



# **Industrial Internship Report**

**ARGUSOFT INDIA LTD.**

*Submitted by*

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*In partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**in**

**COMPUTER ENGINEERING**

**L. D. College of Engineering, Ahmedabad**

**Gujarat Technological University,**

**Ahmedabad - 382424**

**April, 2024**



**L. D. College of Engineering**  
**120, Circular Road, University Area,**  
**Ahmedabad, Gujarat - 380015**

## **CERTIFICATE**

This is to certify that **Ujwal Pavankumar Gupta (200280107086)** has submitted the Industrial Internship report based on internship undergone at **Argusoft India Ltd.** for a period of **16** weeks from **02/01/2024** to **19/04/2024** in partial fulfilment for the degree of Bachelor of Engineering in **Computer Engineering, L. D. College Of Engineering** at Gujarat Technological University during the academic year 2023-24.

Dr. Nikunj Domadiya

Internal Guide

Dr. Chirag Thaker

Head of the Department



**L. D. College of Engineering**  
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**Ahmedabad, Gujarat - 380015**

## **DECLARATION**

I, Ujwal Pavankumar Gupta (200280107086), hereby declare that the Internship report submitted in partial fulfilment 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 Argusoft India Ltd. under the supervision of Braj Dangi 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

Gupta Ujwal Pavankumar

Sign Of Student

## ACKNOWLEDGEMENT

First, I want to express my gratitude to **Braj Dangi**, the Human Resources at **Argusoft India Ltd.**, for offering me valuable guidance throughout my internship.

I also would like all the people that worked along with me at **Argusoft India Ltd.** with their patience and openness they created an enjoyable working environment. It is indeed with a profound sense of pleasure and immense sense of gratitude that I acknowledge the help of these individuals.

I am highly indebted to **Dr. Chirag Thaker** and Principal **Dr. Nilay Bhuptani**, for the facilities provided to accomplish this internship. I would like to thank my Head of the Department **Dr. Chirag Thaker** for his constructive criticism throughout my internship.

I would like to thank **Dr. Nikunj Domadiya** Internal Guide of internship from Department of Computer for their support and advice to get and complete internship in above said organization. I am extremely great full to my department staff members and friends who helped me in successful completion of this internship.

Gupta Ujwal Pavankumar

200280107086

## ABSTRACT

In the present scenario, everyone focuses on the theoretical knowledge and this not the accurate way to study the basics of programming and Software Development Processes, one must understand that practical knowledge is also as much as important as the theoretical knowledge. As an Engineer, one must be aware about certain technical process also he must be aware of some non-technical work too such as management, effective communication with the colleague, manager etc. Hence to develop good engineers, our engineering curriculum consists of a course name 'Internship/Project' in 8th which helps to implement the theoretical knowledge into the practical ideas. Also, along with technical knowledge student also improves his/her non- technical skills. Also, by this training refresh our college study and relate the theory study which put it into practical knowledge. Under this subject I work on Employee Management System Site to develop during this internship. In this project I learn about many technologies like HTML, CSS, JavaScript, Vue, NodeJs, Pinia, Vuetify and PostgreSQL.

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## Chapter 1: Overview of the Company

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### 1.1 Introduction

Argusoft is a software solution design company. Over the last 20+ years, Argusoft have built end-to-end, enterprise-class turnkey solutions. Argusoft's diverse clientele ranges from small & medium businesses to very large private ones and public & government organizations. Argonauts (team Argusoft!) are trained to think 'design' at every step. Argusoft architect, design & code, always keeping business goals & objectives in mind to enhance business outcomes. Argusoft leverages its proprietary low-code frameworks – Business Modeller & MEDplat – to deliver fully customized solutions that are enterprise-grade, stable, quick to configure & faster to deliver.

### 1.2 Services

Argusoft augment client teams with their software development, testing, maintenance and support. Argusoft's primary focus is Business Automation and SOA system integration, leveraging Java, PHP, dotNet and Web 2.0 related technologies. Argusoft deliver these services as turnkey projects or through our extended team model (mODC - managed Offshore Development Center), providing a completely managed team, to ensure continuity and efficiency.

1) **mODC** - We augment client teams with their software development, testing, maintenance and support. Our primary focus is Business Automation and SOA system integration, leveraging Java, PHP, dotNet and Web 2.0 related technologies. We deliver these services as turnkey projects or through our extended team model (mODC - managed Offshore Development Center), providing a completely managed team, to ensure continuity and efficiency. Argusoft's mODC model comes to you with integrated project management, technical mentoring and QA, along with management oversight to ensure quality throughput. Argusoft's unique recruitment process, in-house training and methodologies ensure that our clients get the best resources, as an extension of your team, with the flexibility to ramp.

2) **Third Party QA**- Quality and Stability are very fundamental and basic to the success of a system. Any reasonable sized software house maintains their own software

quality assurance and testing team. However this team usually 'swims in the same bowl' as the development team and hence is not independent. Argusoft's maintains an independent QA team with certified QA engineers, separate from in-house development/testers. This ensures an objective testing of the software systems beyond the development testing. Argusoft brings you a highly practical, efficient and affordable solution to realize your tailor made testing and test automation strategy. This ensures a higher success rate for a faster production launch.

- 3) **Turnkey Solutions** – As an one-stop-solution provider, Argusoft has undertaken turnkey projects to provide end to end IT solutions to our customers, that are tailor made to meet specific business needs. Argusoft's methodologies, processes and solution approach (agile/waterfall) are fully 'YOU' oriented. Argusoft has refined its business process by blending the best industry practices and Methodology that fits the needs of its customers. Argusoft use various automation tools to optimize the development process like bug tracking, document management, collaboration, QA automation and IEEE standards for documentation. Argusoft's domain expertise and OEM IPs in various functional areas like healthcare, life sciences, education, banking & financial etc. have helped for successful completion of many turnkey projects over the last decade, "On Time – Every Time".
- 4) **Mobile Development** - Argusoft provide enterprise-grade mobile applications and software to startups and SMB companies. Argusoft have designed and developed enterprise grade mobile solutions for clients in diverse industries like healthcare, education, restaurant supply chain, astrology etc. Argusoft's resource pool of mobile app development includes skilled business analysts, UI UX designers and software engineers experienced in both native and hybrid mobile application development tools. Argusoft have undertaken native app projects leveraging IOS, ANDROID and SYMBION mobile operating environments and have a strong expertise in hybrid mobile application development using ionic/angularJS frontend with a traditional backend of java, php etc.
- 5) **DevOps Consulting Services** - As a DevOps consulting company, we help you to build a DevOps environment from scratch and redefine your delivery & deployment strategy through our services. With DevOps expertise Argusoft helped clients to achieve better operational efficiency and improved deployment quality.

## Chapter 2: Process of the organization

---

### 2.1 List of Technical Specifications

1) HTML	13) dotNet
2) CSS	14) Bamboo
3) JavaScript	15) Cucumber
4) Angular	16) Code Igniter
5) Vue JS	17) Spring
6) React JS	18) Java
7) Node JS	19) Hibernate
8) Express JS	20) Laravel
9) MongoDB	21) Jenkins
10) MySQL	22) Protractor
11) PostgreSQL	23) Selenium
12) Ionic	24) CakePHP

Table 2.1 List of Technical Specification

## 2.2 Sequence of operation for manufacturing of product

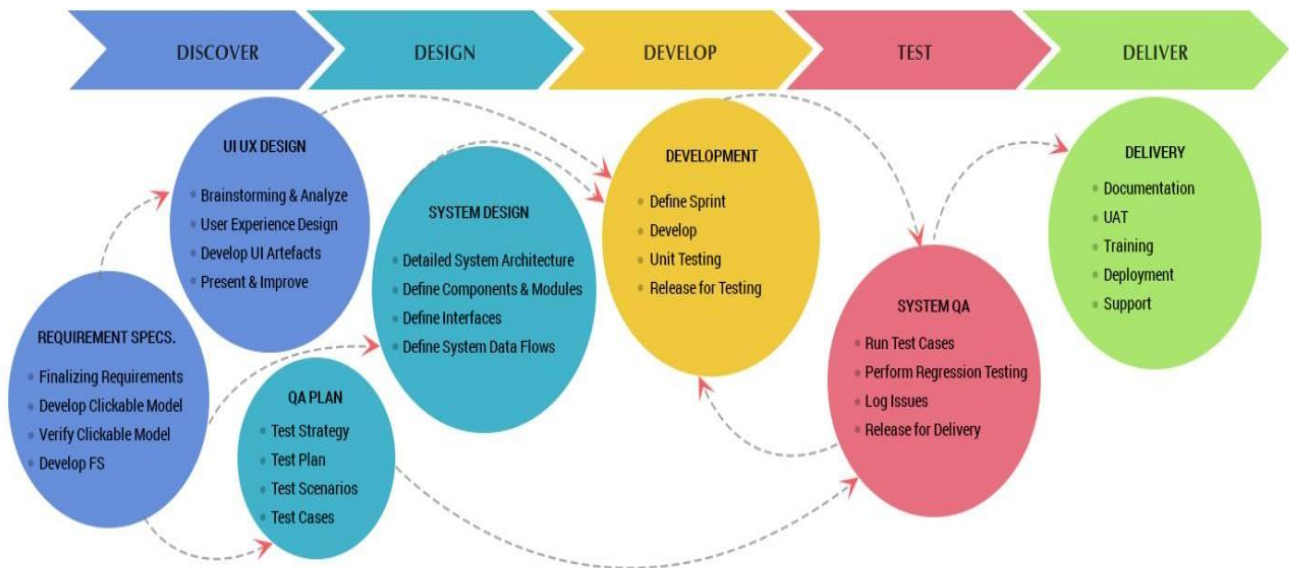


Figure 2.1 Approach for Building Product

## 2.3 Different Stages of The Production

The main stages of production are as per below -

- 1) **Requirement analysis** - Gather software requirements based on customer and stack-holder feedback.
- 2) **Planning** - Based on requirements make teams and arrange tools to optimized production of software.
- 3) **Design** - Design UI/UX of software with involvement of user and stack-holder.
- 4) **Implement** - Start implementation based on designing of software or product.
- 5) **Testing** - Do testing of complete product or software with all functionalities and do QA (Quality Assurance) for the complete product.
- 6) **Feedback** - Accept feedback from customer who use these product and work on it in next phase of software.

