OFFICE INVENTORY MANAGEMENT SYSTEM

An Internship Report

Submitted By

Patel Meshwa Nimeshkumar

190320107072

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

Computer Engineering

L.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY

Ahmedabad

Gujarat Technological University, Ahmedabad

April,2023

L. J. Institute of Engineering & Technology

Ahmedabad

CERTIFICATE

This is to certify that the project report submitted along with the project entitled "**Office Inventory Management System"** has been carried out by **Patel Meshwa Nimeshkumar** under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering, 8th Semester of Gujarat Technological University, Ahmedabad during the academic year 2022-23.

Prof. Munira Topia — **Internal Guide**

Prof. Shruti Raval — **Head of the Department**

AAKASH

To,

Date: 27-4-2023

Head of Department

L.J. Institute of Engineering & Technology

Ahmedabad, Gujarat

Subject: Project Completion Certificate

This is to certify that **Patel Meshwa Nimeshkumar** (Student of Computer Engineering, Enrolment Number- **190320107072**) has successfully completed the project (from 23rd January 2023 to 23rd April 2023) at Aakash Informatics.

During this time, she was found to be hardworking, punctual, sincere, and very cooperative with other team members.

We are so grateful to have such an intern who has put her whole effort into the project. We consider her the best team player and would like to appreciate her technical as well as non-technical skills throughout her tenure.

We wish her success in the future.

From Aakash Informatics

Ekta Mehta

Ekta Mehta (HR)

AAK AHMEDABAD

Aakash Informatics

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GUJARAT TECHNOLOGICAL UNIVERSITY

CERTIFICATE FOR COMPLETION OF ALL ACTIVITIES AT ONLINE PROJECT PORTAL

B.E. SEMESTER VIII, ACADEMIC YEAR 2022-2023

Date of certificate generation : 15 May 2023 (09:17:42)

This is to certify that, ***Patel Meshwa Nimeshkumar*** (Enrolment Number - 190320107072) working on project entitled with ***Office Inventory Management System (OISM)*** from ***Computer Engineering*** department of ***L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY, AHMEDABAD*** had submitted following details at online project portal.

Internship Project Report	**Completed**

Name of Student : P a t e l M e s h w a Nimeshkumar

Name of Guide : Ms.Topia Munira M Salim

Signature of Student : _____

*Signature of Guide : _____

Disclaimer :
This is a computer generated copy and does not indicate that your data has been evaluated. This is the receipt that GTU has received a copy of the data that you have uploaded and submitted as your project work.

*Guide has to sign the certificate, Only if all above activities has been Completed.

L. J. Institute of Engineering & Technology

Ahmedabad

DECLARATION

I hereby declare that the Internship report submitted along with the Internship entitled **Office Inventory Management System** submitted in partial fulfillment for the degree of Bachelor of Engineering in **Computer Engineering** to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me at Aakash Informatics under the supervision of Mr. Jaimik Patel and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

	Name of the Student	Sign of Student
1	Patel Meshwa Nimeshkumar	

Acknowledgment

I wish to express our sincere gratitude to our External guide **Mr. Jaimik Patel** for continuously guiding me at the company and answering all my doubts with patience. I would also like to thank my Internal Guide **Prof. Munira Topia and** my HOD **Ms. Shruti Raval** helping me through my internship by giving us the necessary suggestions and advices along with their valuable co-ordination in completing this internship. At the end, we offer my regards and blessings to all of those who supported us in any respect during the completion of the project and to our college for providing a resources and materials.

Thank you.

Yours Sincerely,

Patel Meshwa (190320107072)

Abstract

Office supplies can be expensive, so keeping track of what your office has in stockand monitoring how quickly supplies are being used is really important. It is a taskinclude activity such as storing, managing inventory. Inventory management is done to save unnecessary expenses and avoid issues such as overstocking and low-on-stocks. Furthermore, you must know how much inventory you have left in stock.

That is why it is crucial to understand how much inventory your business will needwithout wasting any inventory. This software finds the stock level with the help of data. Inventory management software adds value to the organization in several ways such as it saves time, tracks inventory in an automated way, alerts when inventory goes below the defined stock level. Furthermore, it eliminates human error and can help in increasing the productivity of the organization and saving unnecessary expenses.

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

1 **SDLC - System Development Life Cycle**

2 **SRS - Software Requirement Specification**

3 **SQL - Structured Query Language**

4 **RDBMS - Relational Database Management System**

5 **MVC - Model View Controller**

TABLE OF CONTENT

1.0 OVERVIEW OF THE COMPANY

1.1 OVERVIEW OF THE COMPANY

We are passionate about developing innovative software solutions - to address business challenges and market opportunities. We work with our customers as their development partner end-to end services for development partner and provide end-to-end services for development of Enterprise web Solutions, Software Products, Cloud Solutions and BI & Analytics Solutions. For over 21 years, we have been assisting our customers accelerate growth, drive efficiencies, and improve bottom -lines.

1.2 HISTORY

Aakash Informatics is established 21 years ago by the intellectuals to provide such software solutions that are functional, reliable, maintainable and cost-friendly to our existing and growing client and customer base. To consistently cater to their growing needs for an optimal solution, ensuring excellent support and service platform to give a hassle-free experience in achieving their dreams.

1.3 DIFFERENT SCOPE OF WORK

We develop custom enterprise solutions that support mission-critical business processes and integrate seamlessly within the corporate environment. Our robust development processes ensure secure, reliable and cloud-ready enterprise solutions that provide sustainable value to our customers.

1.4 COMPANY VISION

To be a leader in providing world class, customer focused, quality drive IT services to financial services companies and SMEs (small and medium enterprises).

1.5 COMPANY VALUES

- **Transparency:** Exhibit Honesty & Integrity at every step of the way.
- **Accountable:** Being responsible and expected to take Ownership & be Accountable.
- **Expertise:** Acquire Knowledge & Continue to Innovate.
- **Professional:** Always be Professional & Energetic.
- **Meritocracy:** Professional growth, development and rewards based on performance.
- **Exemplary Customer Service:** Put customer interests before ours.

2.0 OVERVIEW OF DIFFERENT DEPARTMENT

2.1 IT INCLUDES THE DETAILS ABOUT THE WORK BEING CARRIED OUT IN EACH DEPARTMENT.

At our company we follow the complete method of Software Engineering process. All the methods and steps are completely of Agile methodology and steps. It will helps our organization to complete the task and project in the given time and months. We used to follow the software development life cycle process for the project we are working on and when we need some other task, we used to involve more number of employees.

Under our enterprise product engineering services we offer product lifecycle management, product enhancement, legacy transformation, product testing and much more. We at ConvergeSoft understand the intellectual property rights and hence have strict information security mechanism, IP process and security audits.

2.2 LIST THE TECHNICAL SPECIFICATIONS OF MAJOR EQUIPMENT USED IN EACH DEPARTMENT.

- .Net Framework
- Angular
- SalesForce
- SQL
- C Sharp
- Github
- Postgres

2.3 PREPARE SCHEMATIC LAYOUT WHICH SHOWS THE SEQUENCE OF OPERATION FOR MANUFACTURING OF END PRODUCT.

- **Strategy :**
  - Sketching the idea
  - Developing a Strategy
  - Requirement Gathering
  - Business Analysis
- **Design :**
  - Clear wireframes and prototypes
  - Building the design of Application
  - Adjusting to user requirements
  - Design research and development
- **Development :**
  - Defining the back-end
  - Testing the Prototype
  - Continue with development
  - Manual Testing

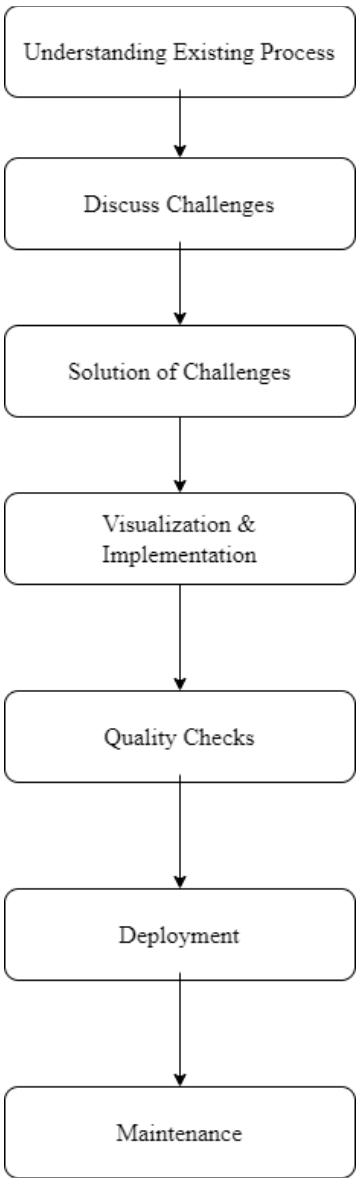


Fig 2.1 Schematic Layout

2.4 EXPLAIN IN DETAILS ABOUT EACH STAGE OF PRODUCTION

1. Planning

Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibilitystudy is to define the various technical approaches that can be followed to implement theproject successfully with minimum risks.

2. Requirement analysis

Requirement analysis is the most important and fundamental stage in SDLC. It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry. This information is thenused to plan the basic project approach and to conduct product feasibility study in the economical, operational and technical areas.

3. Designing

In this third phase, the system and software design documents are prepared as per therequirement specification document. This helps define overall system architecture.

This design phase serves as input for the next phase of the model.There are two kinds of design documents developed in this phase:

High-Level Design (HLD)

- Brief description and name of each module.
- An outline about the functionality of every module.
- Interface relationship and dependencies between modules.
- Database tables identified along with their key elements.
- Complete architecture diagrams along with technology.

Low-Level Design (LLD)

- Functional logic of the modules

- Database tables, which include type and size
- Complete detail of the interface
- Addresses all types of dependency issues
- Listing of error messages
- Complete input and outputs for every module

4. Implementation / coding

Once the system design phase is over, the next phase is coding. In this phase, developersstart build the entire system by writing code using the chosen programming language. Inthe coding phase, tasks are divided into units or modules and assigned to the various developers. It is the longest phase of the Software Development Life Cycle process.

In this phase, Developer needs to follow certain predefined coding guidelines. They alsoneed to use programming tools like compiler, interpreters, debugger to generate and implement the code.

5. Testing

Once the software is complete, and it is deployed in the testing environment. The testing team starts testing the functionality of the entire system. This is done to verify that the entire application works according to the customer requirement.

6. Deployment

Once the software testing phase is over and no bugs or errors left in the system then the final deployment process starts. Based on the feedback given by the project manager, thefinal software is released and checked for deployment issues if any.

7. Maintenance

Once the system is deployed, and customers start using the developed system, following3 activities occur

- Bug fixing – bugs are reported because of some scenarios which are not tested atall
- Upgrade – Upgrading the application to the newer versions of the Software
- Enhancement – Adding some new features into the existing software

The main focus of this SDLC phase is to ensure that needs continue to be met and that the system continues to perform as per the specification mentioned in the first phase.

3.0 INTRODUCTION TO INTERNSHIP

3.1 INTERNSHIP SUMMARY

- OIMS(Office Inventory Management System) is quick and free software that helps you to manage your office inventory by replacing the traditional methods of manually handling office inventory by a logbook or by an excel sheet program.
- Mainly it is used for admin. Admin can manage history of the product and also generate the reports.

3.2 PURPOSE

- The Inventory management is done to save unnecessary expenses and avoid issues such as overstocking and low-on-stocks.
- Inventory management software adds value to the organization in several ways such as it saves time, tracks inventory in an automated way, alerts when inventory goes below the defined stock level.

3.3 OBJECTIVE

- OIMS is faster and easier to manage compare to traditional methods.
- Provides authentication so only granted users can access the data.
- Manage the data remotely from anywhere with internet.
- Produces graphs to interpret the data easily.
- Generates summarized reports which helps in decision making.

3.4 SCOPE

- The Office Inventory Management System is a web-based application that can be accessed throughout Internet.
- This system can be used for manage and keep the record of office inventory.
- Admin can Assigning laptops to the Employees and tracking the record. There are features like manage history and display a chart of product condition.

