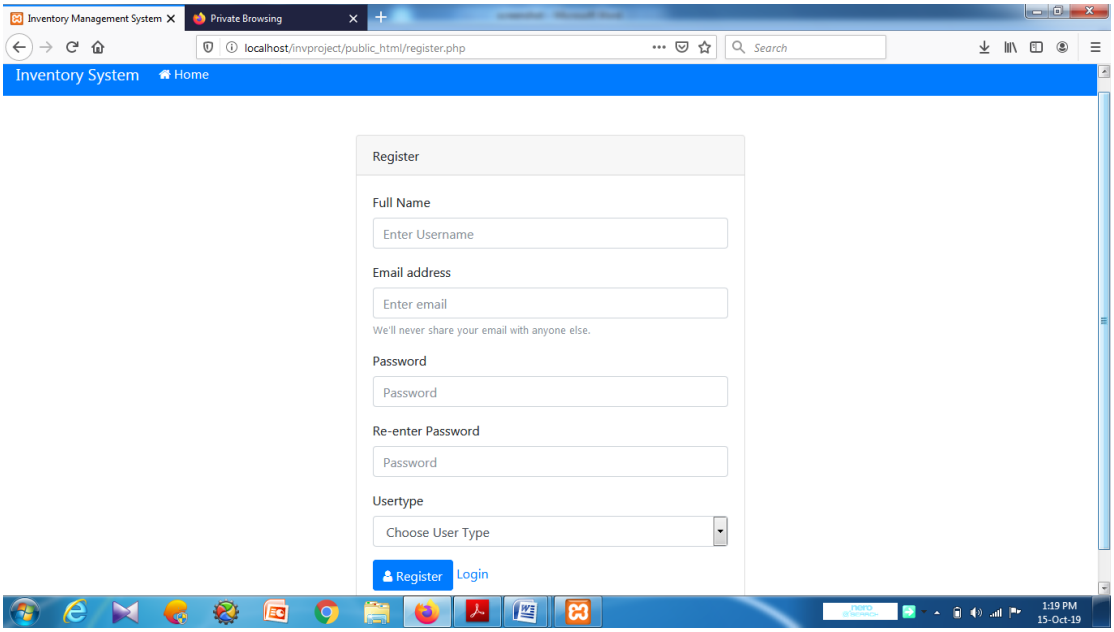

Fig-4.2 Register page

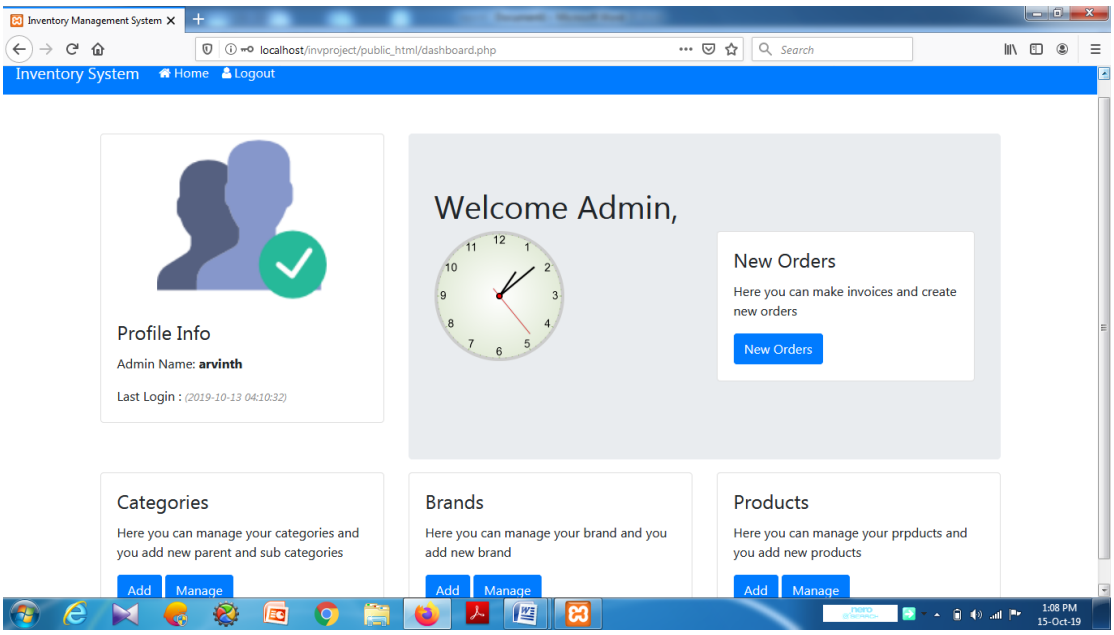

Fig-4.3 home page

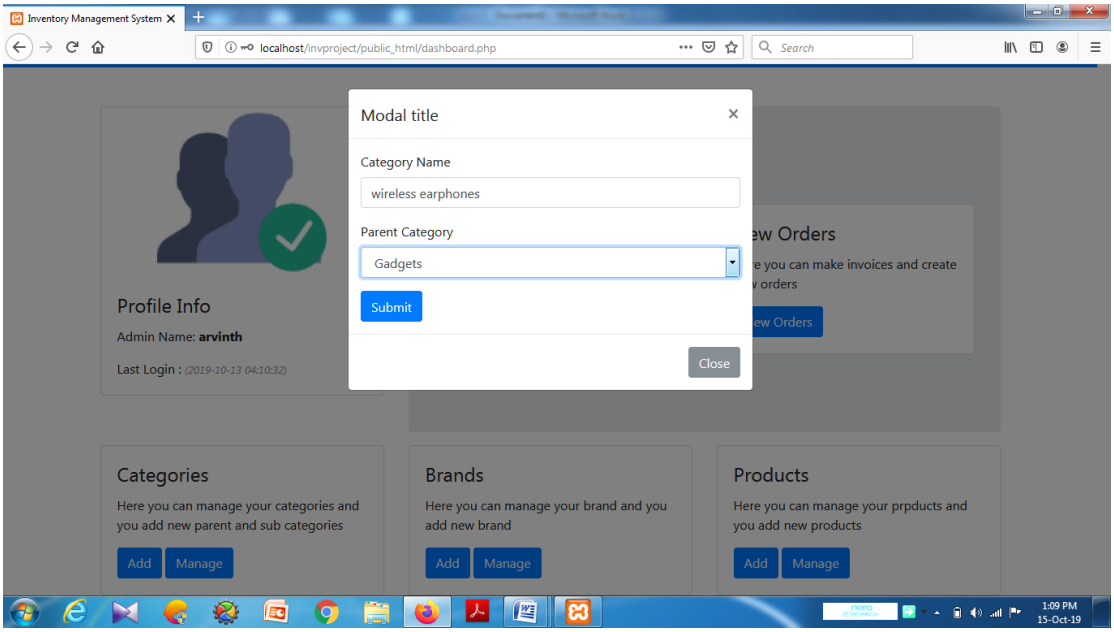

Fig-4.4 Modal description

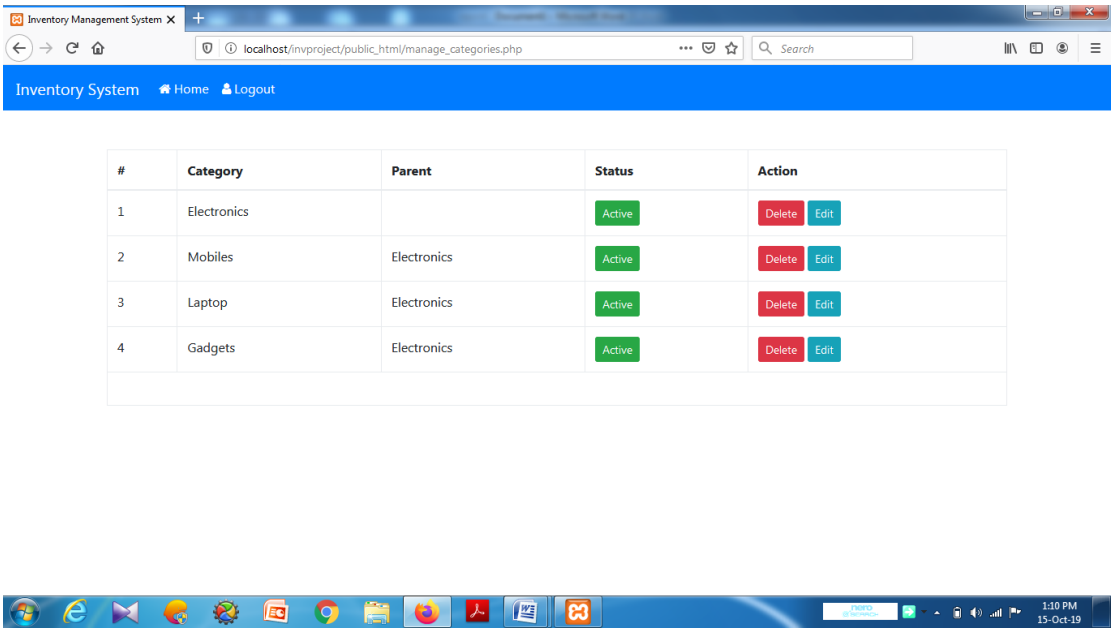

Fig4.5 Manage Categories

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5 TEST RESULTS

5.1 TEST CASES:

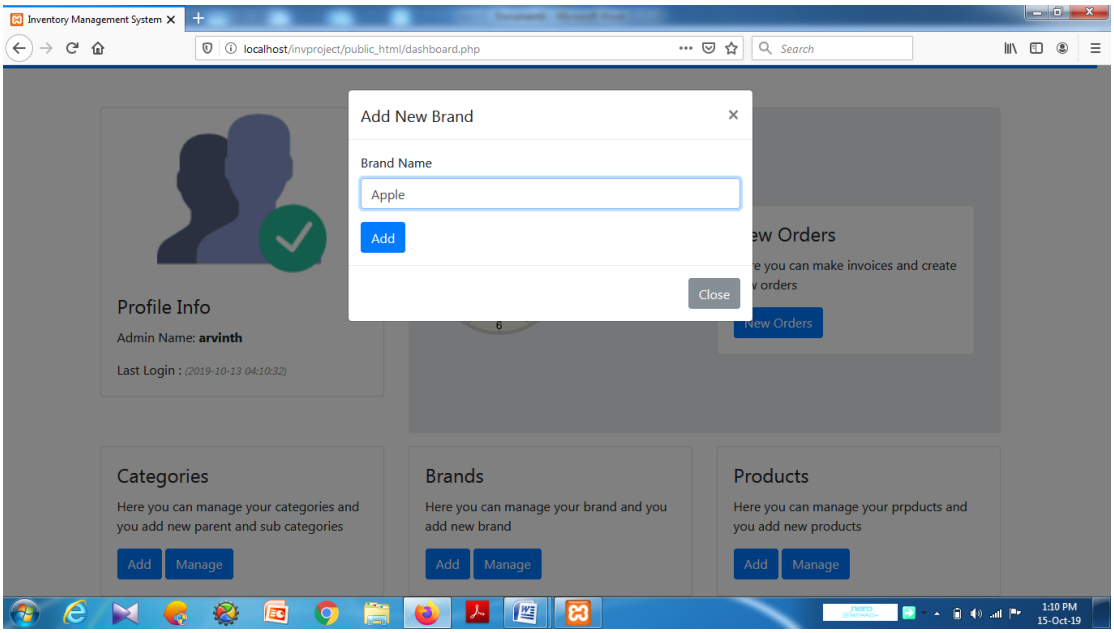

Fig-5.1 Add Brand