## Chapter 3: Internship Management

---

### 3.1 Overview:

An Invoice Management System (IMS) is a software solution designed to automate and streamline the process of creating, sending, tracking, and managing invoices within an organization. It encompasses a range of functionalities to facilitate efficient invoice handling, including invoice generation, customization, tracking, payment processing, reporting, and more.

### 3.2 Purpose:

Through this Invoice Management System an Admin or Company can manage all their Invoices and operations like View all Invoices details, edit/delete Invoice, view Pending Invoices etc... and to streamline and optimize the process of handling invoices within an organization.

### 3.3 Objective:

The main objective of this site to build our logical ability to develop a website. We can implement our knowledge of technology and build real-life projects. So, we can learn how the real-life programming works, how to write a good code or program how to build logic, which loopholes we will face while we work on real-life working and deployed product.

### 3.4 Scope/Application:

The application of an Invoice Management System (IMS) spans across various industries and business sizes, offering benefits to organizations of all types. Here are some specific applications of IMS:

- **Retail and E-commerce:** Retailers and e-commerce businesses manage invoices for both purchases from suppliers and sales to customers. IMS facilitates inventory management, order tracking, and billing automation, ensuring smooth invoicing processes in retail and e-commerce operations.
- **Healthcare Providers:** Healthcare providers, including hospitals, clinics, and medical practices, generate invoices for services rendered to patients and payments received from insurance companies. IMS helps healthcare providers streamline

medical billing, insurance claims processing, and revenue cycle management.

- Educational Institutions: Educational institutions, such as schools and universities, manage invoices for tuition fees, student expenses, and vendor services. IMS automates billing for tuition and fees, tracks student payments, and manages accounts receivable, enhancing financial management in educational settings.

The application of an Invoice Management System is widespread across industries and sectors, offering organizations a range of benefits, including improved efficiency, accuracy, compliance, and financial management.

### **3.5 Technology Used:**

- HTML
- CSS
- JavaScript
- Vue JS
- Node JS
- PostgreSQL

### **3.6 Internship Planning:**

#### **3.6.1 Project Development Approach:**

- I used agile methodology to implement this website.
- Agile modeling is a methodology for modeling and documenting software systems based on best practices.
- Agile methodology overcomes the risk of spending a lot of time if there are any changes required.
- This provides a clear outcome with a focused goal and in an incremental way.
- Customer satisfaction with rapid, continuous delivery of useful software.
- People and interactions are emphasized rather than processes and tools.
  - Working software is delivered frequently.
  - Face-to-face conversation is the best form of communication.
  - Close, daily cooperation between businesspeople and developers.
  - Continuous attention to technical excellence and clever design.
  - Regular adaptation to changing circumstances.



### **3.6.2 Internship efforts and time:**

#### **3.6.2.1 Training phase**

- ▮ HTML
- ▮ CSS
- ▮ JavaScript
- ▮ Vue JS
- ▮ Node JS
- ▮ PostgreSQL
- ▮ Git/GitHub

#### **3.6.2.2 Development phase**

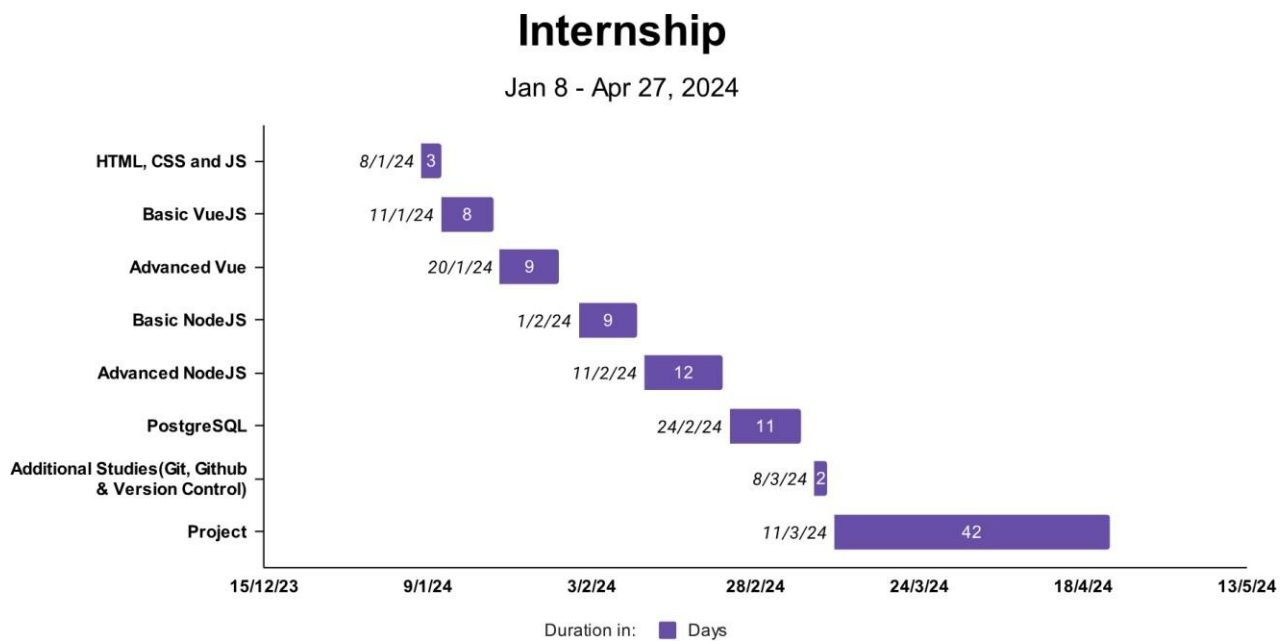
- ▮ Planning project structure
- ▮ Develop Front-end
- ▮ Develop Back-end
- ▮ Testing & fix bug
- ▮ Change & improve quality of code

### **3.6.3 Role assigned to me during the internship:**

- ▮ I am working as a Web-Development Intern.
- ▮ Get Basic concept of all required technology in project
- ▮ Work with HTML, CSS, JavaScript, Vue JS
- ▮ Design frontend for website
- ▮ Work with Node JS and PostgreSQL
- ▮ Design Backend
- ▮ Testing and fixing bugs in website

### **3.7 Internship Scheduling:**

- ▮ Internship is divided into two phases -
  - 1) Training Phase
  - 2) Development Phase
- ▮ I spent two and half month training time.
- ▮ And four to five weeks for developing and testing websites.



*Figure 3.1 Internship Scheduling*

## Chapter 4: System Analysis

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### 4.1 System Feasibility and Problem:

#### 4.1.1 Current System Study and Problem:

- The current invoice management systems (IMS) have evolved significantly over the years, but some challenges and areas for improvement still persist.
- **Complexity:** Some IMS can be overly complex and difficult to navigate, especially for users with limited technical expertise. This complexity can lead to user frustration and errors in invoice processing.
- **Cost:** Implementing and maintaining IMS can be costly, especially for small and medium-sized businesses with limited budgets. Additionally, some IMS may have hidden costs associated with upgrades, integrations, or additional features.
- **Lack of Scalability:** Not all IMS are easily scalable to accommodate growing business needs, especially for organizations experiencing rapid expansion or changes in invoice volume.
- **Integration Issues:** While integration with other systems is a key feature of IMS, compatibility issues and data synchronization challenges can arise when integrating with legacy systems or third-party software.
- **Security Concerns:** Data security is a significant concern with IMS, particularly regarding the protection of sensitive financial information and prevention of unauthorized access or cyber threats.

#### 4.1.2 System Feasibility:

##### 4.1.2.1 System Contribution:

- Invoice Management website give contribution in all industry sector to manage their invoices more accurately with technology.

### 4.2 User Characteristic:

The users of the Invoice Management website are expected to be individuals and have access to a computer or mobile device with an internet connection. They are likely to be tech-savvy and value convenience, variety, and competitive pricing.

### **4.3 System Features:**

#### **Registration Page -**

- Through this page a new vendor will enter the details and after the successful validation of the detail vendor it sends request to admin for approval.

#### **Login Page -**

- Through this page already logged in user can go to the vendor page directly without filling out vendor's all auth details.
- Vendor must enter username and password for the login.
- After Successful Login based on Role User will be Redirected to Either Admin Dashboard or Vendor Dashboard.

#### **Admin Page –**

- In this page admin can see total vendors, and Status of vendor like approved or pending.
- Admin can approve the pending vendors and email is sent to vendor with their beginning credentials
- Admin can also delete the vendor

#### **Update Password for admin –**

- Admin can update only password and there is only one admin

#### **Create Invoice Page -**

- In this page user can create new Invoice by filling details of the form and add the products

#### **Products Page –**

- Get all the products list for that particular vendor and it contains searching, sorting through name, Edit product page and delete product page

**Invoices Page –**

- In this page vendor can see all of the invoices details in table format and also perform edit status, download invoice as pdf, send via mail, export all invoices in csv format .

**Customers Page –**

- In this page vendor can see all the Customer details in table format and can perform edit details, export as csv, delete customer.