3.5 TECHNOLOGY REVIEW

Front End: HTML, CSS, JAVASCRIPT, BOOTSTRAP

Back End: ASP .NET MVC

Database: SQL SERVER MANAGEMENT STUDIO

Front End:

- **HTML (Hyper Text markup Language)**

  It is used to define the structure of documents like headings, paragraphs, lists. HTML is being widely used to format web pages with the help of different tags available in HTML language.

- **CSS (Cascading Style Sheet)**

  It is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

- **JavaScript:**

  JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

- **Bootstrap:**

  Bootstrap is a framework to help you design websites faster and easier. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels, etc. It also gives you support for JavaScript plugins.

Back End:

- **ASP .NET MVC:**

- The Model-View-Controller (MVC) architectural pattern separates an application into three maincomponents: the model, the view, and the controller. The ASP.NET MVC framework provides an alternative to the ASP.NET Web Forms pattern for creating Web applications. The ASP.NET MVC framework is a lightweight, highly testable presentation framework that (as with Web Forms-based applications) is integrated with existing ASP.NET features, such as master pages and membership-based authentication.

Database:

- **SQL Server Management Studio:**

  SQL Server is a relational database management system, or RDBMS, developed and marketed by Microsoft, similar to other RDBMS software, SQL Server is built on top of SQL, a standard programming language for interacting with relational databases. SQL Server is tied to Transact-SQL, or T-SQL, the Microsoft's implementation of SQL that adds a set of proprietary programming constructs.

3.6 INTERNSHIP PLANNING

3.6.1 Internship Development Approach and Justification:

Admin specific requirement:

- To manage inventory easily.
- Generate Reports for products list , employee list and history of the product.
- Manage record of the inventory which is assign to the employees.

3.6.2 Internship Effort and Time, Cost Estimation:

- Like all estimation models for software, the COCOMO models require sizinginformation.
- Three different sizing options are available as part of the model hierarchy: object points,function points, and lines of source code.
- Cost required to develop project=effort*rs/month

Total line of code=4998
KLOC=4.998
We are using Organic project Type , Effort Estimation(E):

$=2.4\ (KLOC)^{1.05}\ PM$
=13PM

Duration Estimation (D):

$= 2.5(\text{effort})^{0.38}$ months
$=2.5(4.00)^{0.38}$ months
$=5.9$

Project Cost:

=effort*RS/month
=10*10000
=1,00,000 Rupee

3.6.3 Roles and Responsibilities:

This project has to done by individual so all responsibilities of project is on myself only.

1. Investigation
2. Requirement Analysis
3. DB Design
4. Coding
5. Testing

3.6.4 Group Dependencies:

There was no group, I have worked individually.

3.7 INTERNSHIP SCHEDULING (GANTT CHART)

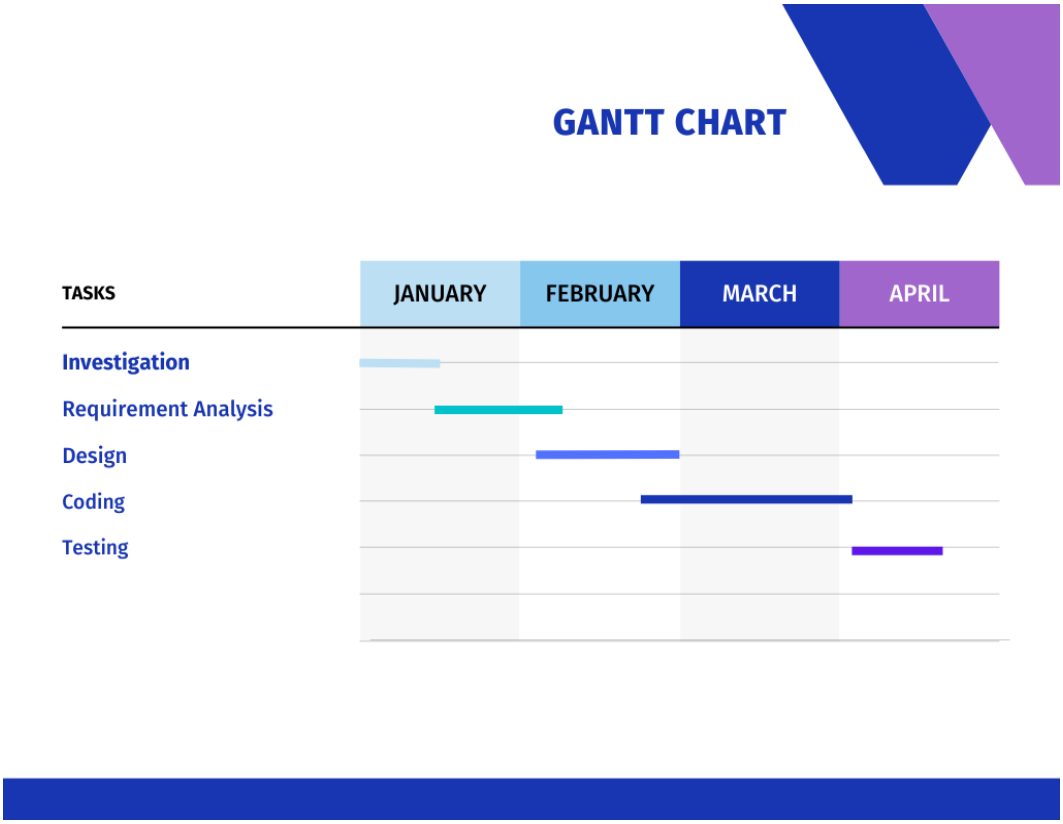


Fig 3.1 Project Plan

4.0 SYSTEM ANALYSIS

4.1 STUDY OF CURRENT SYSTEM

- The Project Office Inventory Management System is a complete web based application designed on ASP.NET technology using visual studio software.
- The aim of the project is to develop office inventory management system model software in which all the information regarding the stock of the organization will be presented.
- It is an internet- bas ed web application which has admin component to managethe inventory and maintenance of the inventory system.
- OIMS (Office Inventory Management System) is quick and free software that helps you to manage your office inventory by replacing the traditional methods of manually handling office inventory by a logbook or by an excel sheet program.

4.2 PROBLEM AND WEAKNESSES OF CURRENT SYSTEM

Following are the weaknesses of current system:-

- After analyzing many existing inventory managements, we have how to obvious vision of the project to be developed.
- In traditional methods anyone with the access of computer or logbook can manipulate the data.
- Not a Proper Secure.
- It doesn't provide mobility.
- System Crash.
- Malicious Hacks.
- In traditional methods it's need formula to create graphs and reports.

4.3 REQUIREMENTS OF NEW SYSTEM

4.3.1 Functional Requirements:

1. This system is used to keep track of products.
2. It has the advantage of Preserving bug history by storing all of the products from the beginning to End.
3. Each product can have many versions for ease maintenance, and all of the product's users are kept in the database. It has the advantage of keeping people informed about faults and possible remedies.
4. It this system include the history manage functionality which is useful for the system admin.
5. It comes with a password-encrypted, completely authenticated system.
6. With significantly less money and effort, it is possible to keep track of a product's issue.
7. The most significant benefit of this system is the ability to keep log records, which are useful in identifying any problems and also include the contact us page so employee directly contact the system admin.

4.4 SYSTEM FEASIBILITY

4.4.1 Does the system contribute to the overall objectives of the organization?

- Yes, because this project is designed in a user-friendly manner, new admin maygrasp it in a matter of minutes, and the project system has automated the majorityof the manual activities. As a result, the system will improve the administrator's operating efficiency.
- Early engagement decreases the possibility of system conflict and, in general, raises the odds of a successful project.
- Because the planned approach was designed to assist alleviate the difficulties that people face. The new technology was deemed operationally

feasible in comparison to the previous manual system.

4.4.2 Can the system be implemented using the current technology and within the given cost and schedule constraints?

- Yes, the cost of building and executing a new system is weighed against the advantagesof having the new system in place in an attempt to determine economic feasibility. The economic basis for the new system is provided by this feasibility report to upper management.
- Automation may provide a variety of intangible benefits.
- increased customer happiness, higher product quality, better decision-making timelinessof information, accelerating activities, enhanced accuracy of operations, better documentation and record-keeping, faster retrieval of information, and improved staff morale are just a few examples.

4.4.3 Can the system be integrated with other systems which are already in place?

- Yes, it can be integrated with other systems after some modifications done in it.

4.5 ACTIVITY DIAGRAM

- Activity Diagram:

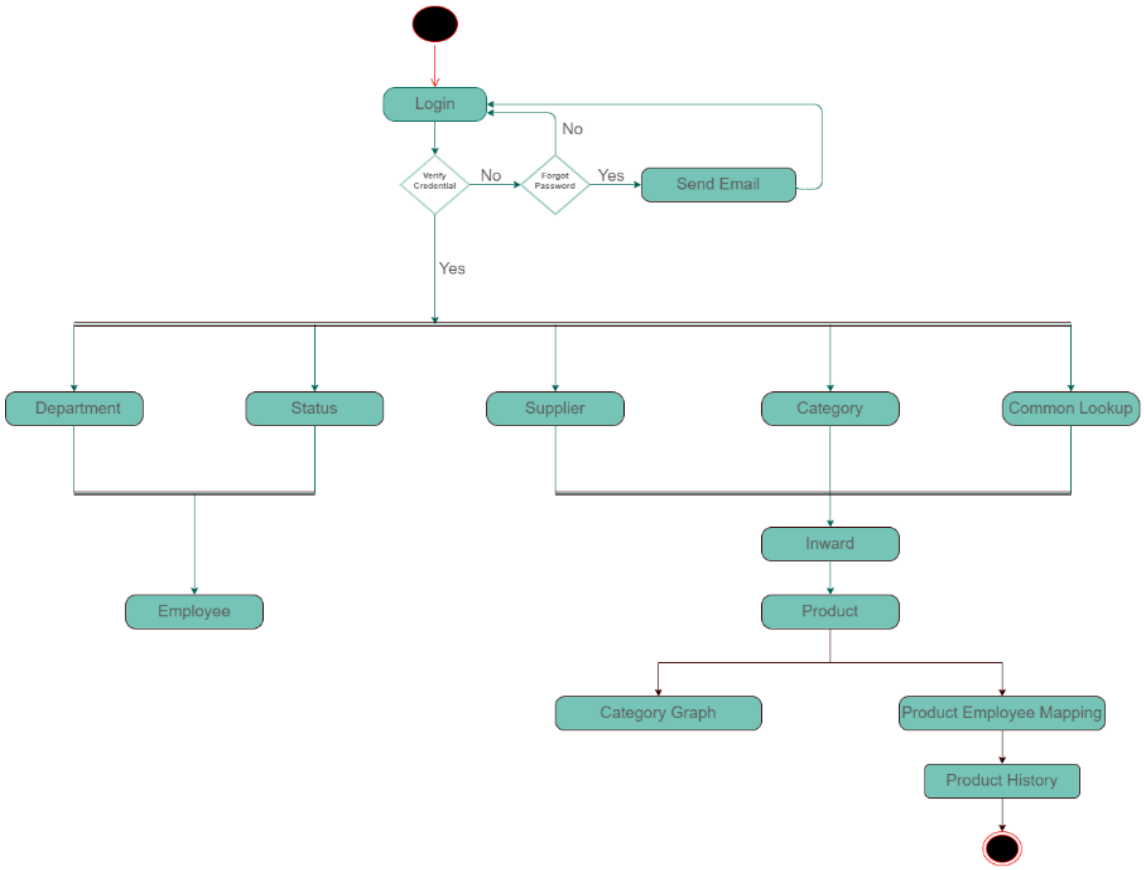


Fig 4.2 Activity Diagram

4.6 FEATURES OF NEW SYSTEM

Following are the features of new system / proposed system:-.

- Protection of Inventories
- To Ensure the Timely Availability
- Maintenance of Specified Products
- Generate reports
- Easy Maintenance
- Maintain the Product History

4.7 LIST MAIN MODULES OF NEW SYSTEM

- Login:- Authentication so only the authorized user can access.
- Change Password:- User can change the password.
- Forgot Password: User can recover password when they are forgot
- Product - This module will keep the track record of products like which employee has been assigned with this products and other fields like issue date, quantity etc.
- Employee: - This module will keep the record of employee details like department, products they have been assigned with and some other personal details.
- Reports: - It will provide all the product, assign product details etc. download in excel format.
- Assign Product: - This module will assign the products like laptop, keyboard, mouse to the employees.