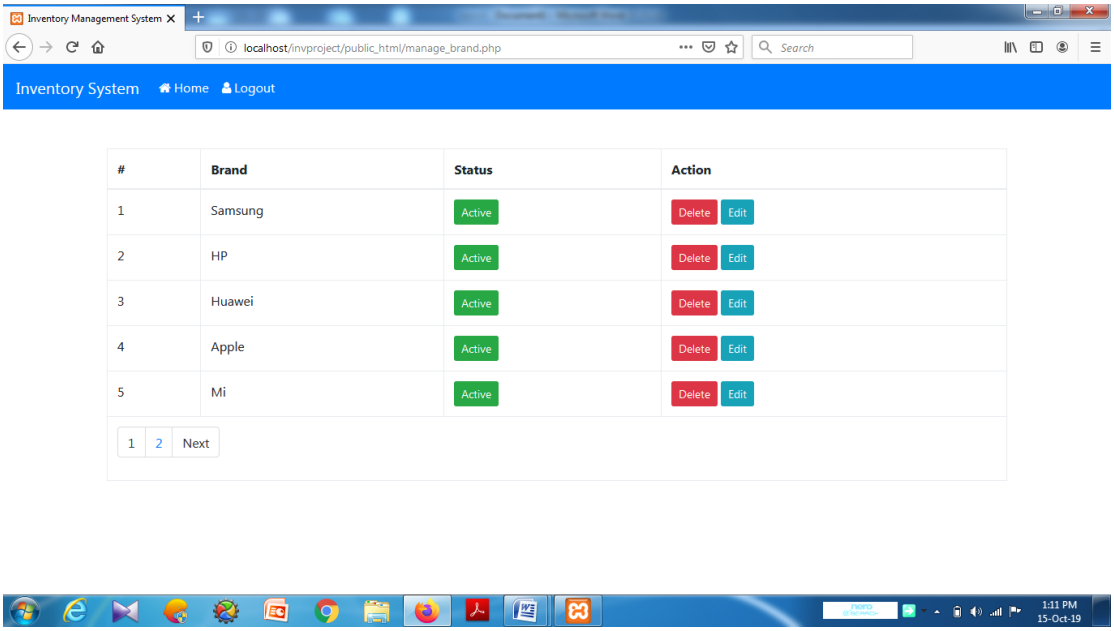

Fig-5.2 Manage brand

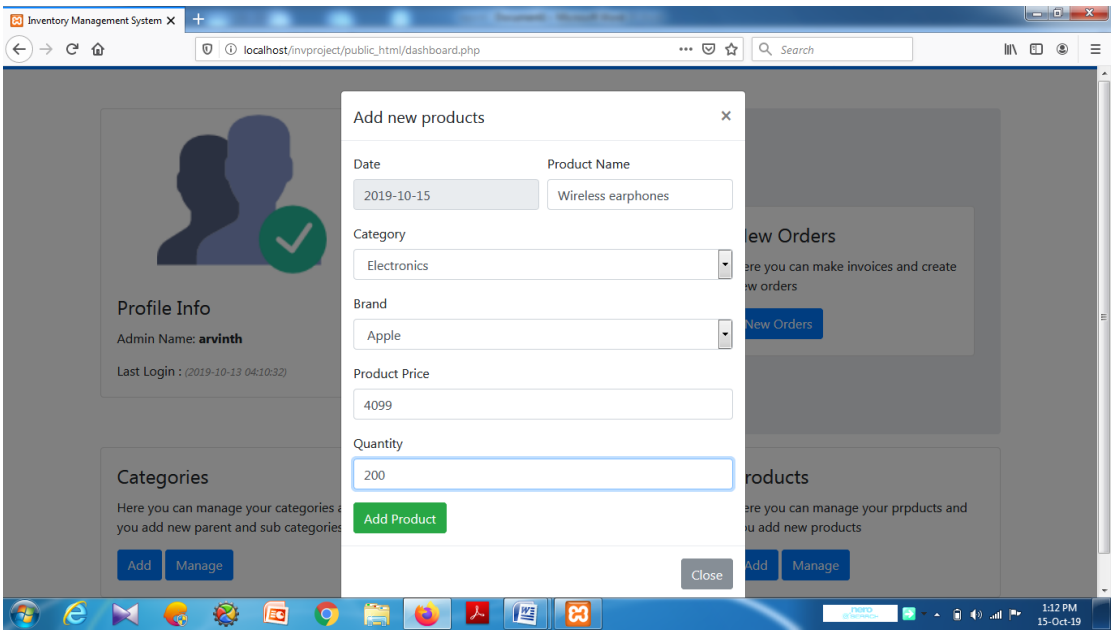

Fig-5.3 Add Product

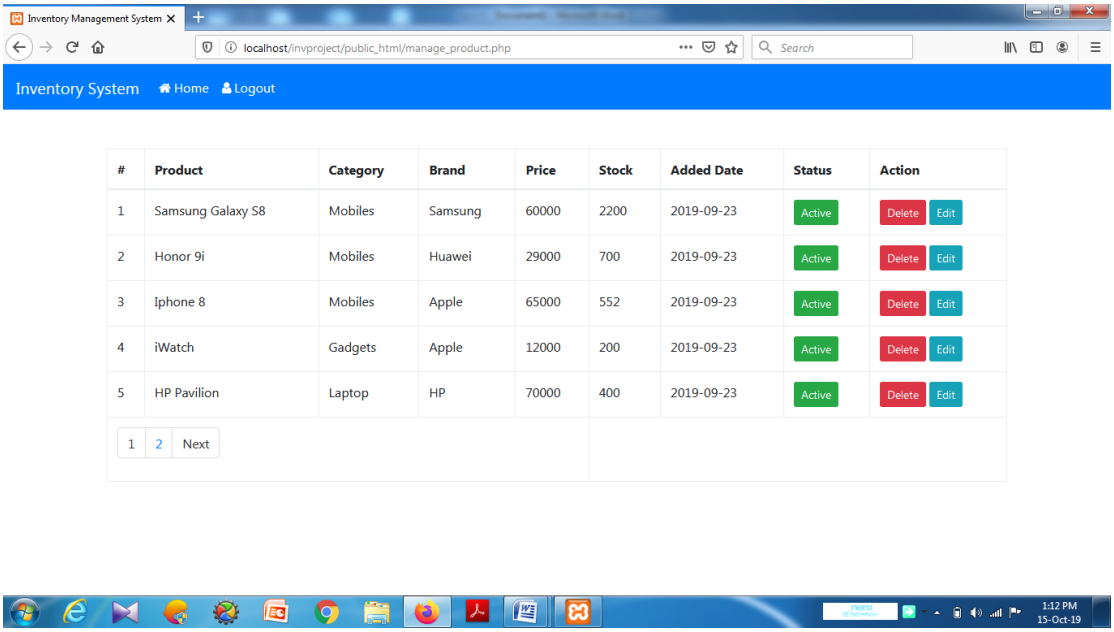

Fig-5.4 Manage Product

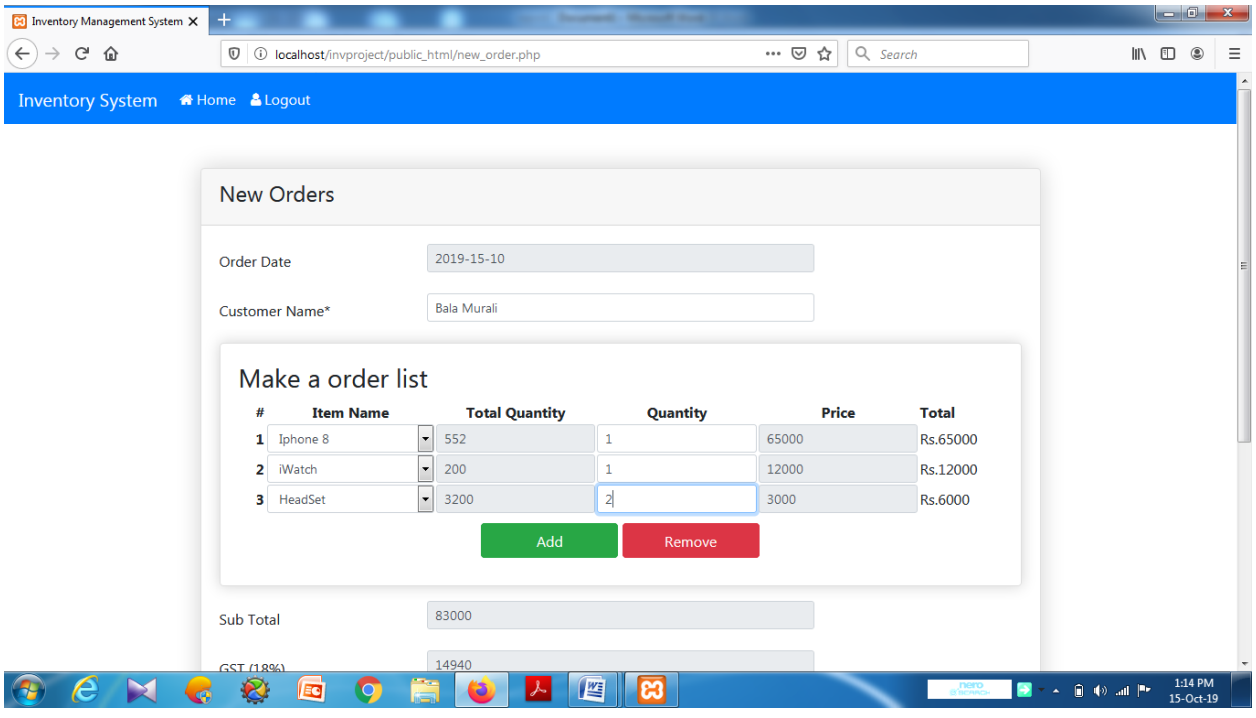

Fig-5.5 Orders

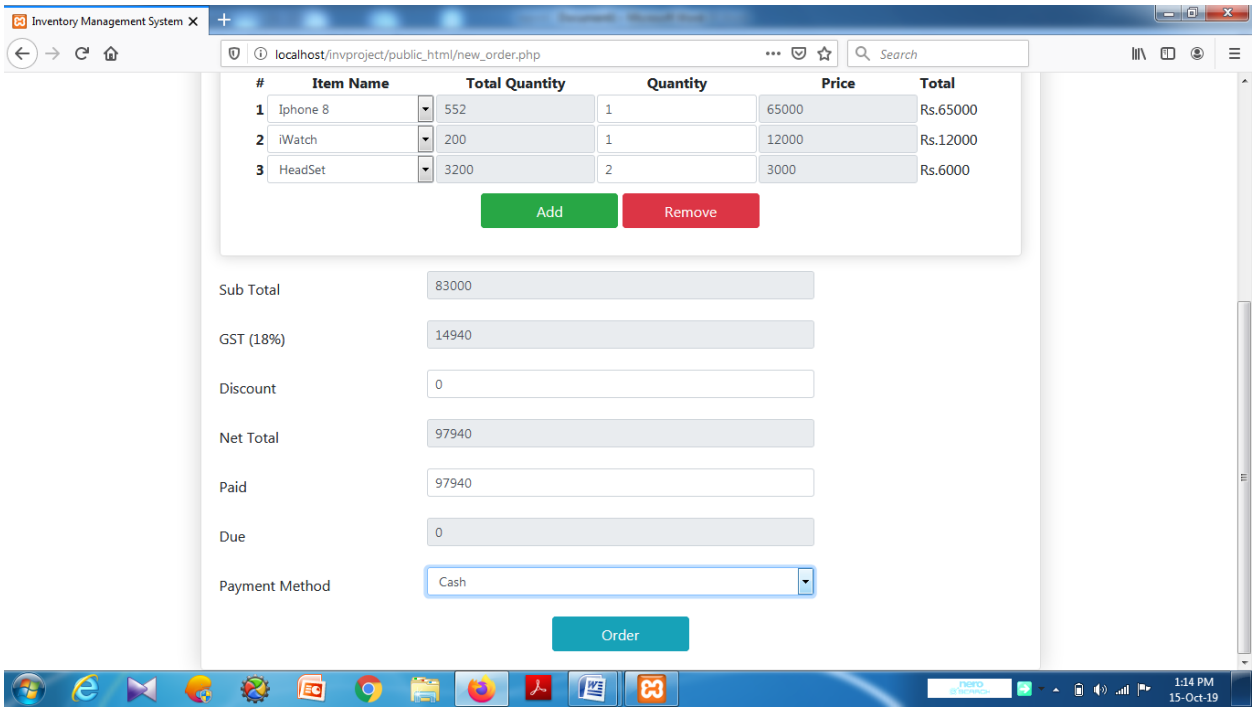

Fig-5.6 Orders

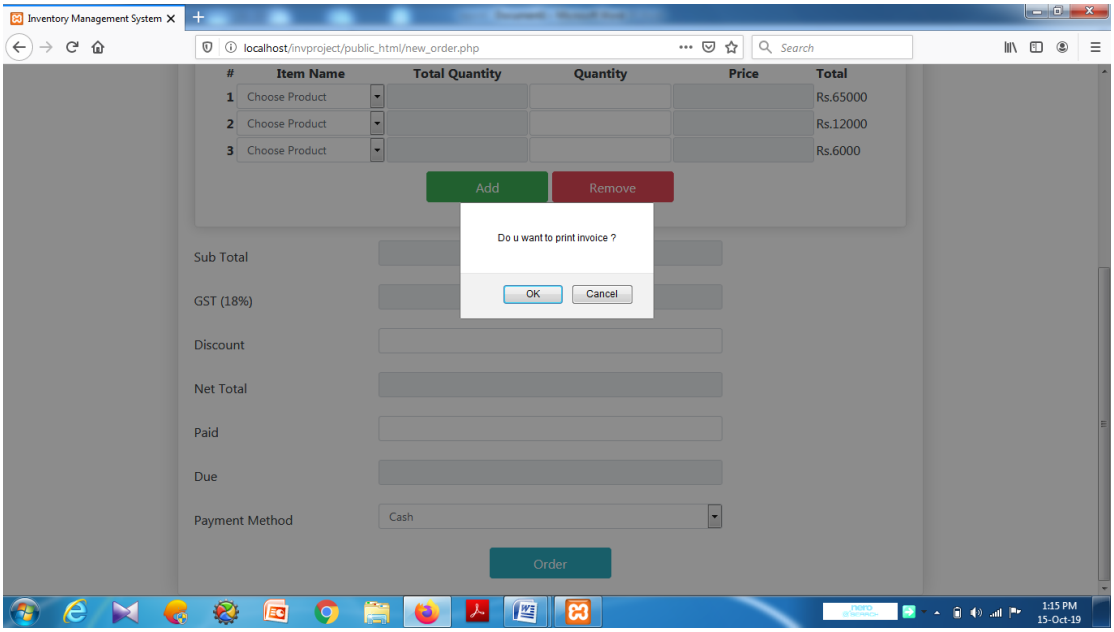

Fig-5.7 Invoice Confirmation

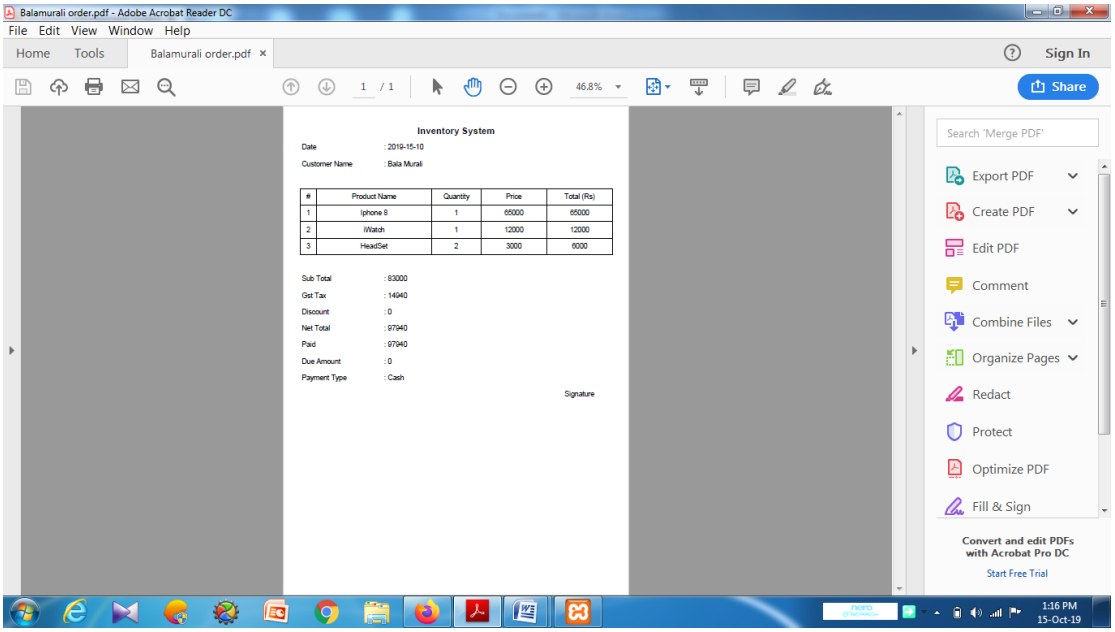