**Profile Page –**

- Vendor can see his/her profile and can edit his/her details, Update password

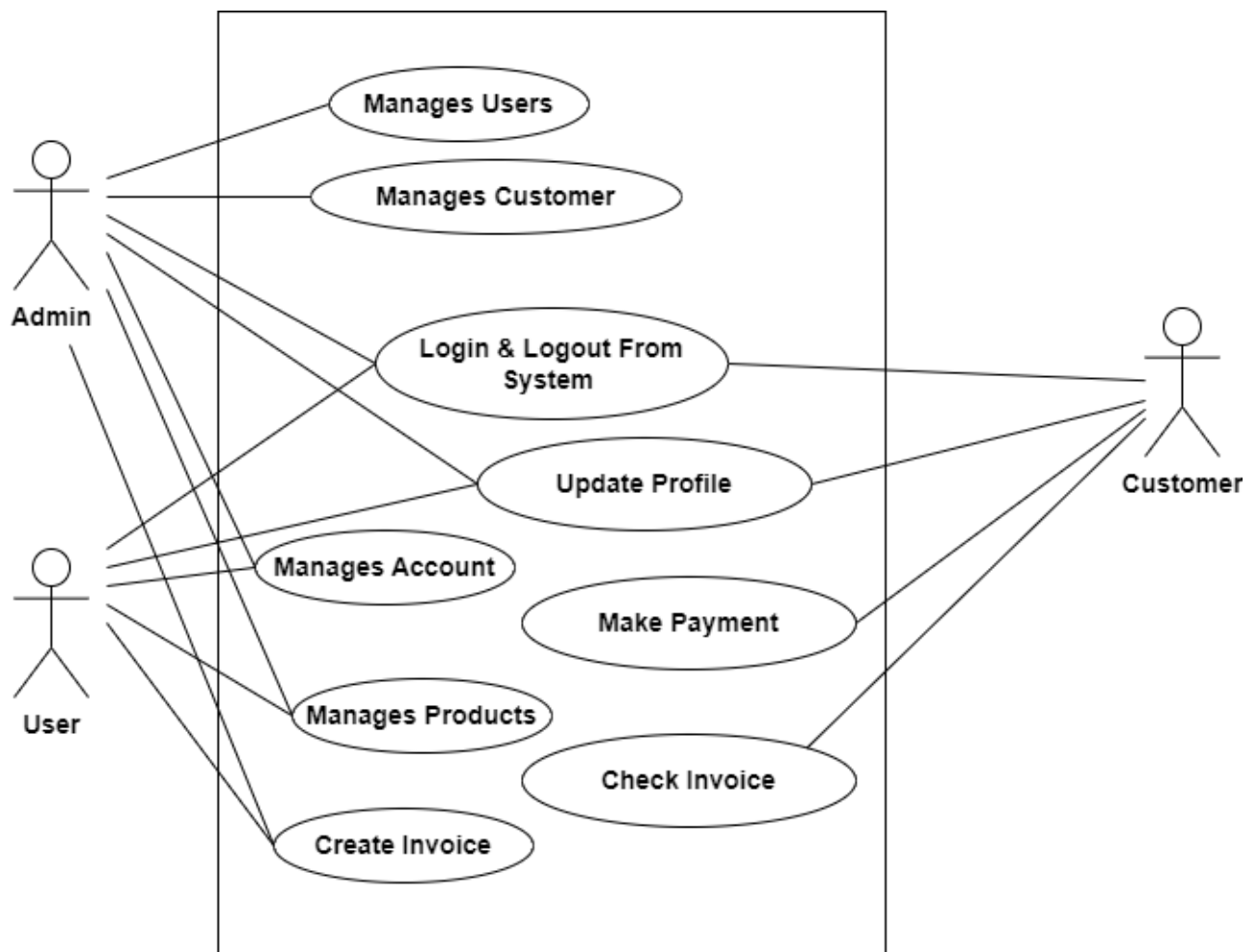
**4.4 System Technology:**

- Vue JS, Vuetify, Material icons, HTML, CSS, JavaScript is used for frontend of this website.
- Pinia is used for the state management of the website.
- NodeJS is use to create the APIs for the website.
- PostgreSQL is used as database to store the data
- To code for this website, I used VS Code editor.

## Chapter 5: System Design

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### 5.1 Use Case Diagram:

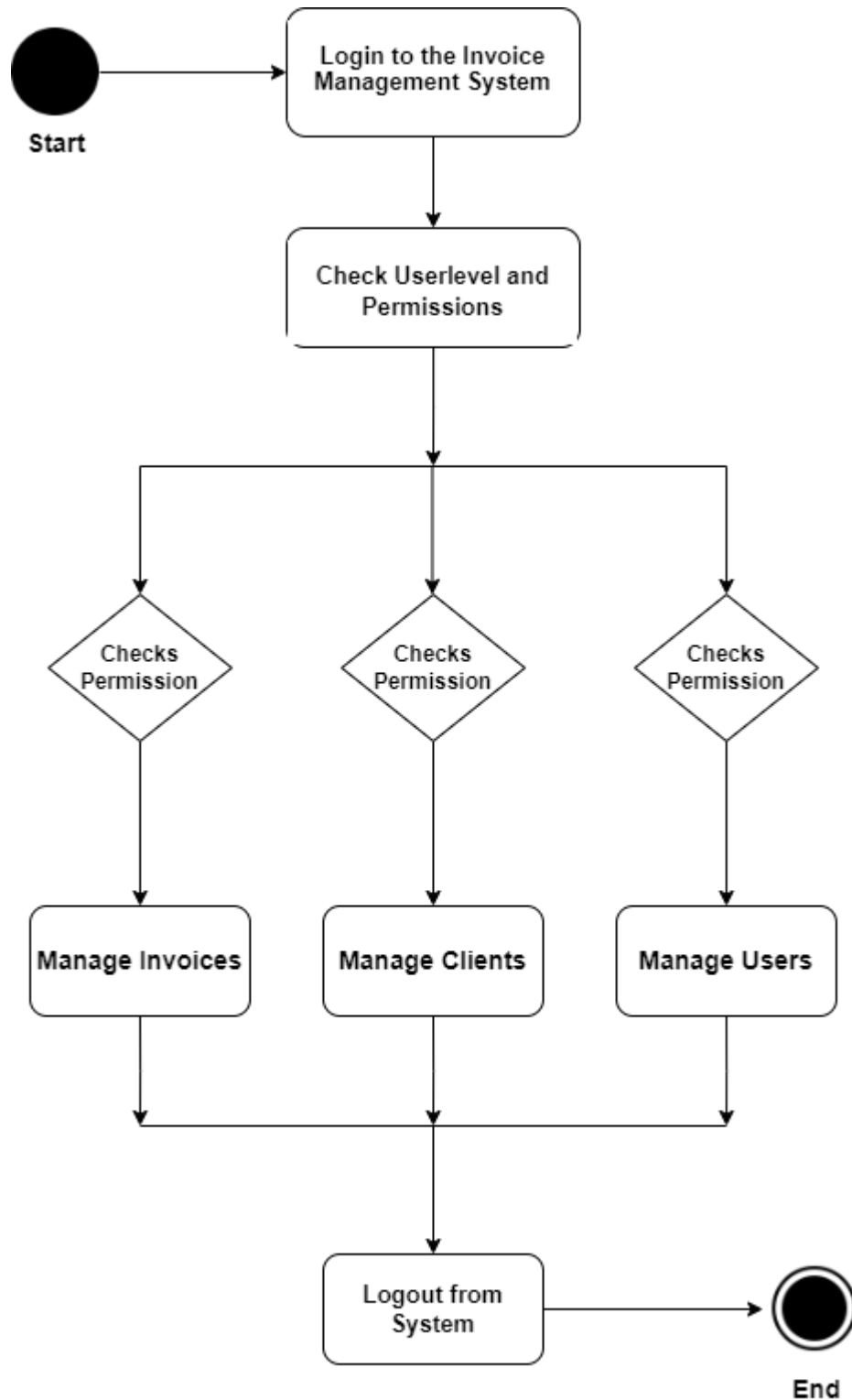


**Use Case Diagram for Invoice Management System**

*Figure 5.1 Use case Diagram*

## 5.2 Activity Diagram:

### 5.2.1 Activity Diagram for vendor:



**Activity Diagram of Invoice Management System**

*Figure 5.2 Activity Diagram for user*

### 5.2.2 Activity Diagram for admin:

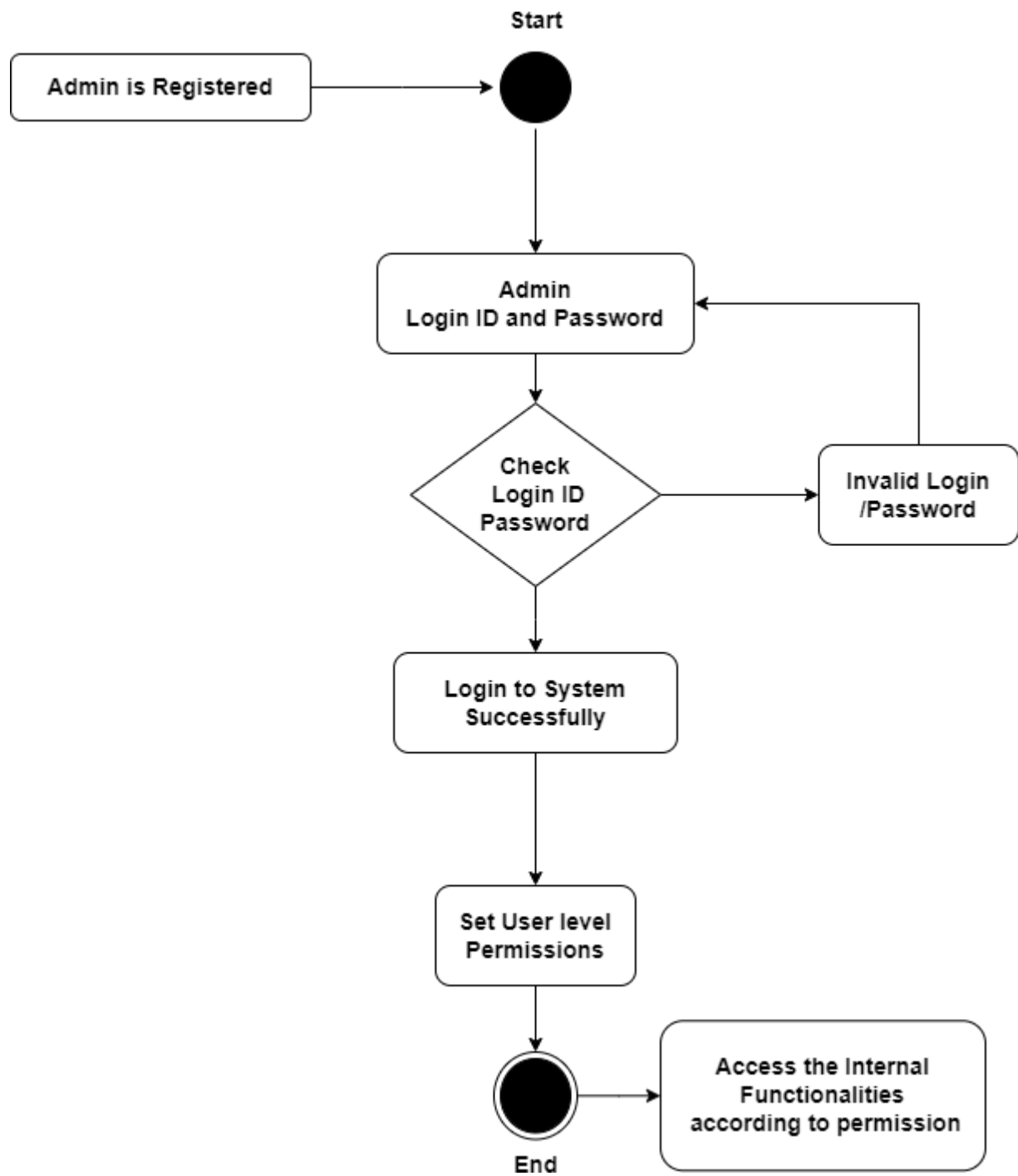


Figure 5.3 Activity Diagram for admin



### 5.3 ER Diagram

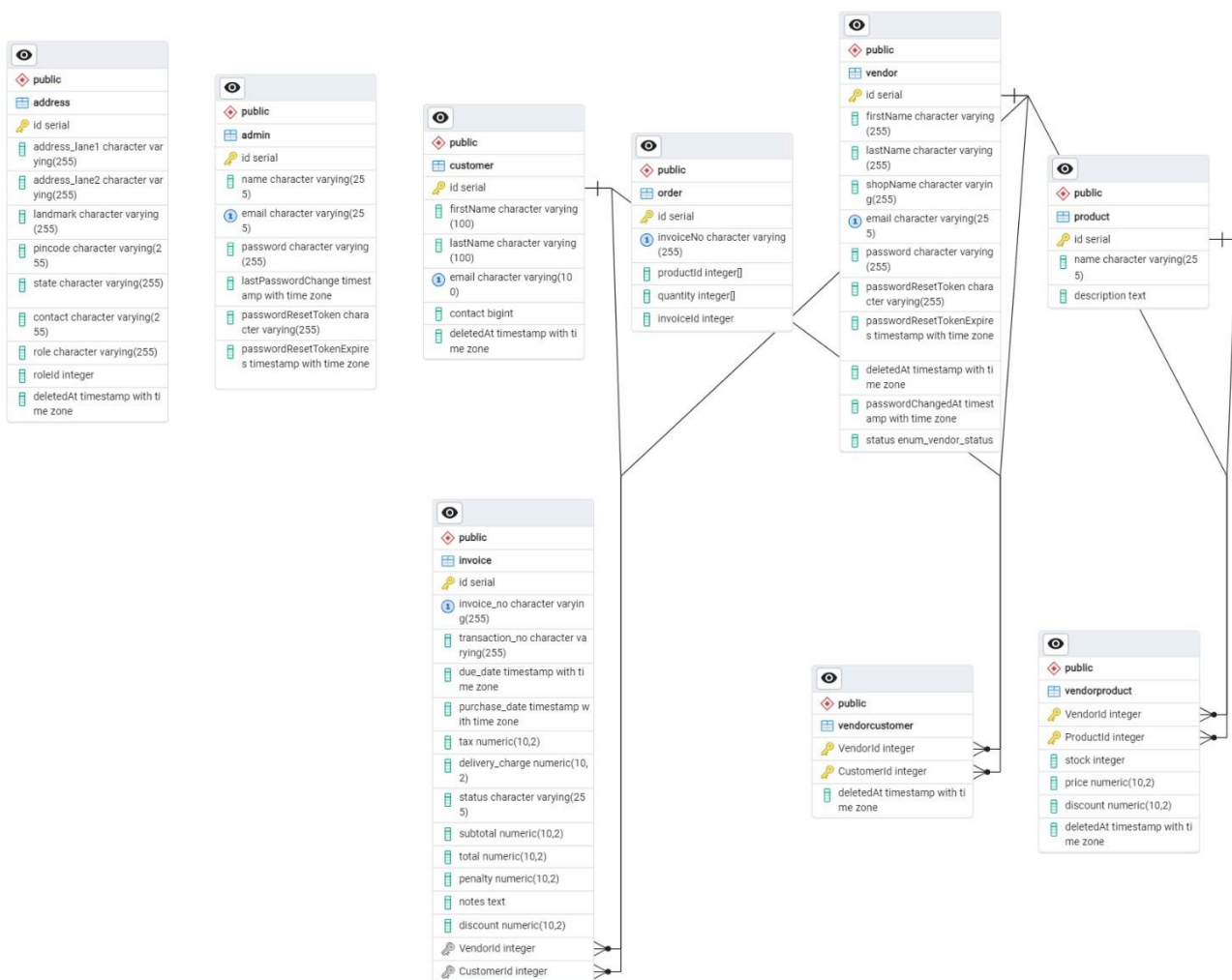


Figure 5.4 ER Diagram

## Chapter 6: Implementation

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### 6.1 Introduction to Project:

- Firstly, I was assigned to practical and assignment of different technologies to show skill level on coding part.
- In training session, there some technology given by guide to learn for main project:
  1. HTML
  2. CSS
  3. Bootstrap
  4. Basic VueJS
  5. Javascript
  6. Advanced VueJS
  7. Node JS
  8. Authentication and Authorization
  9. PostgreSQL
- In this training session I learnt so many new things about technology which is very necessary in the implementation of a real project.

## **6.2 Implementation Platform / Technology:**

### **6.2.1 Implementation Platform:**

#### **1. Visual Studio Code (VS Code):**

Visual Studio Code was first announced on April 29, 2015, by Microsoft at the 2015 Build conference. A preview build was released shortly thereafter. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node.js, Python and C++. It is based on the Electron framework, which is used to develop Node.js Web applications that run on the Blink layout engine.

### **6.2.2 Technology:**

#### **1. HTML, CSS, JavaScript:**

HTML and CSS are used in frontend of website to make user friendly interface. JavaScript is used to develop interactive web applications. JavaScript can power features like interactive images, carousels, and forms. JavaScript allows you to make a website more interactive, from automatically updating content to creating animated graphics and resizing elements on a website.

#### **2. Vue JS:**

- Vue.js offers features such as a reactivity system, which automatically updates the DOM when data changes, a virtual DOM for optimizing rendering performance, and a set of built-in directives for adding dynamic behavior to HTML elements.
- With its progressive nature, Vue.js can be incrementally adopted into existing projects, making it suitable for both small-scale and large-scale applications. It also comes with a command-line interface (Vue CLI) for project scaffolding and development, as well as official libraries for routing (Vue Router) and state management (Pinia).

Overall, Vue.js provides developers with a powerful and intuitive framework for building modern web applications, backed by a vibrant community and ecosystem of libraries and tools.

### 3. Node JS:

- Node.js is an open-source, cross-platform JavaScript runtime environment that executes JavaScript code outside of a web browser. It uses the V8 JavaScript engine, which is also used by the Google Chrome web browser. Node.js allows developers to write server-side code using JavaScript, enabling them to build scalable and high-performance web applications.
- One of the key features of Node.js is its event-driven, non-blocking I/O model, which makes it lightweight and efficient, particularly for handling concurrent connections. This asynchronous programming model allows Node.js to handle many connections simultaneously without getting bogged down by waiting for I/O operations to complete.
- Node.js is commonly used for building various types of applications, including web servers, API servers, real-time web applications, streaming applications, and more. It has a rich ecosystem of modules and packages available through the npm (Node Package Manager) registry, which makes it easy for developers to add functionality to their applications.

### 4. PostgreSQL:

- PostgreSQL is one of the most advanced general-purpose object-relational database management system and is open-source. Being an open-source software, its source code is available under PostgreSQL license, a liberal open source license. Anyone with the right skills is free to use, modify, and distribute PostgreSQL in any form. As it is highly stable, very low effort is required to maintain this DBMS.

## 6.3 Project Overview:

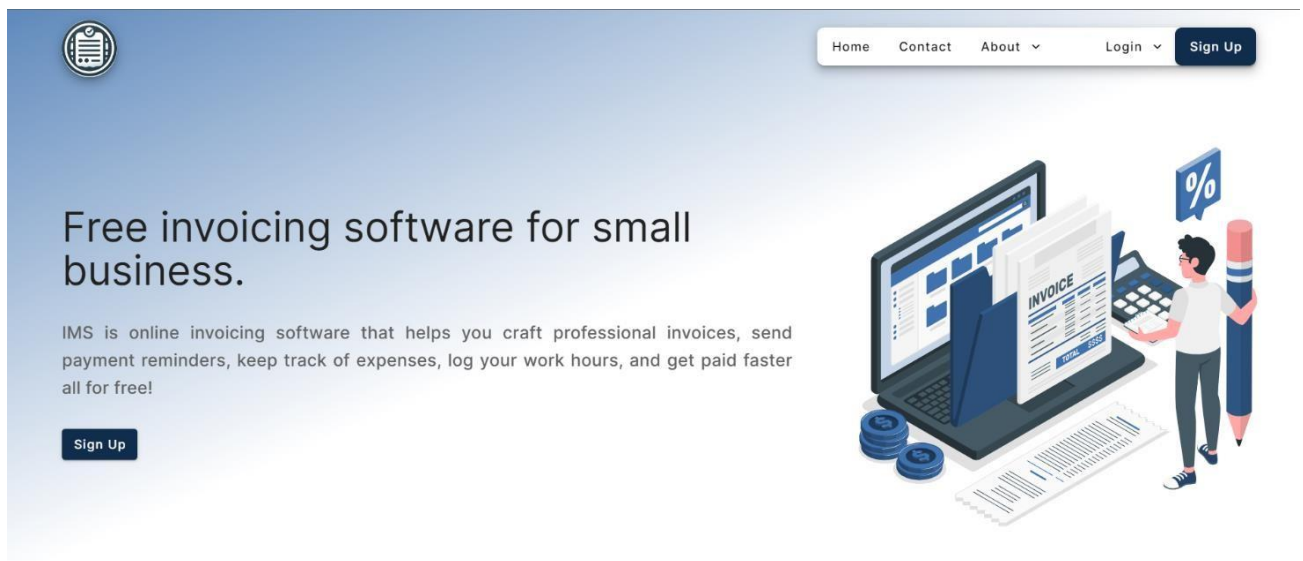


Figure 6.1 Home Page



## Welcome to IMS - Your Partner in Streamlined Invoicing!

At IMS, we believe that invoicing shouldn't be a headache. Our dedicated team of 9 individuals is passionate about simplifying the invoicing process for businesses of all sizes. With sharp mind and keen interest in software development and user experience design, we're committed to delivering a solution that empowers our users to focus more on their core operations.