4.8 SELECTION OF HARDWARE / SOFTWARE JUSTIFICATION

4.8.1 Software Characteristics

Designing frontend	:	HTML,CSS, BOOTSTRAP
Backend	:	ASP.NET MVC
Core language	:	C#

Framework	:	MVC
IDE	:	Visual Studio 2019
Database	:	SQL
Version control	:	Git

4.8.2 Hardware Characteristics

Processor	:	Intel i3 or up
RAM	:	1 GB
Hard disk	:	5 GB

4.9 USE-CASE DIAGRAM

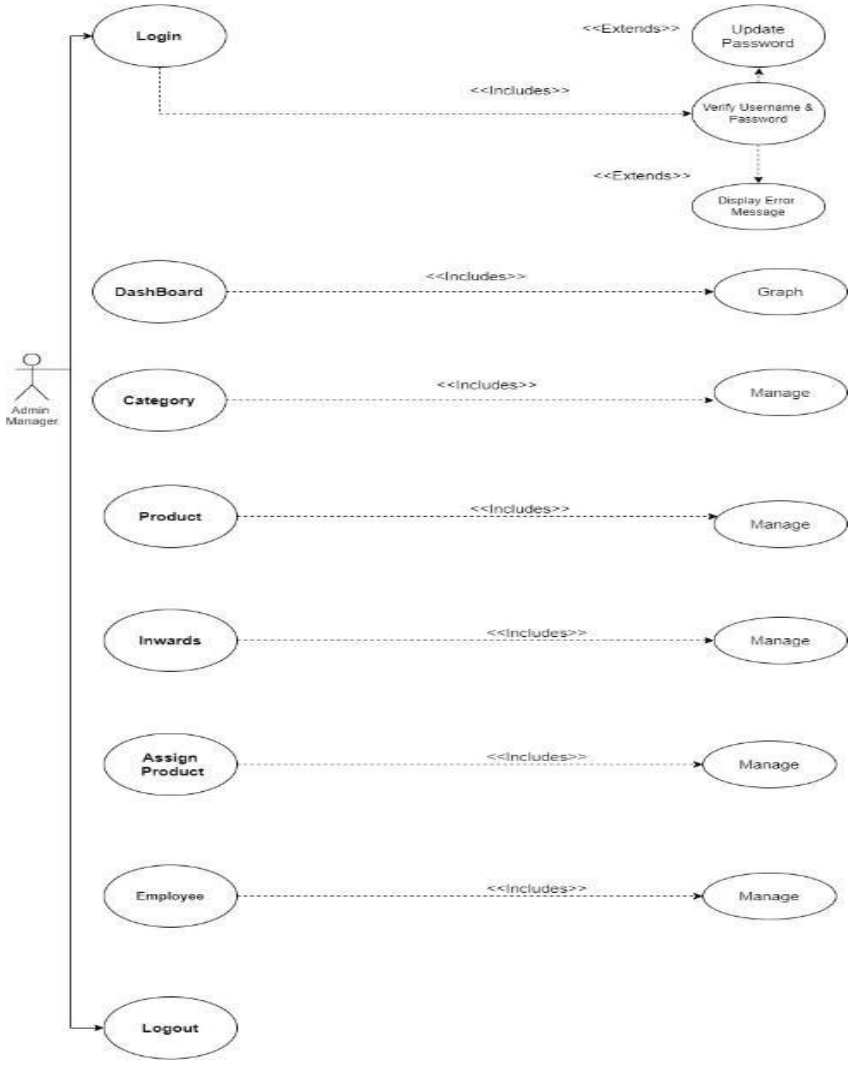


Fig 4.3 Use-Case Diagram

4.10 CLASS DIAGRAM

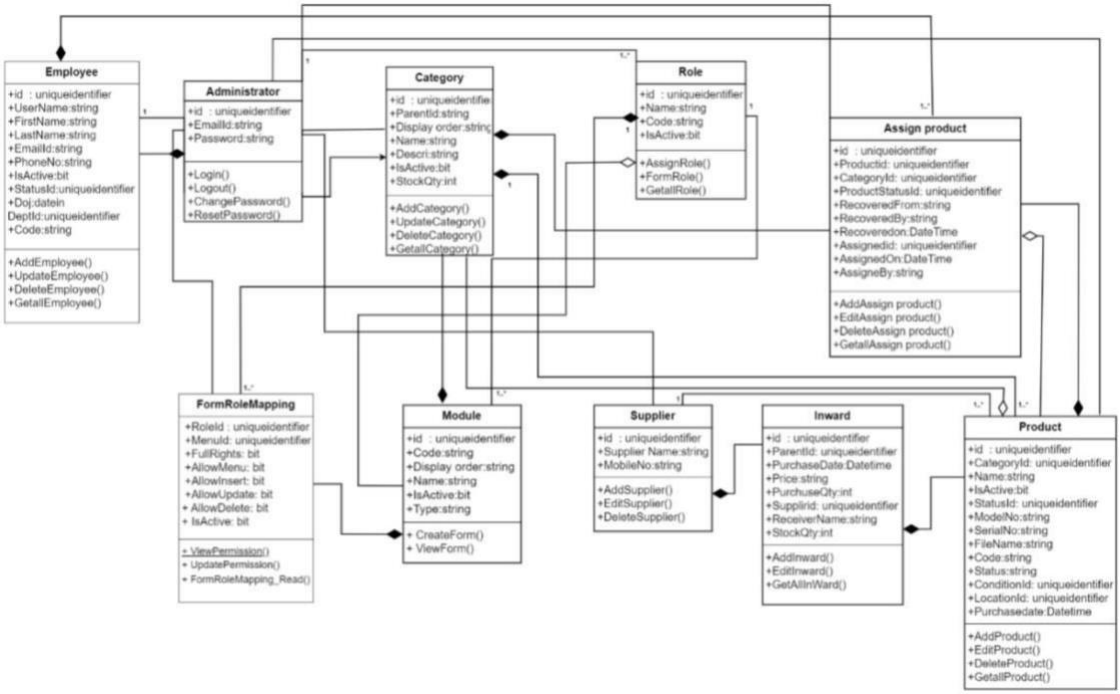


Fig 4.4 Class Diagram

4.11 State Diagram :

Fig 4.4 State Diagram

4.12 E-R Diagram:

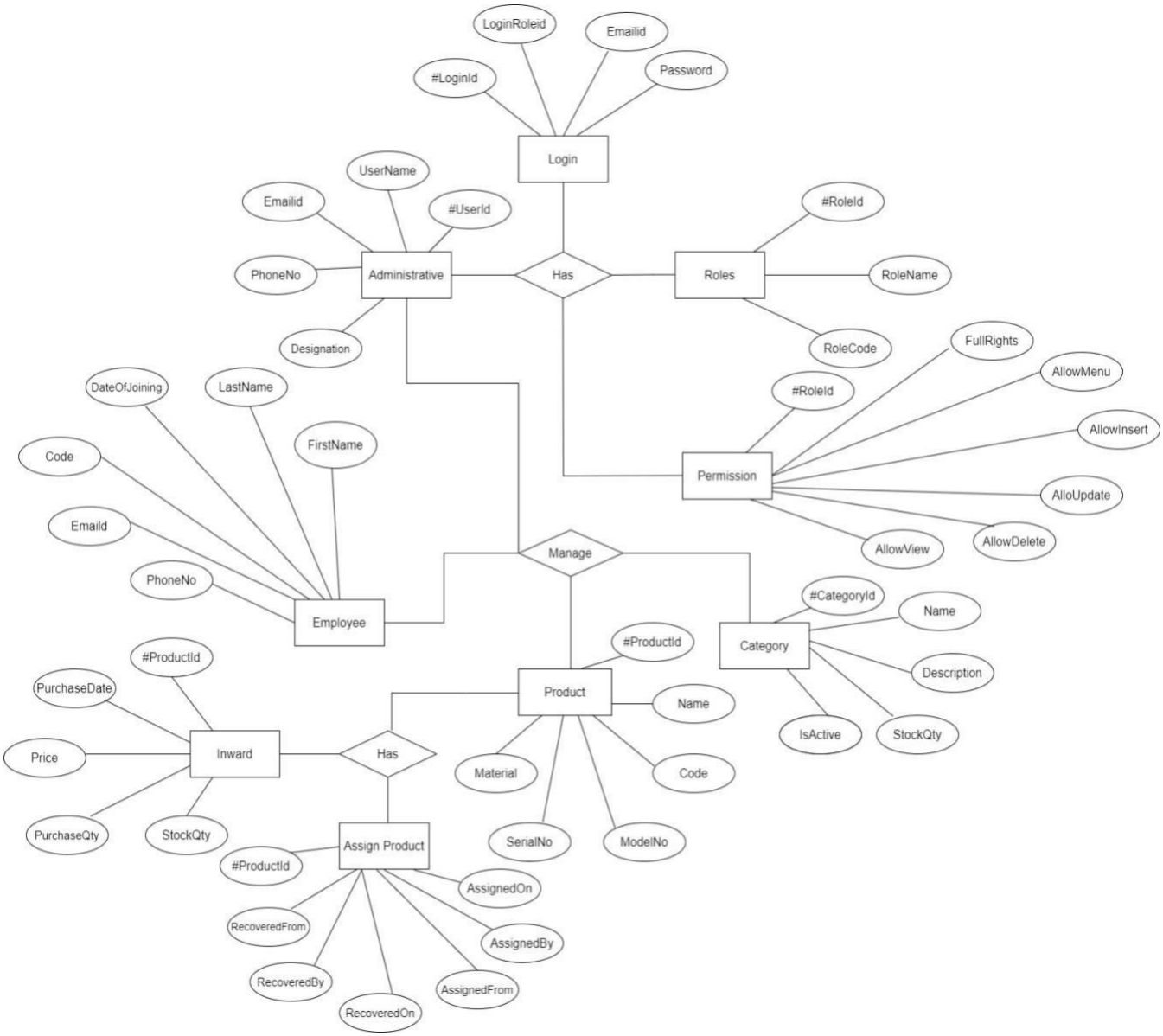


Fig 4.12 E-R Diagram

4.13 Sequence Diagram :

4.13.1 Login Sequence Diagram

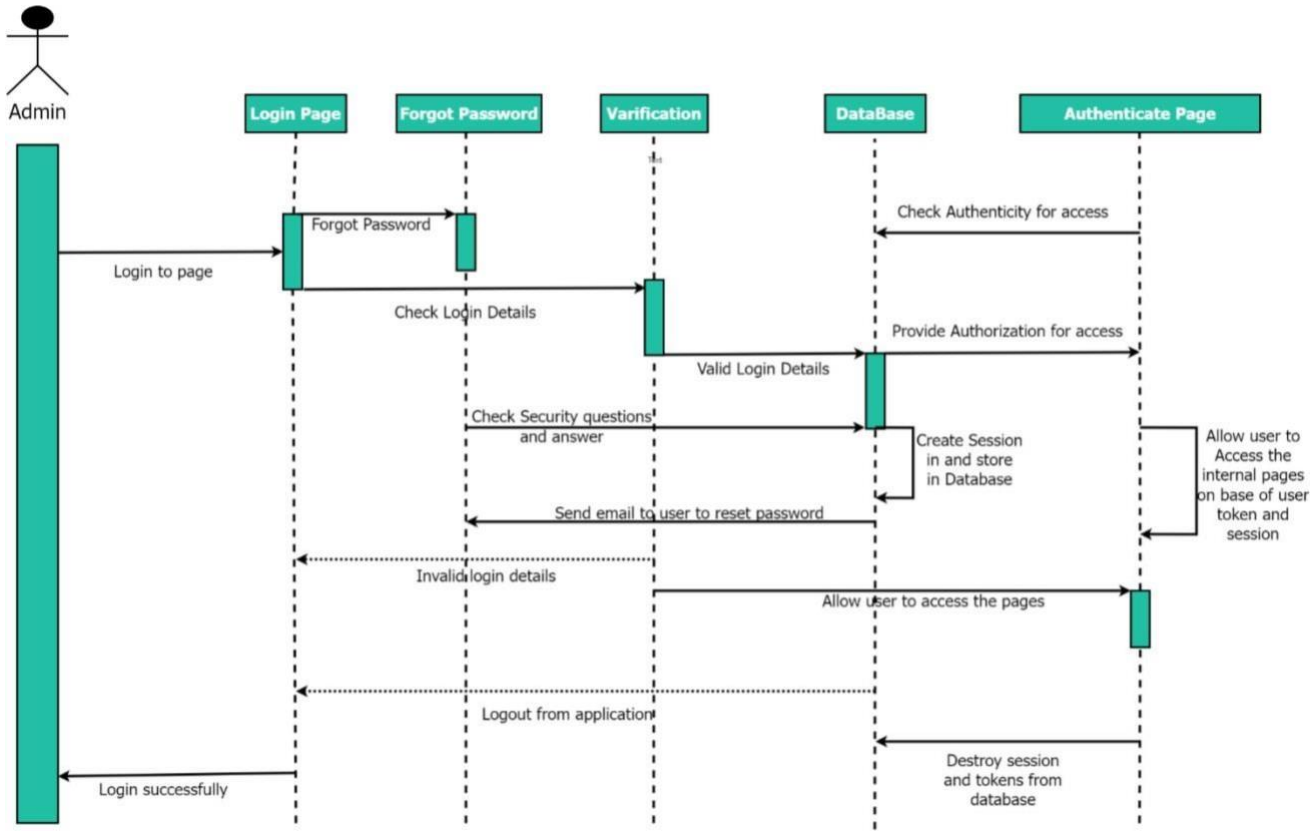


Fig 4.13.1 Login Sequence Diagram

4.13.2 System Sequence Diagram:

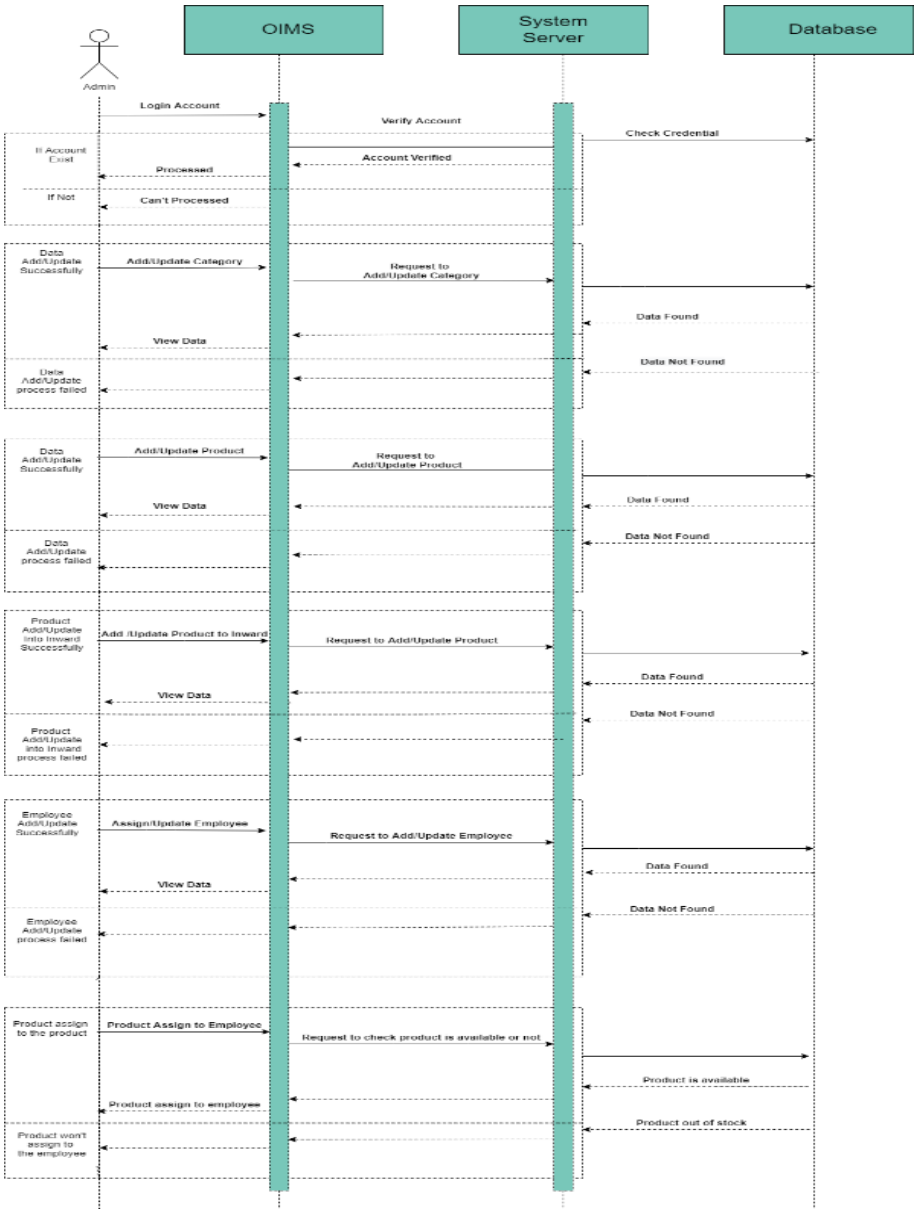


Fig 4.13.2 System Sequence Diagram

5.0 SYSTEM DESIGN

5.1 SYSTEM DESIGN

Systems design is the process of defining the architecture, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering.

- Architectural Design:-

  The architectural design of a system emphasizes the design of the systems architect ure that describes the structure, behavior and more views of that system and analysis.

- Logical Design:-

  The logical design of a system pertains to an abstract representation of the data flows, inputs and outputs of the system. This is often conducted via modeling, using an over-abstract (and sometimes graphical) model of the actual. system. In the context of systems, designs are included.

- Physical Design:-

  The physical design relates to the actual input and output processes of the system. This is explained in terms of how data is input into a system, how it is v erified/authenticated, how it is processed, and how it is displayed. In physical design, the following requirements about the system are decided.