Fig-5.8 Invoice

CHAPTER-6

6 RESULTS AND DISCUSSIONS

I developed this web for **INVENTORY MANAGEMENT** using the Bootstrap and PhP Programming. It is very efficient for the customer and saves the time in managing the inventory. Admin can view customer's ID, product, stock avail invoice generation etc. According to that admin can manage products and its available. This web can fit for any product management and helps to reduce the manual work. Data stores in a secured manner and it is avaliable to the authenticated person.

CHAPTER-7

7 CONCLUSION AND FUTURE WORK

7.3 Conclusion

The project "Inventory Management" mainly as the name suggests deals with the calculation of processed resources for an accurate inventory control and process management for a domain specific client who are related to the subject of products. This enables the inventory to be applied at every level in the hierarchy of the products and its complex combinations of various products. As a part of the standard maintaining a drill of risk management is done in order to sustain during the days of special occasion or holidays when the demand reaches to rather more different scale as compared to other days.

These occasions call on for special inclusions into the inventory which reflects on the products and in turn reflects the supplier being used up eventually. Thus was provided the liberty of adding special offers to the customers for some special occasion and is regarded as a key feature.

To be able to simplify the user friendliness even more the concept of 'invoice' is added which enables the manager to see the previous products ordered and then based on the informational analysis done on the data a invoice is then generated which would suit the requirements of the current year and then accordingly an appropriate order form is generated and then passed on to the vendor as the requirements for replenishing the stock.

7.4 Future Work

There is a scope of lot of improvement given that the application of this project which is now limited to only some products can be applied to other branches also given that it is subjected to appropriate changes. Also considering the large technological movement, access to the program through a web application would be ideal for remote access to the program and database. This would require a dedicated server to host the database and therefore has been considered as an optional enhancement.

CHAPTER-8

REFERENCE

1. https://www.w3schools.com/php/

2. https://www.w3schools.com/bootstrap/