### Our Vision for the Future

Looking ahead, we are committed to continuously improving our platform and expanding our capabilities to meet the evolving needs of our users. Our vision is to become the go-to solution for businesses worldwide seeking a hassle-free invoicing experience.

### Get Started Today

Ready to experience the future of invoice management? Explore our website to learn more about our platform's features, or contact us

Figure 6.2 Products Page

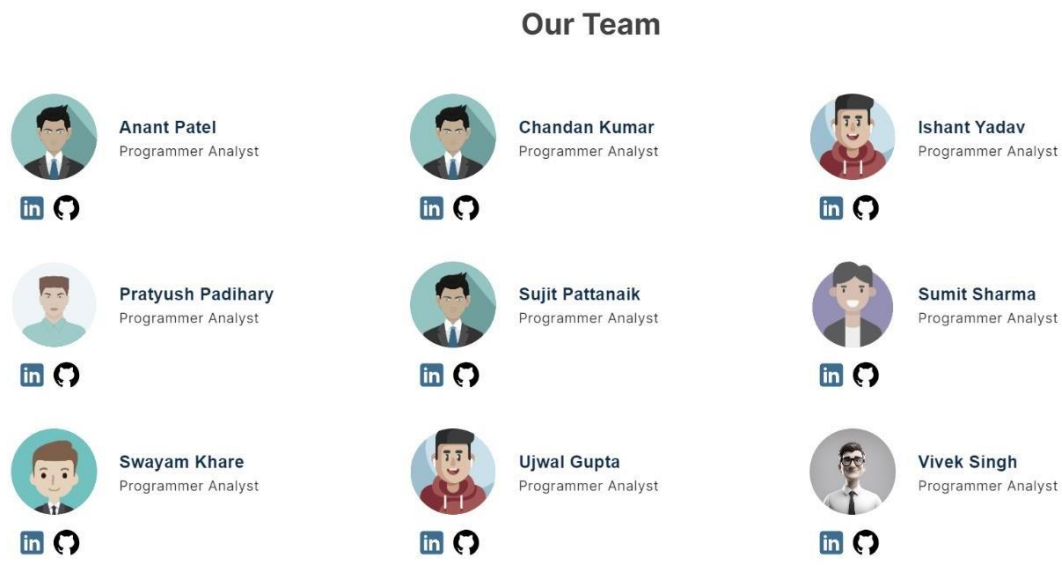


Figure 6.3 Our Team

**Admin Login** [X]

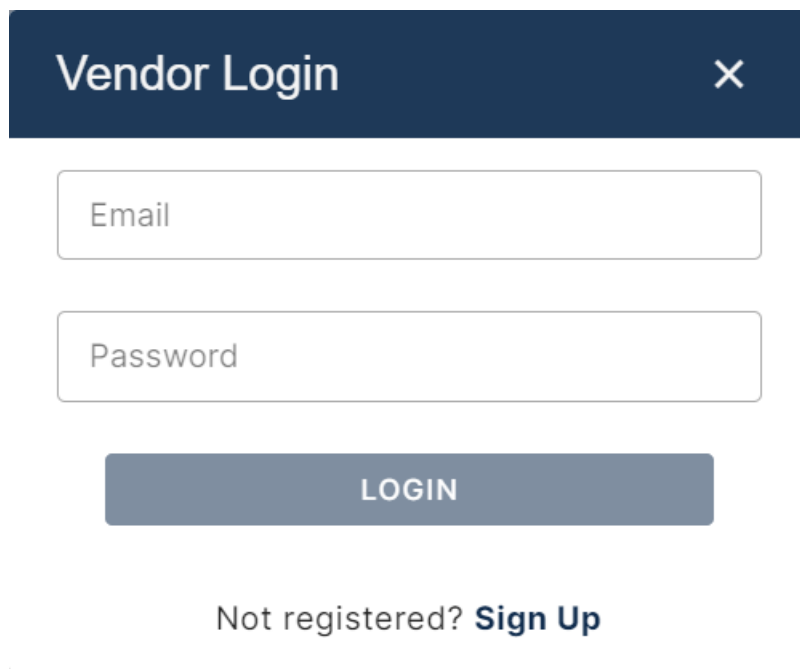
Email

Password

**LOGIN**

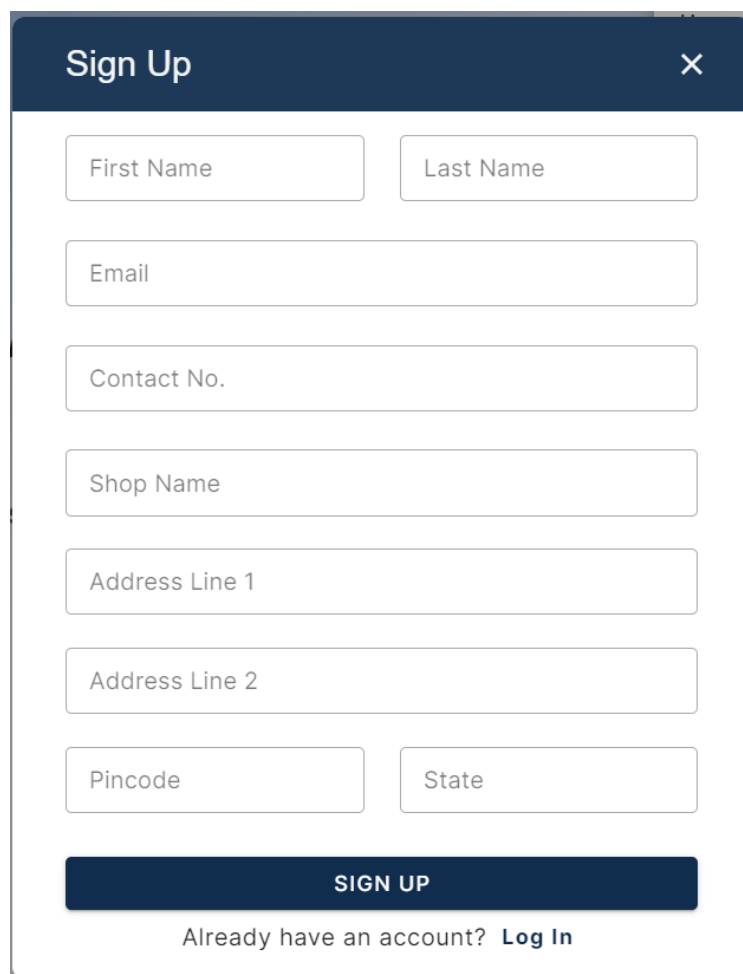
Not an Admin? **Login as Vendor**

Figure 6.4.1 Login as Admin



The image shows a 'Vendor Login' modal window. It has a dark blue header with the title 'Vendor Login' and a close button (X). Below the header are two input fields: 'Email' and 'Password'. Underneath these fields is a blue button labeled 'LOGIN'. At the bottom of the modal, there is a link that says 'Not registered? Sign Up'.

*Figure 6.4.2 Login as Vendor*



The image shows a 'Sign Up' modal window. It has a dark blue header with the title 'Sign Up' and a close button (X). Below the header are several input fields: 'First Name' and 'Last Name' (side-by-side), 'Email', 'Contact No.', 'Shop Name', 'Address Line 1', 'Address Line 2', 'Pincode', and 'State' (side-by-side). At the bottom of the input fields is a blue button labeled 'SIGN UP'. Below the button is a link that says 'Already have an account? Log In'.

*Figure 6.5 Change Password*

Invoice Management System [Logout](#)

John Leider <

- Dashboard
- Products
- Customers**
- Invoices
- Update Profile

Search...