  - Input requirement
  - Output requirements
  - Storage requirements
  - Processing requirements
  - System control and backup or recovery.

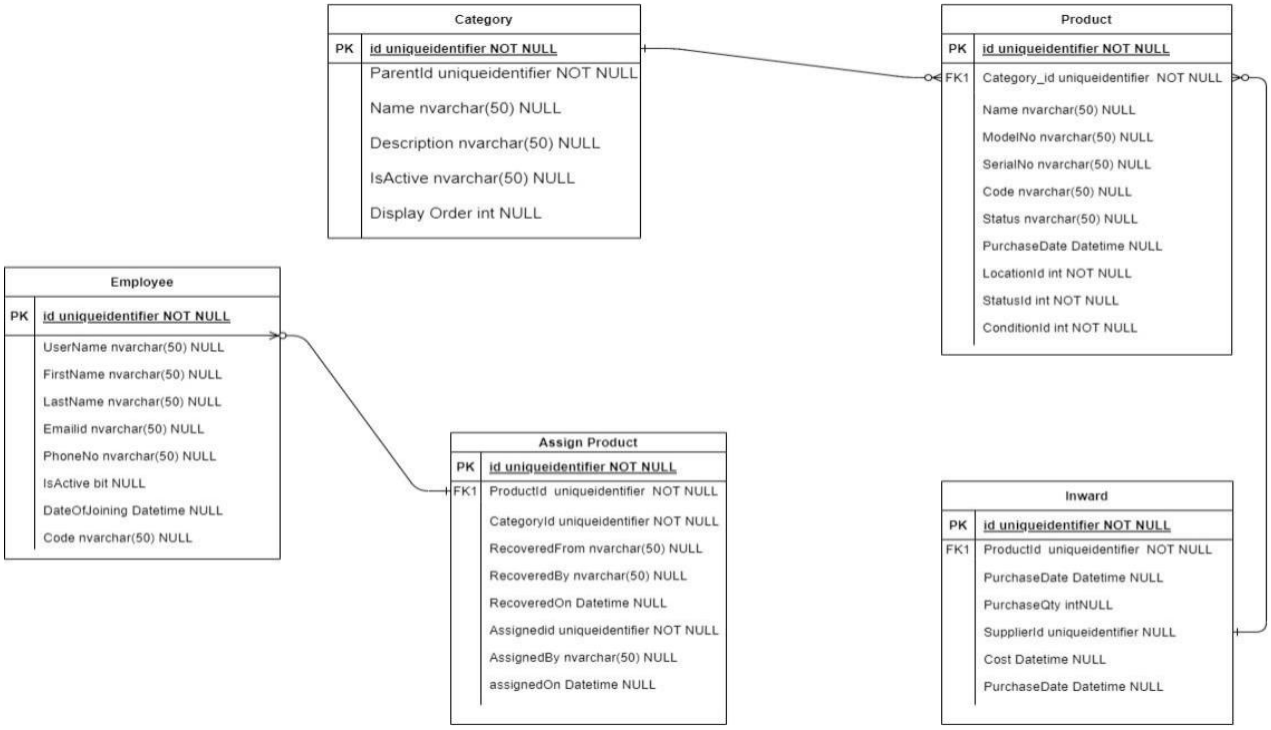
  User Interface Design is concerned with how users add information to the system and with how the system presents information back to them. Data Design is concerned with how the data is represented and stored within the system.

5.2 DATABASE DESIGN

The process of creating a thorough data model for a database is known as database design. This logical data model includes all of the logical and physicaldesign options, as well as physical storage characteristics, that are required to develop a design in a Data Definition Language, which can subsequently be used to establish a database. Each entity in a properly attributed data model has extensive characteristics.

The phrase database design can refer to a variety of aspects of a database system's general design. It's best to think of it as the logical design of the basicdata structures that are utilized to store the data. Tables and views are the tablesand views in the relational model.

Entities and connections in an object database correspond to object classes andnamed relationships. The phrase database design, on the other hand, can refer to the entire process of creating not just the fundamental data structures, but also the forms and queries that make up the total database application within the database management system (DBMS).



5.3 INPUT / OUTPUT AND INTERFACE DESIGN

5.3.1 Samples of Forms, Reports and Interface

5.3.2 Login:

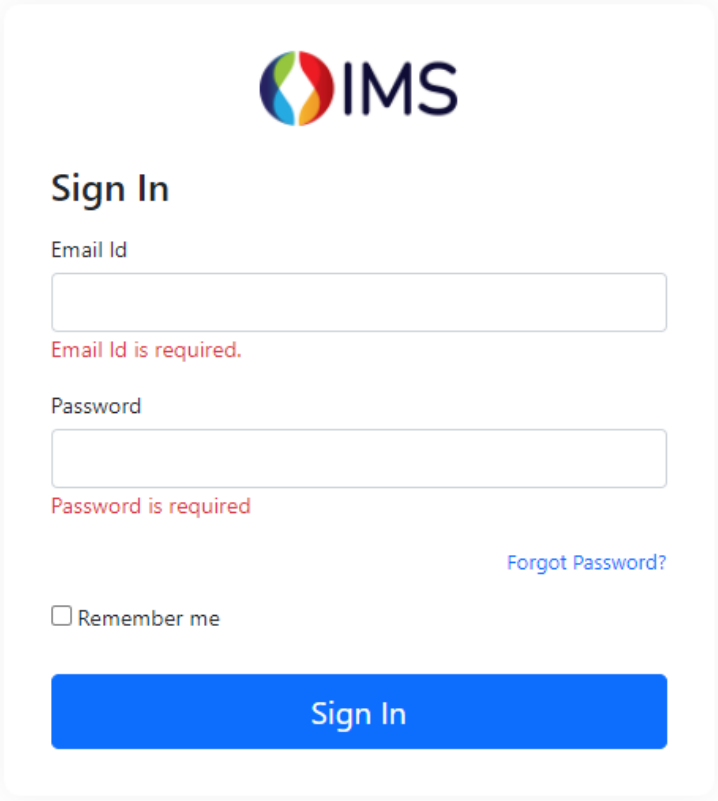


Fig:5.1 Login

➢ Home Page:

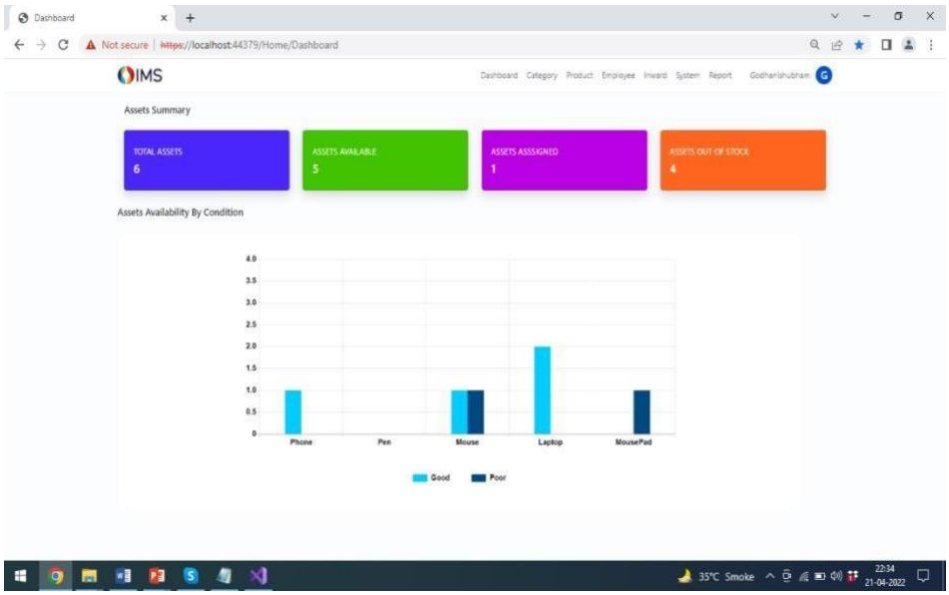
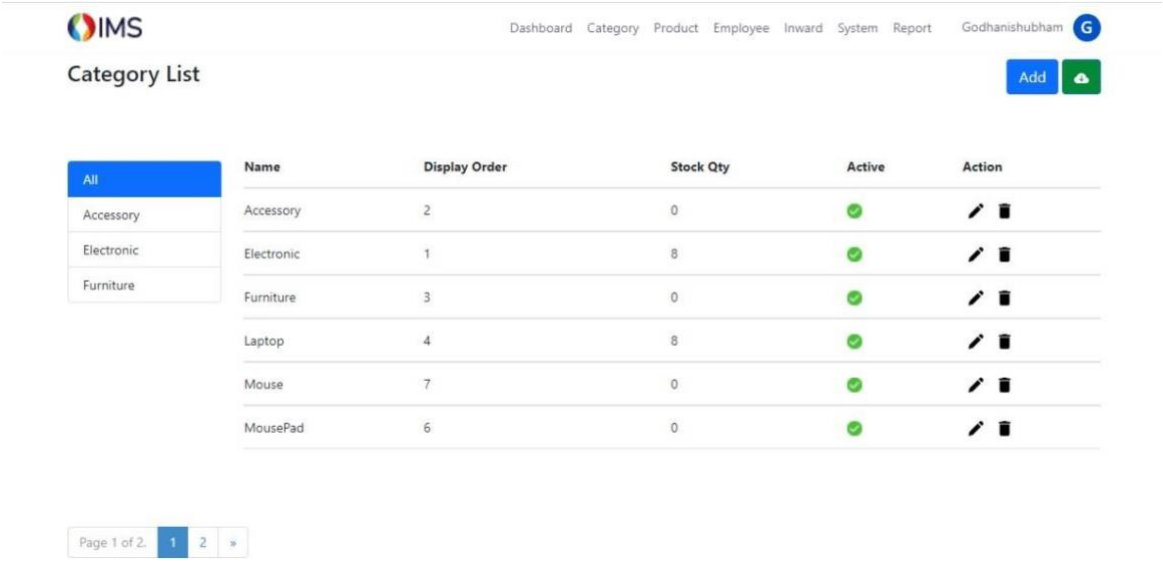


Fig:5.2 Home Page

➢ Category Page :

Fig 5.3 Category Page



➢ Product Page:

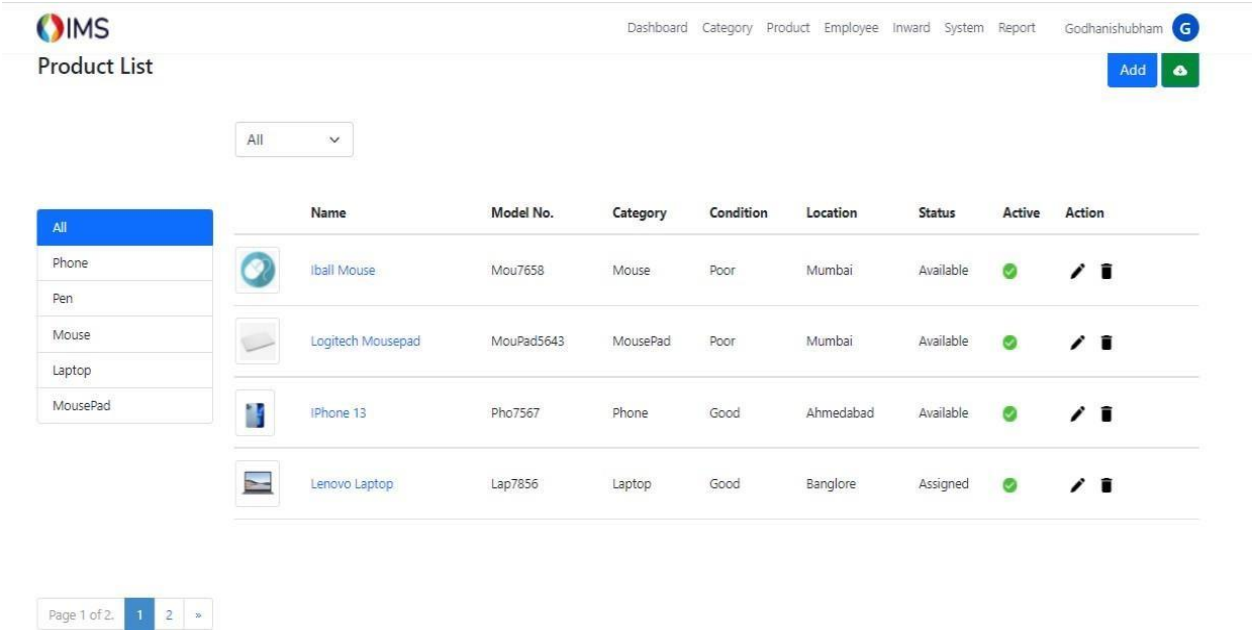


Fig 5.4 Product page

➢ Employee Detail Page:

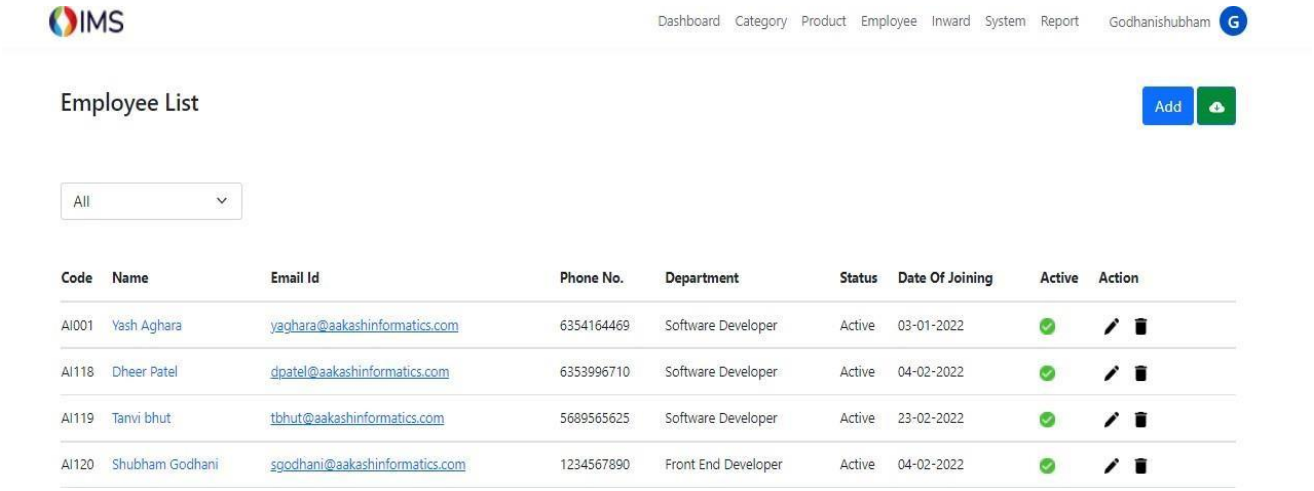


Fig 5.5 Employee List Page

- **Assign Product History**:

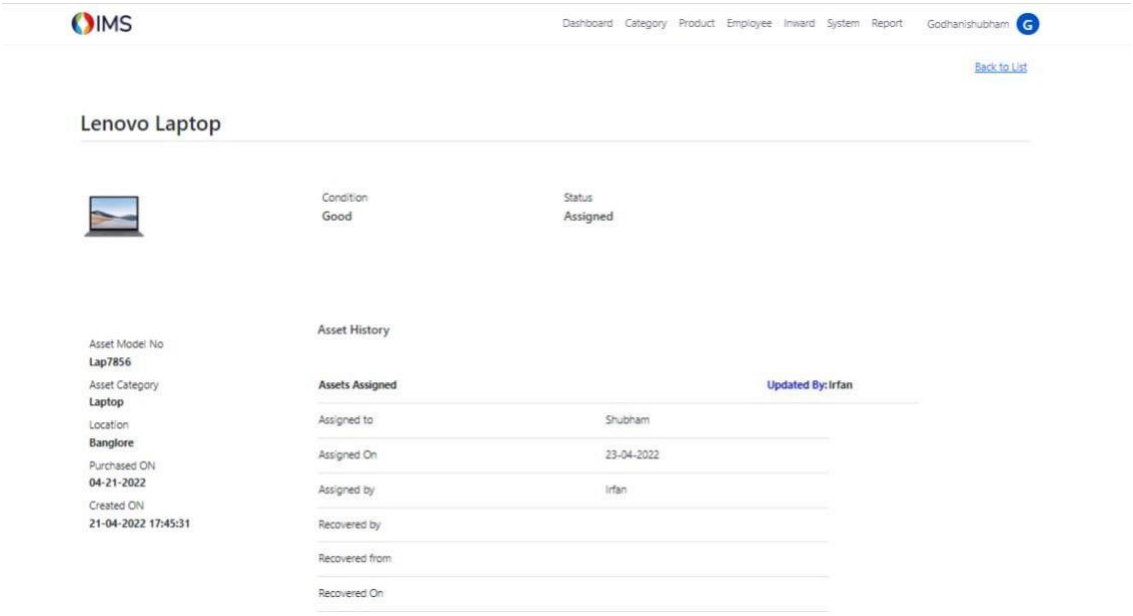


Fig 5.6 Assign Product History

- Manage Modules :