Name	Email	Contact	Actions
Chandan Kumar	chandan@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Anant Patel	anant@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Sumit Sharma	sumit@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Anant Patel	anant@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Sumit Sharma	sumit@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Chandan Kumar	chandan@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Anant Patel	anant@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Sumit Sharma	sumit@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Anant Patel	anant@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>
Sumit Sharma	sumit@gmail.com	9104324532	<a href="#">Edit</a> <a href="#">Delete</a>

< 1 2 3 ... 10 >

Figure 6.7 Vendor Sidebar

Invoice Management System [Logout](#)

John Leider <

- Dashboard
- Products**
- All Products
- Create Product
- Customers
- Invoices
- Update Profile

Search... [Add Product](#)

Name	Price	Discount	Stock	Actions
product 1	200	3	Out of Stock	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	0	3	52	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	52	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	52	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	Out of Stock	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	Out of Stock	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	20552	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	Out of Stock	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	Out of Stock	<a href="#">Edit</a> <a href="#">Delete</a>
product 1	200	3	52	<a href="#">Edit</a> <a href="#">Delete</a>

< 1 2 3 ... 10 >

Figure 6.8 Manage Product Page



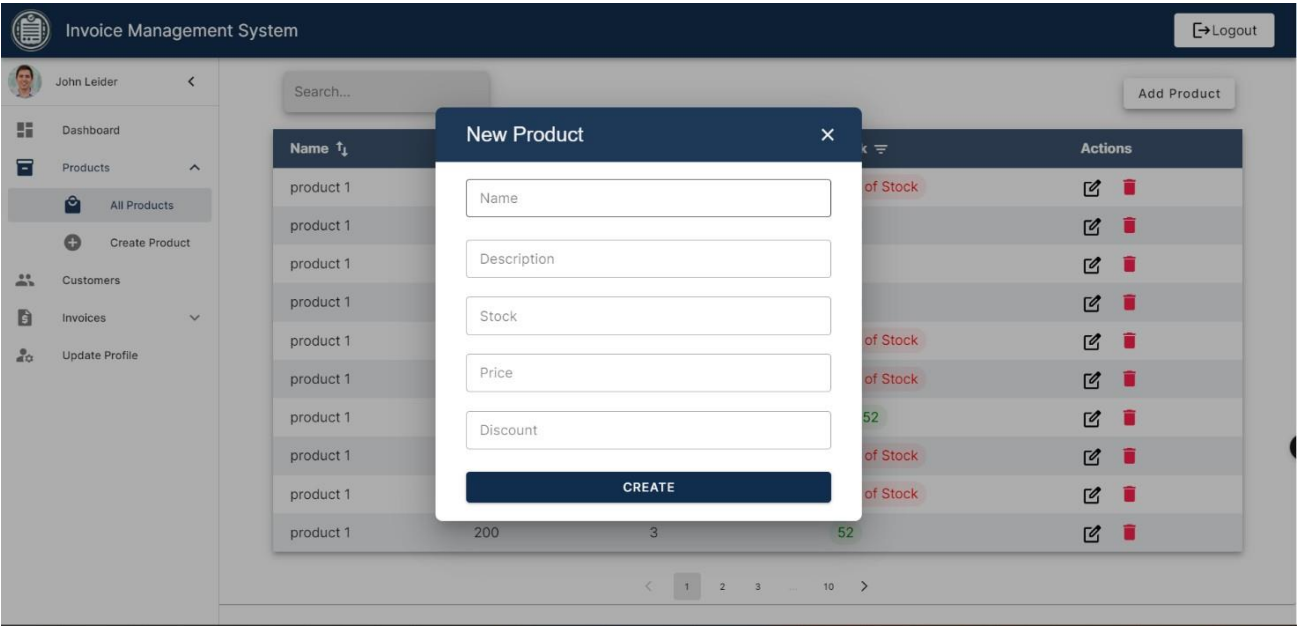


Figure 6.9 Add Product

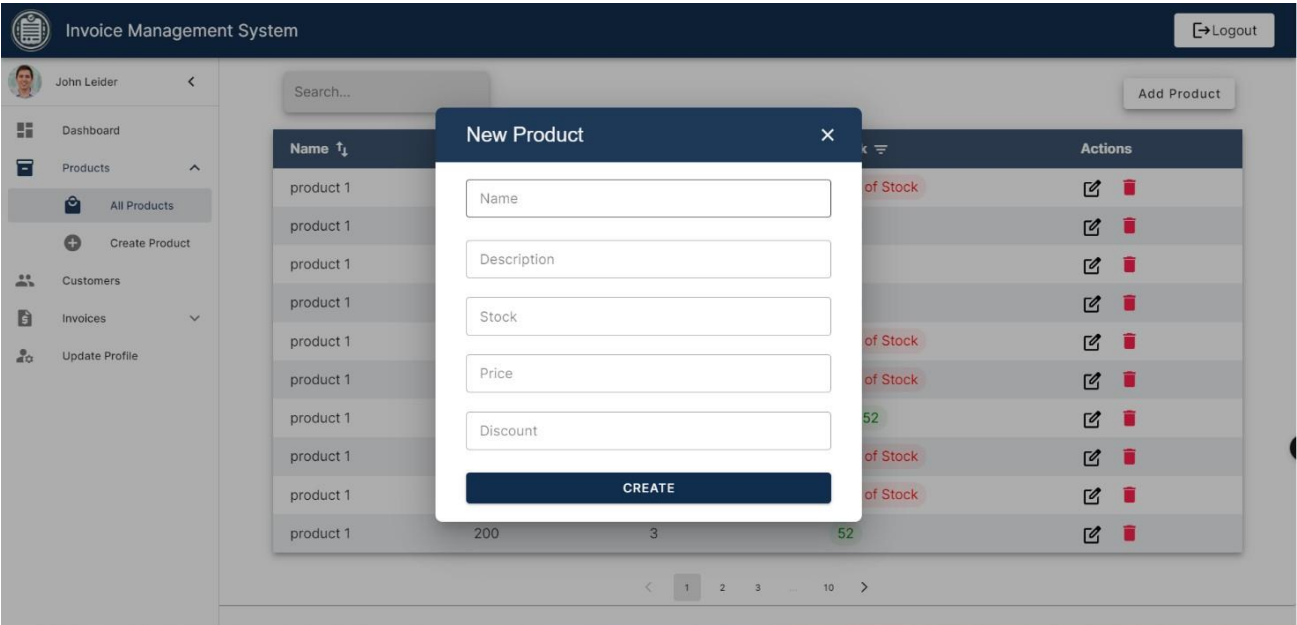


Figure 6.10 Edit Product

Invoice no.	Customer Name	Purchase Date	Due Date	Status	Actions
INV-001	John Doe	2021-09-01	2021-09-30	paid	
INV-002	Jane Doe	2021-09-01	2021-09-30	overdue	
INV-003	John Doe	2021-09-01	2021-09-30	due	
INV-004	Jane Doe	2021-09-01	2021-09-30	paid	
INV-005	John Doe	2021-09-01	2021-09-30	overdue	
INV-006	Jane Doe	2021-09-01	2021-09-30	due	
INV-007	John Doe	2021-09-01	2021-09-30	paid	
INV-008	Jane Doe	2021-09-01	2021-09-30	overdue	
INV-009	John Doe	2021-09-01	2021-09-30	due	
INV-010	Jane Doe	2021-09-01	2021-09-30	paid	

Figure 6.11 Manage Invoice Page

**Create Invoice**

Due Date:  Purchase Date:  Status:

**Customer Info** Select Customer

First Name:  Address Lane 1:

Last Name:  Address Lane 2:

Email:  Landmark:

Contact:  State:  Pincode:

Product	Quantity	Price	Discount	Subtotal
Dish Washer	2	5000	100	4900
TV	1	30000	2000	28000