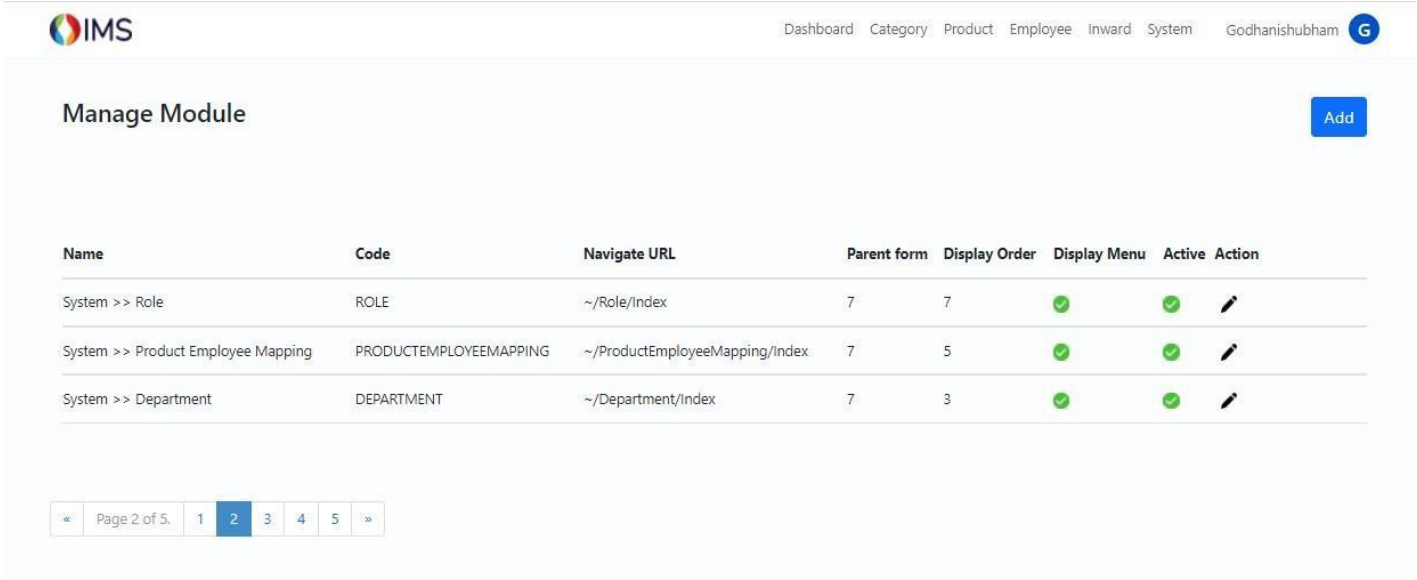


Fig 5.7 Manage Modules

➢ Role Module :

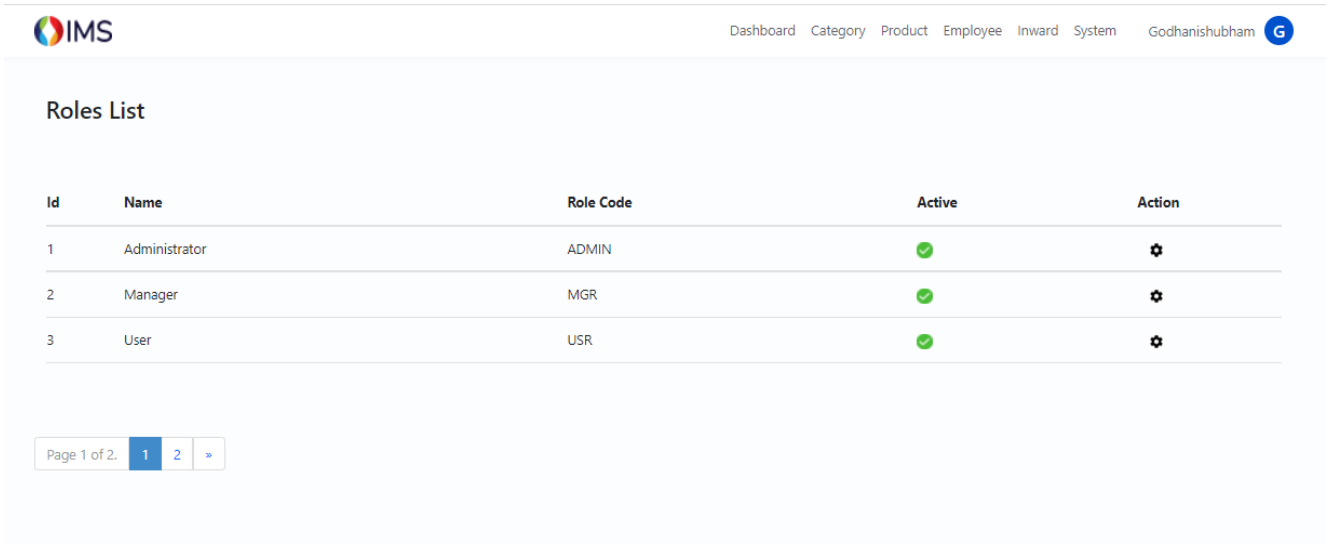


Fig 5.8 Role Module

➢ Assign Role :

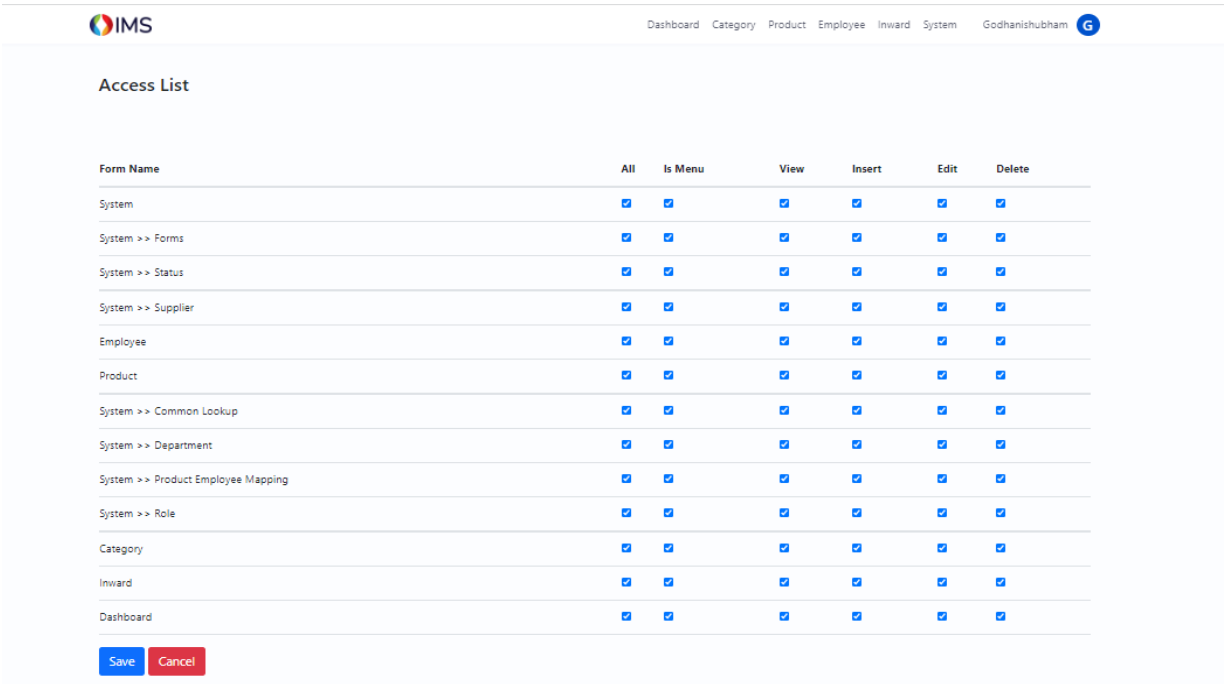


Fig 5.9 Assign role

- **Change Password:**

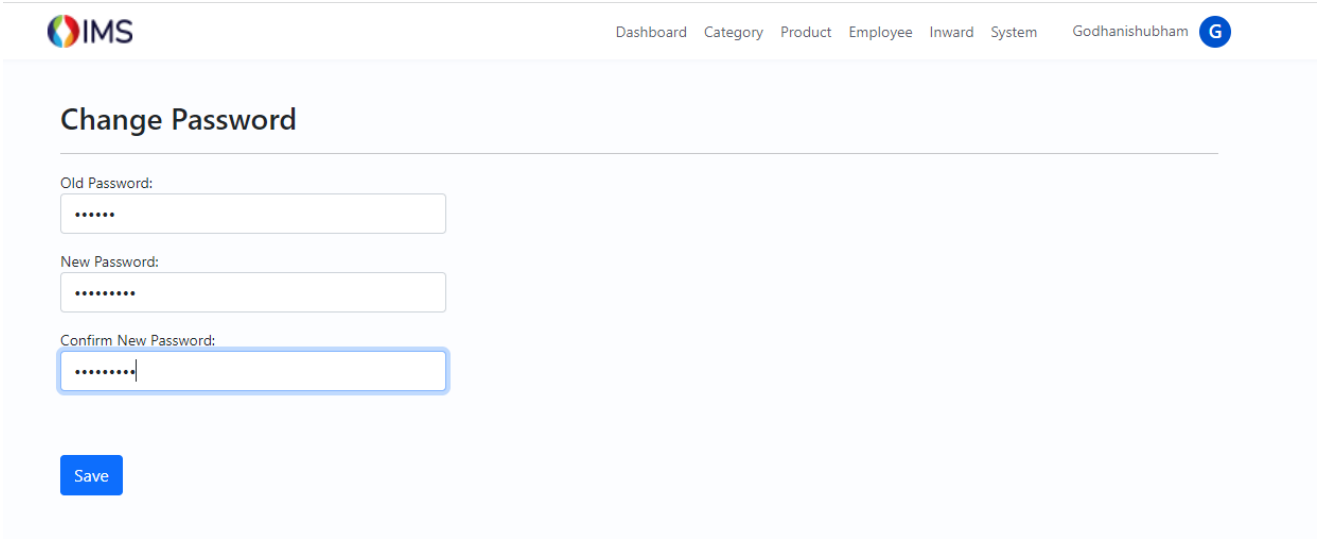


Fig 5.10 Change Password

- **Forgot Password :**

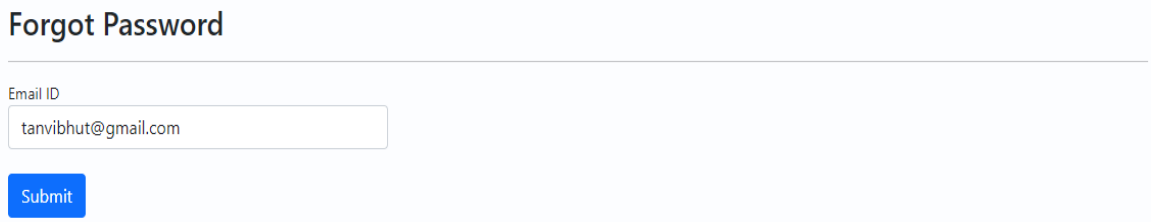


Fig 5.11 Forgot Password

- **Reports:**

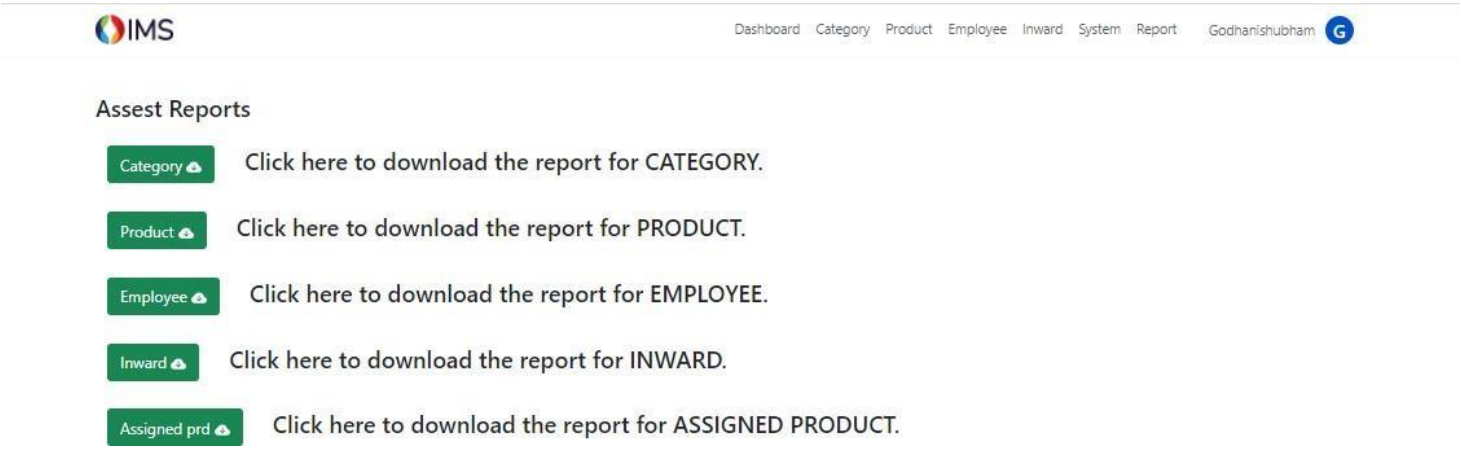


Fig 5.12 Reports

- **Contact Us:**

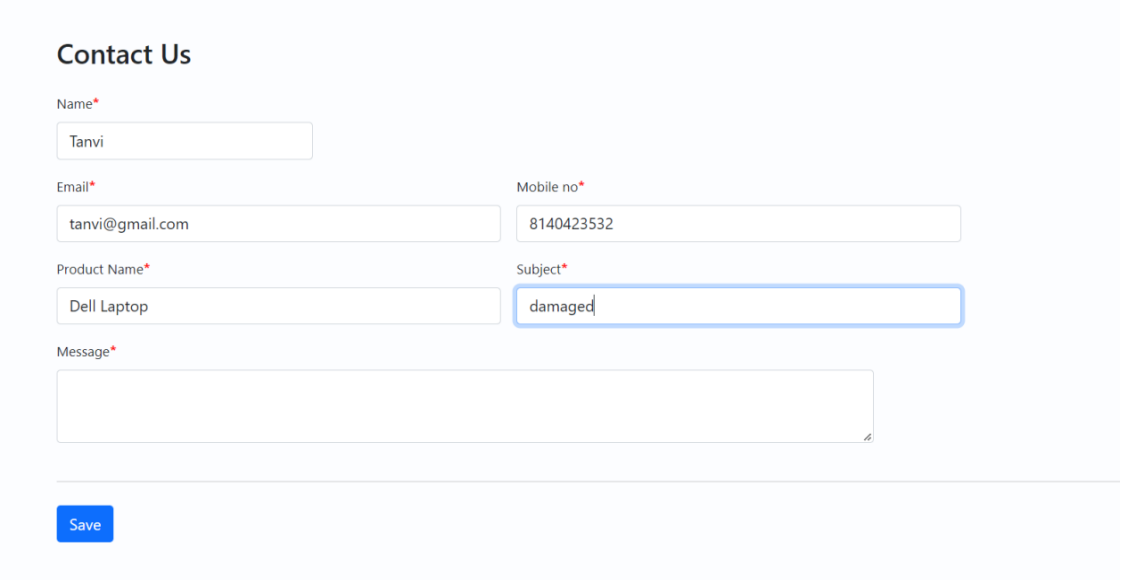
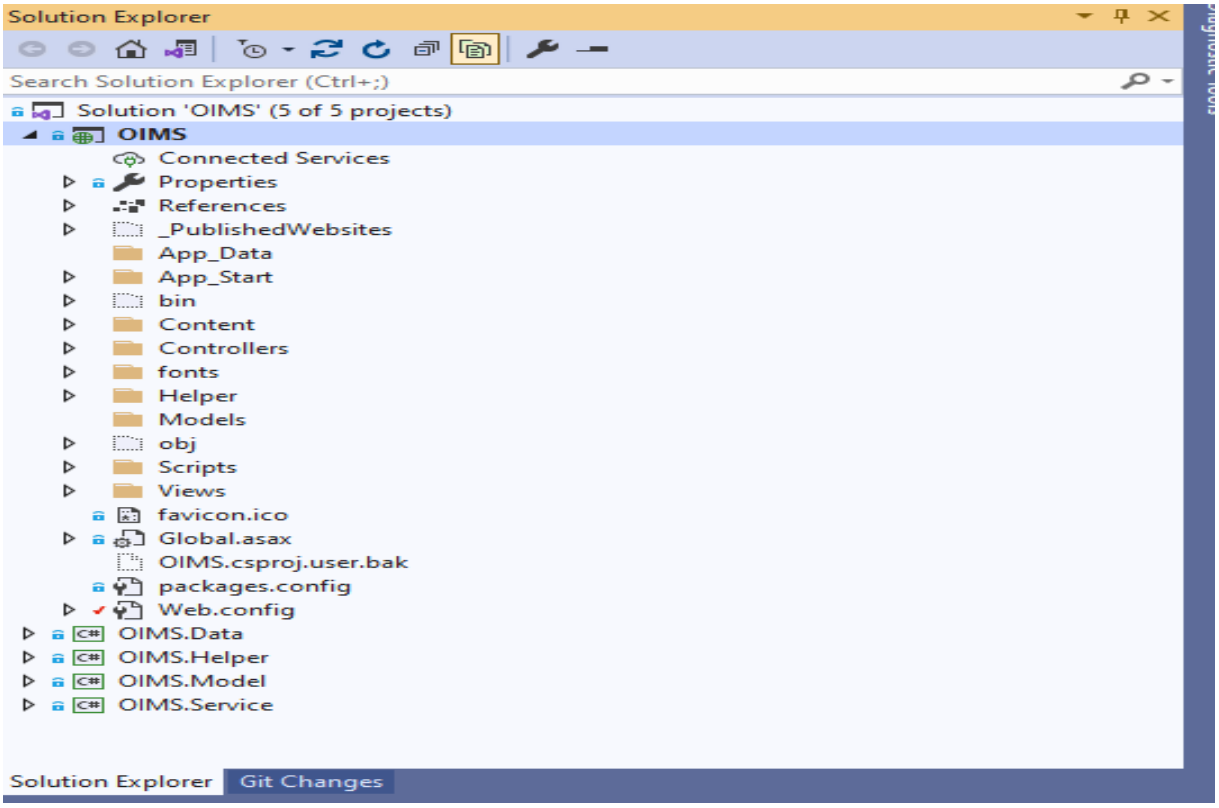


Fig 5.13 Contact us

➢ Implementation Code :




```
{
    [AllowAnonymous]
    0 references | shubham6845, 59 days ago | 3 authors, 5 changes
    public ActionResult Login()
    {
        return View();
    }

    [AllowAnonymous]
    [HttpPost]
    [ValidateAntiForgeryToken]
    0 references | DevSonuPatidar, 3 days ago | 6 authors, 7 changes
    public ActionResult Login(LoginModel login, string ReturnUrl = "")
    {
        string message = "";
        if (ModelState.IsValid)
        {
            using (OIMSEntities dc = new OIMSEntities())
            {
                var v = dc.Users.Where(a => a.EmailId == login.EmailId).FirstOrDefault();
                if (v != null)
                {
                    SessionHelper.EmailId = login.EmailId;
                    string returnUrl = Request.QueryString["ReturnUrl"];
                    if (!v.IsEmailVerified)
                    {
                        ViewBag.Message = "Please verify your email first";
                        return View();
                    }
                    if (string.Compare(Crypto.Hash(login.Password), v.Password) == 0)
                    {
                        int timeout = login.RememberMe ? 525600 : 60; // 525600 min = 1 year
                        var ticket = new FormsAuthenticationTicket(login.EmailId, login.RememberMe, timeout);
                        string encrypted = FormsAuthentication.Encrypt(ticket);
                        var cookie = new HttpCookie(FormsAuthentication.FormsCookieName, encrypted);
                        cookie.Expires = DateTime.Now.AddMinutes(timeout);
                        cookie.HttpOnly = true;
                        Response.Cookies.Add(cookie);

                        if (returnUrl == null)
                        {
                            return RedirectToAction("Dashboard", "Home");
                        }
```

```
73          }
```

```
@{
    ViewBag.Title = "Dashboard";
}

<!-- Begin Page Content -->
<div class="container-fluid">

    <!-- Page Heading -->
    <div class="d-sm-flex align-items-center justify-content-between mb-4">
        <h1 class="h6 mb-0 text-gray-800" style="margin-top:20px !important;">Assets Summary</h1>
    </div>

    <div class="row">
        <!-- Total Assets -->
        <div class="col-x1-3 col-lg-6 mb-4 graph-cursor">
            <div class="card border-left-primary shadow h-100 py-2" style=" background: #4a26fd; border-radius: 5px;" onclick="location.href='/ProductCategory/Index'">
                <div class="card-body">
                    <div class="row no-gutters align-items-center">
                        <div class="col mr-2">
                            <div class="text-xs font-weight-bold text-success text-uppercase mb-1" style="color: white !important;">
                                Total Assets
                            </div>
                            <div class="h5 mb-0 font-weight-bold text-gray-800">@ViewBag.TotalAssetsDashboard</div>
                        </div>
                        <div class="col-auto">
                            <i class="fas fa-calendar fa-2x text-gray-300"></i>
                        </div>
                    </div>
                </div>
            </div>
        </div>

        <!-- Assets Available -->
        <div class="col-x1-3 col-md-6 mb-4 graph-cursor">
            <div class="card border-left-success shadow h-100 py-2" style="background: #41c300; border-radius: 5px " onclick="location.href='/ProductCategory/GetAssets'">
                <div class="card-body">
                    <div class="row no-gutters align-items-center">
                        <div class="col mr-2">
                            <div class="text-xs font-weight-bold text-success text-uppercase mb-1" style="color: white !important;">
                                Assets Available
                            </div>
                            <div class="h5 mb-0 font-weight-bold text-gray-800">@ViewBag.AssetsAvailableDashboard</div>
                        </div>
                        <div class="col-auto">
                            <i class="fas fa-dollar-sign fa-2x text-gray-300"></i>
                        </div>
                    </div>
                </div>
```

```
24          }
            0 references | sach1nmeena, 3 days ago | 3 authors, 5 changes
25          public ActionResult Dashboard()
26          {
```

```
5   }
6
7   @using PagedList.Mvc;
8   @using PagedList;
9   <link href="~/Content/PagedList.css" rel="stylesheet" />
10  <section class="section">
11      <div class="container">
12          <h4 class="h4 mb-4">Product Assigned</h4>
13
14          <label id="alertid" class="bg-success text-white"></label>
15          <div class="table-responsive">
16              <table class="table table-sm">
17
18                  <thead>
19                      <tr>
20                          <th>
21                              @Html.DisplayNameFor(model => model.First().Product)
22                          </th>
23                          <th>
24                              @Html.DisplayNameFor(model => model.First().AssignedTo)
25                          </th>
26                          <th>
27                              @Html.DisplayNameFor(model => model.First().Category)
28                          </th>
29                          <th>
30                              @Html.DisplayNameFor(model => model.First().ProductStatus)
31                          </th>
32                          <th>
33                              @Html.DisplayNameFor(model => model.First().AssignedOn)
34                          </th>
35                          <th>
36                              @Html.DisplayNameFor(model => model.First().AssignedBy)
```

5.3.2 Security Features

- In Admin module, only the person having admin role can login into the web application.
- Admin can manage the inventory and manage the history also.

6.0 IMPLEMENTATION

Planning is an essential aspect of any successful project. However, it can be difficult to turn goals and strategy into tangible action, and, therefore, projects of all sizes and across all industries have a high tendency to fail. Implementation planning can reduce this chance of failure by helping turn strategy into action.

6.1 IMPLEMENTATION PLATFORM

The platform used was Microsoft's Asp.net Core framework which is an open source subset of .net framework. A widely used web application framework, .net, provides a programming model for development of console or web applications. It allows developers to build websites using programming languages like C# or VB.net which has an object oriented approach. On the server side, web applications built using the .NET framework or its subsets are required to run on Microsoft's Internet Information Services (IIS). In this project, the language opted to develop was C# due to it's rich OOP (Object Oriented Programming) approach. Internet Information Services (IIS) is used to serve HTML pages.

The advantages of Asp.net Core which made it a preferable tool for this project are discussed below:

- It is Open source.
- Easy to build cross platform applications on Windows, Linux, Mac.
- Web API(Application Programming Interface), MVC and Asp.Net Web pages are all supported.

- Design Pattern:

The design pattern used in this project was Model-View-Controller (MVC). MVC is a design paradigm in which the user interface, data, and application functionality are all separated as view, model and controller respectively. Requests are passed to a Controller, which works with the Model using the MVC pattern for websites to perform actions and acquire data. The Controller decides which View to show, and the Model receives it. The View creates the final page using the Model's data. This project implements this

architecture to achieve rapid development of the application.