Figure 6.12 Create Invoice

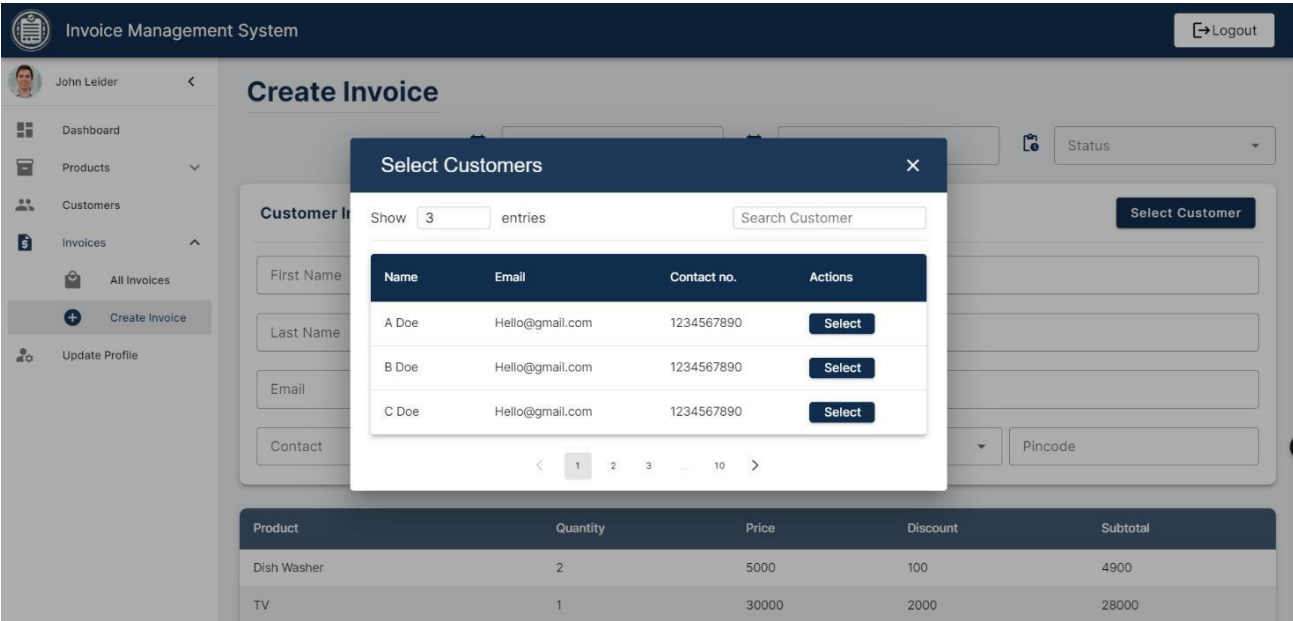


Figure 6.12.1 Existing Customer

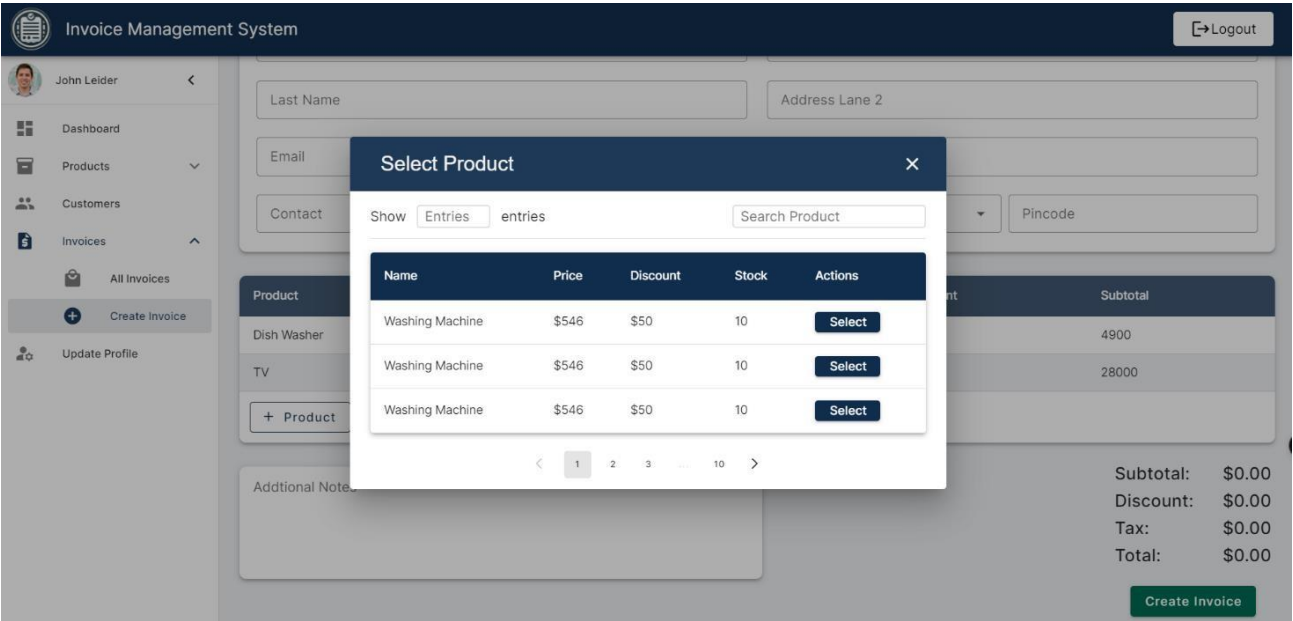
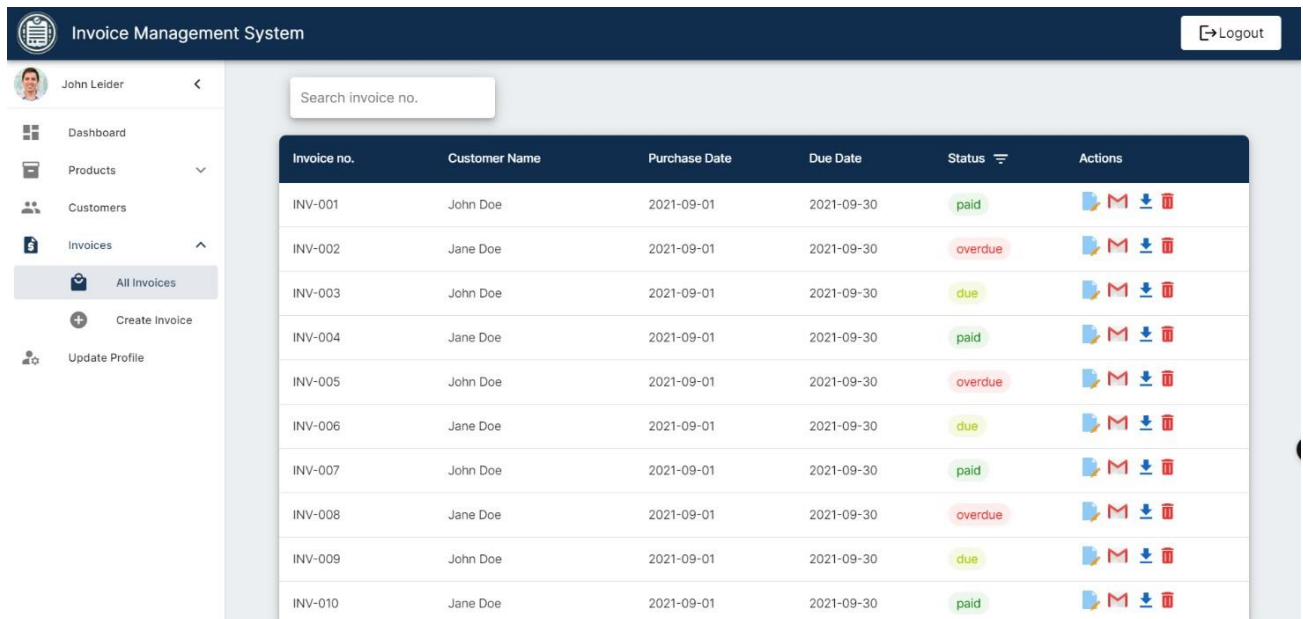


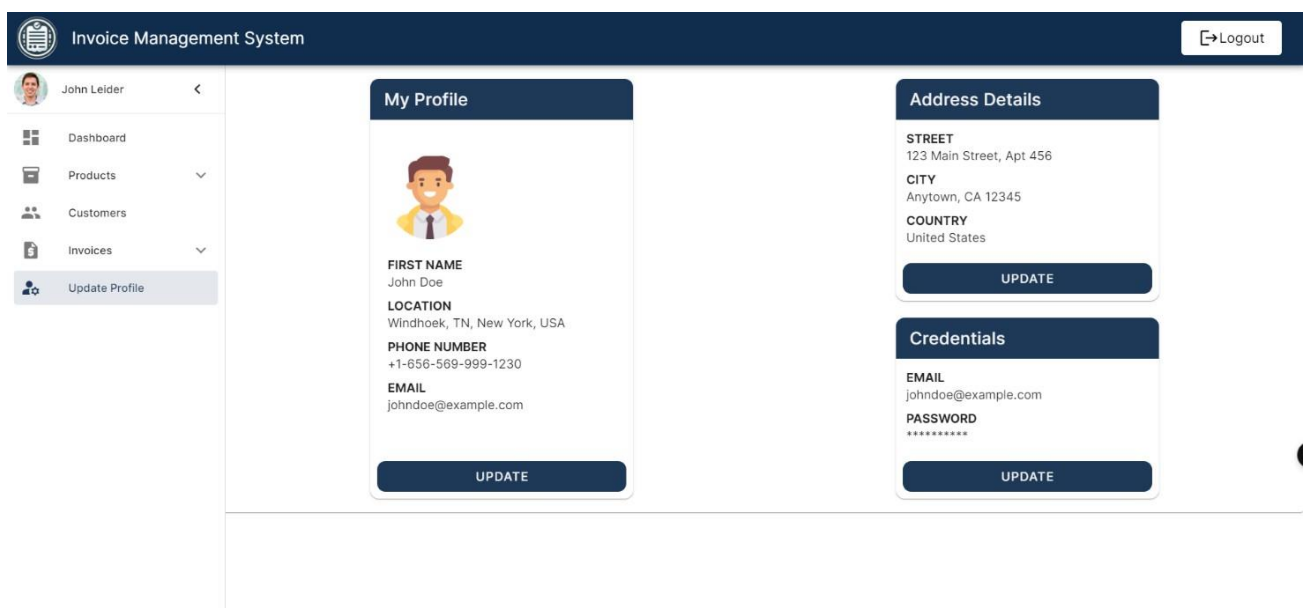
Figure 6.12.2 Existing Products



The screenshot shows the 'Invoice Management System' interface. On the left is a sidebar with a user profile for 'John Leider' and navigation links: Dashboard, Products, Customers, Invoices (selected), All Invoices, Create Invoice, and Update Profile. The main area features a search bar for 'Search invoice no.' and a table of invoices.


Invoice no.	Customer Name	Purchase Date	Due Date	Status	Actions
INV-001	John Doe	2021-09-01	2021-09-30	paid	
INV-002	Jane Doe	2021-09-01	2021-09-30	overdue	
INV-003	John Doe	2021-09-01	2021-09-30	due	
INV-004	Jane Doe	2021-09-01	2021-09-30	paid	
INV-005	John Doe	2021-09-01	2021-09-30	overdue	
INV-006	Jane Doe	2021-09-01	2021-09-30	due	
INV-007	John Doe	2021-09-01	2021-09-30	paid	
INV-008	Jane Doe	2021-09-01	2021-09-30	overdue	
INV-009	John Doe	2021-09-01	2021-09-30	due	
INV-010	Jane Doe	2021-09-01	2021-09-30	paid	

Figure 6.13 Edit Invoice Status



The screenshot shows the 'Vendor Profile Page' in the 'Invoice Management System'. The sidebar is identical to the previous figure. The main content area is divided into two sections: 'My Profile' and 'Address Details'.

**My Profile**



**FIRST NAME**  
John Doe

**LOCATION**  
Windhoek, TN, New York, USA

**PHONE NUMBER**  
+1-656-569-999-1230

**EMAIL**  
johndoe@example.com

**UPDATE**

**Address Details**

**STREET**  
123 Main Street, Apt 456

**CITY**  
Anytown, CA 12345

**COUNTRY**  
United States

**UPDATE**

**Credentials**

**EMAIL**  
johndoe@example.com

**PASSWORD**  
\*\*\*\*\*

**UPDATE**

Figure 6.14 Vendor Profile Page

Personal Details

First Name

Last Name

Shop Name

Contact

>

UPDATE

CLOSE

Figure 6.15 Update Personal Details

Address Details

Address Lane 1

Address Lane 2

Landmark

Pincode

State

<

UPDATE

CLOSE

Figure 6.16 Update Address Details

Update Password

---

New Password —  
 \*\*\*\*\*

New Password —  
 \*\*\*\*\*

Confirm Password —  
 \*\*\*\*\*

UPDATE

CLOSE

*Figure 6.17 Update Password*


Invoice Management System			
Search...			
A			
Name	E-mail	Contact no	Status
✓ Anant Patel	anant@gmail.com	9856243875	pending
✓ Ishant Yadav	ishant@gmail.com	9856243875	pending
✓ Vivek Singh	vivek@gmail.com	9856243875	pending
✓ Pratyush	pratyush@gmail.com	9856243875	pending
✓ Ujjwal Gupta	ujjwal@gmail.com	9856243875	approved
✓ Swayam Khare	swayam@gmail.com	9856243875	approved
✓ Chandan Kumar	chandan@gmail.com	9856243875	approved
✓ Chandan Kumar null	123456@gmail.com	9856243875	approved
✓ user2 asdj	user2@gmail.com	9856243875	approved
✓ sumit Sharma	sumit@gmail.com	9856243875	approved