The figure represents MVC Architecture.

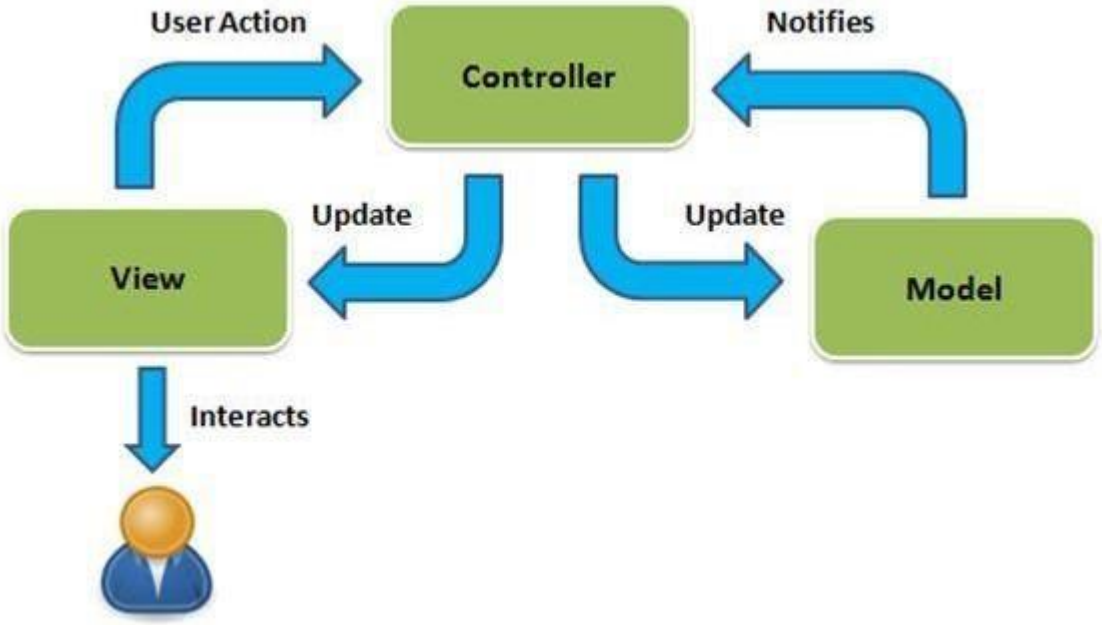


Fig 6.1 MVC Architecture

6.2 MODULES SPECIFICATION(S)

- **Admin module**: -

  This module is also made by .Net MVC technology as backend coding with html CSS and bootstrap in designing. It is made for the interaction of users who can manage the system like managing products and users.

6.3 OUTCOMES

The outcomes are quite similar which was expected when the idea was planned to implement this project.

- Some features / modules are to be added in the system to enhance the functioning of the system.

- The system basically at admin only so admin can easily maintain the office inventory and generate the reports by only one click.

6.4 RESULT ANALYSIS

In any customer projects with more lead time (at least 3 months), RA plays an important role. Results Analysis is to valuate ongoing unfinished activities, in projects during period-end. If you look at profit and loss of such ongoing unfinished activities, you will see costs only and therefore your P&L shows loss. If you look at this in the period-end, the project's ongoing activities will have an unfavorable effect on the company's results. Accurate, timely recognition of project profitability, for each project, for every period end, is very important in any company.

The following are the parameters used to calculate:

- Planned Revenue
- Actual Revenue
- Planned Costs
- Actual Costs

Output parameters:

- Calculated Costs (Cost of Sales)
- Calculated Revenue
- Revenue Surplus (Reserves for unrealized costs). (In SD Revenue Recognition term this is called Deferred Revenue)

7.0 TESTING

7.1 TESTING PLAN / STRATEGY

Testing Plan:

- The testing strategy followed by the company is unique in its own way. The developer first considers the UNIT Testing. Then the Integration testing is conducted to check the over functionality of the system. Then the Validation Testing is performed once the whole project is done. Alpha and Betatesting are done once by the testing team and the clients respectively. Then the over System testing is done and after that Acceptance testing is done.

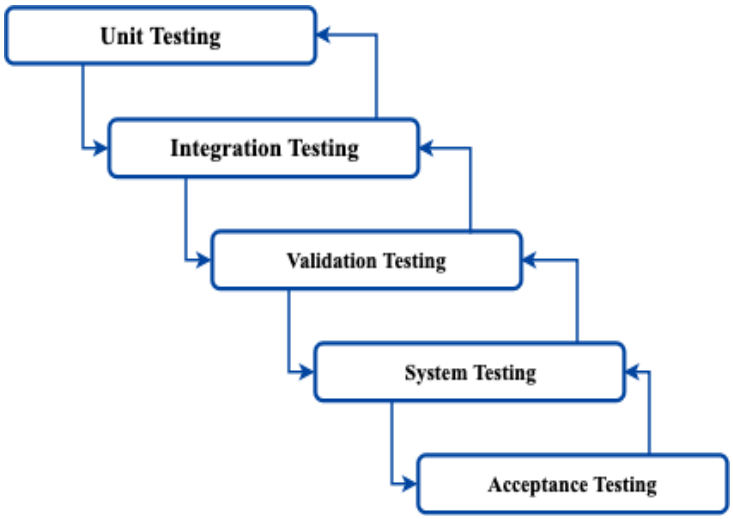


Fig 7.1 Testing Plan

- **Unit Testing**

  Unit testing is a software development procedure in which the smallest testable parts of an application, known as units, are examined individually for proper operation. Unit monitoring is mostly automated, but it can also be performed by hand. This testing mode is part of Extreme Programming (XP), a pragmatic software development process that takes a methodical approach to creating a product by means of continual testing and revision.

Only certain characteristics are tested in unit testing that are critical to the unit's performance. This allows developers to adjust the source code without worrying about how they could impact the units' or the program's overall functionality. When all of the units in a programme have been found to be operating in the most effective and error-free manner possible, the programme can be considered complete. Larger components of the program can be evaluated by means of integration testing.

- **Integration Testing**

Integration Testing is defined as a type of testing where software modules are integrated logically and tested as a group. A typical software project consists of multiple software modules, coded by different programmers. The purpose of this level of testing is to expose defects in the interaction between these software modules when they are integrated. Integration Testing focuses on checking data communication amongst these modules.

- **System Testing**

System Testing is a type of software testing that is performed on a complete integrated system to evaluate the compliance of the system with the corresponding requirements. In system testing, integration testing passed components are taken as input. The goal of integration testing is to detect any irregularity between the units that are integrated together. System testing detects defects within both the integrated units and the whole system. The result of system testing is the observed behavior of a component or a system when it is tested.

- **UI Testing**

UI testing, also known as GUI testing, is a technique for testing the features of any software that a user will interact with. This usually involves testing the visual components to ensure that they are meeting the outlined requirements - both in terms of functionality and performance. It involves testing all visual indicators and graphical icons,

including menus, radio buttons, text boxes, checkboxes, toolbars, colors, fonts, and more. UI testing is performed manually or with an automated testing tool. Regardless of the method used, the goal is to ensure all UI elements meet the requested specifications.

The main aspects checked in UI testing include:

- Visual Design
- Functionality
- Usability
- Performance

7.1.2 Testing Strategy:

The different testing methods mentioned above have been used to ensure that the project works as expected as per the requirements or not. Each testing method mentioned above has been performed to make sure that each scenario has been covered, the quality of the app is as expected and the working of the app is as per the requirements.

7.2 TESTING RESULT AND ANALYSIS

7.2.1 Login form Test Cases:

Test ID	Test Condition	Expected Output	Actual Output	Remarks
TC1	Verify that the login screen contains elements such as Emailid, Password, Sign in button, Forgot password link.	Required fields available	Required fields available	Positive
TC2	Verify the validation message when click on Log-In button without filling the details.	Validation message of field Required	Got validation message of Field required.	Positive
TC3	Verify that the admin will be able to log in with their account with the correct credential.	Welcome to the home page must be shown.	Redirected to Home page.	Positive
TC4	Verify the error message should display after just entering an email address and leaving the password field blank.	validation message of field Required	Got validation message of Field required.	Positive
TC5	Verify that the password entered should be in encrypted form.	Password must be in encrypted form	Password is in encrypted form.	Positive

Fig 7.2.1 Login form Test Cases

7.2.2 : Test cases:

1	Forgot password	If the admin forgets the password then she/he can click	User must get link on mail	As Expected	PASS
2	Change password	User must know the current password	User's password must be changed	As Expected	PASS
3	Category	Check whether by clicking on products in header All the categories added by admin	Admin can add, edit and delete the category of the products.	As Expected	PASS
4	Products	Admin can add the products.	Adding the product with products quantity which we already enter in the inward.	As Expected	PASS
5	Employee	Admin can add the employee details for tract the produt history.	Admin can see the all employee details which he/she can assign them.	As Expected	PASS
6	Assign product	Admin can assign the products to the employee.	1. Admin assign the products to the employee. 2. system can show the alert when admin assign the product to the employee but it is out of stock.	As Expected	PASS
7	Manage roles	Admin assign the particular roles to any users.	Admin assign the role as per her/his conviencely.	As Expected	PASS
8	Reports	Admin can generate the reports.	Admin generates all the report into excel format	As Expected	PASS

Fig 7.2.2 Test Cases

8.0 CONCLUSION AND DISCUSSION

8.1 OVERALL ANALYSIS OF INTERNSHIP

- If overall analysis is done of Internship, initially learning new technology was bit difficult to implement directly on any project which was also a bit confusing but after taking a sufficient knowledge the flow of implementing the idea became a bit easy.
- Every bug came in each functionality made me learn more about the technology and also taught me how to fix the bugs.
- So overall it was a quite excellent experience to learn new technology and simultaneously implement it in a project.

8.3 DATES OF CONTINUOUS EVALUATION (CE-I AND CE-II)

- First review is conducted on 1/03/2023 via online mode.
- Second review is conducted on 27/04/2023 via offline mode.

8.4 PROBLEM ENCOUNTERED AND POSSIBLE SOLUTIONS

Problem

- Admin have to maintain the record and history of the product in Excel Sheet.

Solution

- We can integrate the web-based system so Admin can easily manage and track the product and also download the report in excel sheet.

8.5 SUMMARY OF INTERNSHIP / PROJECT WORK

This project Office Inventory Management System reducing the cost of the company Quality and Reliability is to keep trackof employee's data and admin easily manage the company's Inventory with precious Manners. This project will be accessible to only for admin and its facility allows admin to focus on accurate record.

This application software has been computed successfully and was also tested successfullyby taking "test cases". It is user friendly, and has required options, which can be utilized by the user to perform the desired operations.

The software is developed using as ASP.NET MVC in Windows environment. The goals that are achieved by the software are:

8.5.1 Instant access.

8.5.2 Optimum utilization of resources.

8.5.3 Efficient management of records.

8.5.4 Simplification of the operations.

8.5.5 Less processing time and getting required information.

8.5.6 User friendly.

8.5.7 Portable and flexible for further enhancement.

8.6 LIMITATION AND FUTURE ENHANCEMENT

8.6.1 Limitation

- System works with windows 10 or earlier version and its compatible environments.
- Advanced techniques are not used to check the authorization.
- Also, the placing order functionality is half build currently when the customer places order only the email is sent so in future the payment section will also be added.

8.6.2 Future Enhancement

User requirements keep changing as the system is being used. Some of the future enhancements that can be done to this system are:

- As the technology emerges, it is possible to upgrade the system and can be adaptableto desired environment.
- Because it is based on object-oriented design, any further changes can be easily adaptable. Based on the future security issues, security can be improved using emerging technologies.
  - Attendance module can be added
  - sub admin module can be added
- At present, there is no live chat feature for helping developer which can be added in future.
- features such as scrum-ban boards and ability to build reports based on the bug history can be include.

REFERENCES

- https://www.c-sharpcorner.com/
- https://stackoverflow.com/
- https://www.w3schools.com/
- https://www.tutorialsteacher.com/
- https://jquery.com/
- https://www.w3schools.com/jquery/default.asp
- https://www.chartjs.org/