Items per page: 10

1-10 of 13

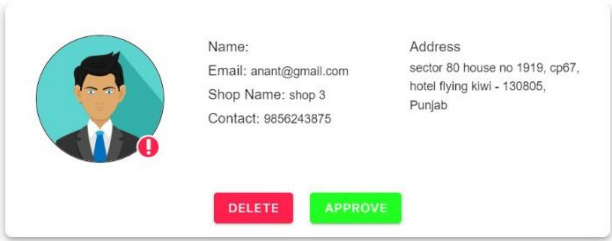
< > << >>

*Figure 6.18 Admin Page*


**Invoice Management System**

A

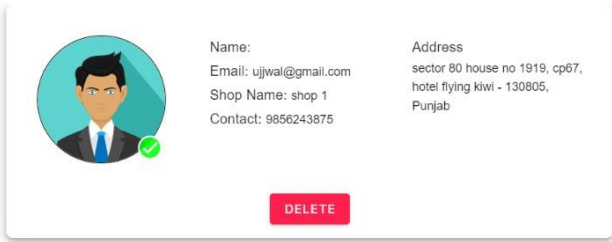
Name	E-mail	Contact no	Status
^ Anant Patel	anant@gmail.com	9856243875	pending



▼ Ishant Yadav	ishant@gmail.com	9856243875	pending
▼ Vivek Singh	vivek@gmail.com	9856243875	pending

### 6.19 View Vendor Details

▼ Vivek Singh	vivek@gmail.com	9856243875	pending
▼ Pratyush	pratyush@gmail.com	9856243875	pending
^ Ujjwal Gupta	ujjwal@gmail.com	9856243875	approved



▼ Swayam Khare	swayam@gmail.com	9856243875	approved
▼ Chandan Kumar	chandan@gmail.com	9856243875	approved
▼ Chandan Kumar null	123456@gmail.com	9856243875	approved

Figure 6.20 Approved Vendor

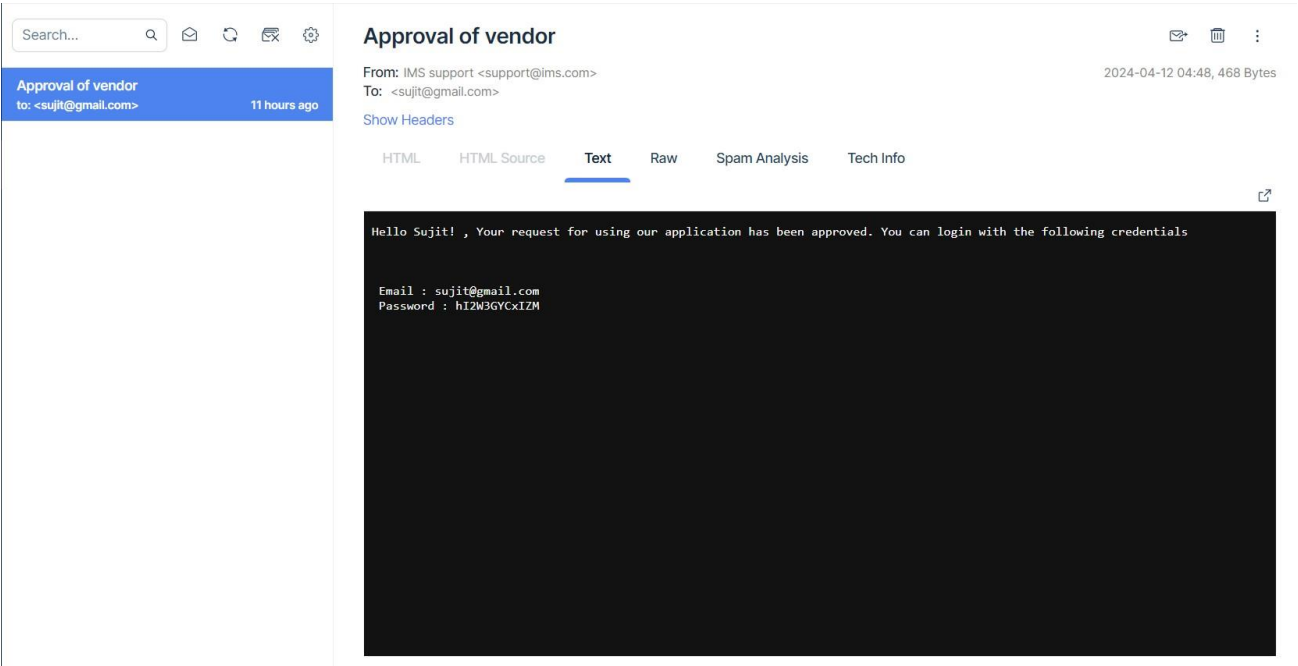


Figure 6.21 Approval Email



## Chapter 7: Testing and Verification

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### 7.1 Testing Plan:

The testing plan would define the approach and objectives for testing the e-commerce website. It would include details such as:

- i. Testing scope and objectives
- ii. Testing team roles and responsibilities
- iii. Test environment setup
- iv. Test data and scenarios
- v. Test case development
- vi. Test execution and reporting
- vii. Defect tracking and management

### 7.2 Testing Strategy:

The testing strategy would define the overall approach for testing the Employee Management website. Here are some possible testing strategies:

1. **Functional Testing:** This type of testing focuses on testing the functionality of the Employee Management website.
2. **Performance Testing:** This type of testing focuses on testing the performance of the Employee Management website, such as load testing, stress testing, and capacity testing.
3. **Security Testing:** This type of testing focuses on testing the security of the Employee Management website, such as vulnerability testing, penetration testing, and data protection testing.
4. **Usability Testing:** This type of testing focuses on testing the usability of the Employee Management website, such as user interface testing, navigation testing, and user experience testing.

### 7.3 Testing Methods:

The testing methods would define the specific techniques used to perform the testing. Here are some possible testing methods:

1. **Manual Testing:** This involves using human testers to perform the testing, such as clicking through the website and manually entering data.
2. **Automated Testing:** This involves using software tools to perform the testing, such as using Selenium to automate website testing.
3. **Exploratory Testing:** This involves using ad-hoc testing methods to explore the website and identify defects.
4. **Regression Testing:** This involves retesting previously tested functionality to ensure that changes or updates have not introduced defects.

### 7.3 Testing Cases:

Test case	Input	Expected output	Actual output	Result
Signup	Enter all details in the form	Validate input & successfully register	Validate input & successfully register	Pass
Log in	Enter Username and password	Successfully log in	Successfully sign in	Pass
Log out	Click on Log out button	Logout from the system	Logout from the system	Pass
Create Invoice	Click to Create Invoice	Redirect to Create Invoice page and new Pending invoice is added.	Redirect to Create Invoice page and new Pending invoice is added.	Pass
Edit Status of Invoice	Click on edit icon to edit particular Invoice detail.	Invoice status detail edited successfully.	Invoice status detail edited successfully.	Pass
Download Invoice	Click on download icon to download particular Invoice.	Download invoice in pdf format on Downloads folder	Download invoice on Downloads folder	Pass
Add Product	Product Details	Product added to products table	Product added to products table	pass

Edit Product	Update the product	Products details updated successfully	Products details updated successfully	pass
Add Customer	Customer Details	Customer added to customers table	Customer added to customers table	pass
Edit Customer	Update the Customer	Customers details updated successfully	Customers details updated successfully	pass
Approve Vendor	Click button to approve vendor	Email is sent to vendor of it's approval with its initial credentials	Email is sent to vendor of it's approval with its initial credentials	pass

*Table 7.1 Test Cases Table*

## Chapter 8: Conclusion and Discussion

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### 8.1 Overall Analysis of Internship / Project Viabilities

The internship activities are about understanding and analysing requirements to follow the pattern of designing solutions with a thorough understanding of the project and requirements of its. In internship I learnt how to write code in industries. Also gain knowledge on how to work with team. We were given projects in the team so the spirit of the team can be learned and with the team, we can achieve great results. Had the opportunity to gain hands-on experience in developing an Vue and Node application, working with databases and integrating various third-party libraries and services into applications. Additionally, has demonstrated a deep understanding of fundamental programming principles such as object-oriented programming, design patterns and best practices.

### 8.2 Summary of Internship / Project Work

Throughout our internship at Argusoft India Ltd., we had the opportunity to gain various technical skills that are highly relevant to the field of Vue Frontend development and Node backend development. These skills included proficiency in the Vue, Javascript, Node programming language, familiarity with frameworks such as Express, Sequelize, experience in designing using CSS, Bootstrap, Vuetify and developing RESTful APIs, database management using SQL database, expertise in debugging and troubleshooting techniques, and exposure to Agile software development methodologies.

We were tasked with building Invoice Management System web applications from scratch and implementing various features. This practical experience allowed us to enhance our problem-solving abilities, apply our technical knowledge to real scenarios, and gain valuable insights into the software development process.

While we encountered some common challenges during our internship, such as initial unfamiliarity with certain technologies, occasional communication gaps with team members, limited feedback and evaluation, the lack of real-world experience, and time management difficulties, we actively sought solutions to overcome these obstacles.

We engaged in self-directed learning to quickly grasp new technologies, proactively communicated with team members to bridge any gaps, sought feedback from mentors and supervisors, actively sought opportunities to gain real-world experience, and developed effective time management strategies to meet project deadlines.

In summary, our internship at Argusoft India Ltd. provided us with a rich and rewarding learning experience. We acquired essential technical and professional skills, gained practical experience in software development, and developed the foundation for a successful career in the field.

## References

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1. Vue Documentation: <https://vuejs.org/>
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4. Vuetify: <https://vuetifyjs.com/en/>
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6. Node: <https://nodejs.org/docs/latest/api/>
7. Sequelize: <https://sequelize.org/>
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