

# **EVYAVAHAAR**

**A Project Report**

*Submitted by*

*Suraj A U*

*20232MCA0181*

*Under the guidance of*

**Mr. Sakthi S**

**Assistant Professor, Presidency School of Computer Science and Engineering**

*in partial fulfillment for the award of the degree*

*of*

**MASTER OF COMPUTER APPLICATIONS**

**At**



**SCHOOL OF INFORMATION SCIENCE**

**PRESIDENCY UNIVERSITY**

**BENGALURU**

**MAY 2025**

# MASTER OF COMPUTER APPLICATIONS

## SCHOOL OF INFORMATION SCIENCE

### PRESIDENCY UNIVERSITY



### CERTIFICATE

This is to certified that the University Major Project “**Evyavahaar**” being submitted by *Suraj A U* bearing roll number *20232MCA0181* in partial fulfillment of requirement for the award of degree of **Master of Computer Applications** is a Bonafide work carried out under my supervision.

---

**Mr. Sakthi S**

Assistant Professor,  
Presidency School of CSE,  
Presidency University.

---

**Dr. W Jaisingh**

Head of the Department (PSIS),  
Presidency School of IS,  
Presidency University.

---

**Dr. R Mahalakshmi**

Associate Dean,  
Presidency School of IS,  
Presidency University.

---

**Dr. Md. Sameeruddin Khan**

Pro- VC and Dean,  
Presidency School of CSE&IS,  
Presidency University.

## **ABSTRACT**

The Evyvahaar system plays a pivotal role in modern retail and service industries by providing a comprehensive platform for transaction processing, inventory management, and data analysis. This research investigates the design and development of POS software, with a primary focus on its functional architecture, backend system integration, and the user interface. The study delves into a comparison of cloud-based versus locally hosted POS solutions, evaluating key factors such as scalability, cost-effectiveness, and security.

Additionally, the paper explores how POS systems contribute to operational efficiency, improving the overall customer experience and supporting business intelligence. The research also highlights the importance of integrating POS systems with third-party services like payment gateways and inventory APIs to streamline operations. A prototype POS application was developed and thoroughly tested to assess its usability, performance, and integration capabilities.

Findings suggest that a well-designed POS system does more than simply streamline sales processes; it also enhances the strategic decision-making of small and medium-sized enterprises (SMEs). With accurate sales data, real-time inventory updates, and insights into customer behavior, businesses can make data-driven decisions that support long-term growth.

### **Key Words:**

- Retail Technology
- Transaction Processing
- Inventory Management
- Business Intelligence
- Cloud-based Systems
- User Interface Design
- POS Software Development
- Payment Integration
- Small and Medium Enterprises (SMEs)

=

## TABLE OF CONTENTS

Abstract	i
Table of Contents	ii
List of Figures	iv
List of Tables	iv
Acknowledgement	v
<b>Chapter No.</b>	<b>Chapter Title</b>
<b>1</b>	<b>INTRODUCTION</b>
	1.1 Overview of Evyvahaar
	1.2 Purpose and vision
	1.3 User-Centric Design
	1.4 Key Modules of Evyavahaar
	1.5 Technological Framework
	1.6 Importance of the Modules
	1.7 Objectives of the Report
<b>2</b>	<b>LITERATURE REVIEW</b>
	2.1 Introduction to Financial Management Systems
	2.2 Historical Context
	2.3 Current Trends in Financial Management Systems
	2.4 Comparative Analysis of Existing Systems
	2.5 Gaps in Existing Literature
<b>3</b>	<b>EXISTING SYSTEMS</b>
	3.1 Overview of Current Financial Management Practices
	3.2 Challenges Faced by Users
	3.3 User Feedback on Existing Systems
<b>4</b>	<b>PROPOSED WORK</b>
	5.1 Overview of Evyavahaar
<b>5</b>	<b>SYSTEM DESIGN</b>

	5.1 Architectural Design	16
	5.2 Database Design	17
	5.3 Use Interface Design	18
<b>6</b>	<b>IMPLIMENTATION</b>	20
	6.1 Development Methodology	20
	6.2 Technology Stack	21
	6.3 Database Design	22
	6.4 Deployment Strategy	22
<b>7</b>	<b>TESTING</b>	36
	7.1 Testing Strategy	36
	7.2 Performance Testing	36
	7.3 Security Testing	36
	7.4 Usability Testing	37
	7.5 Regression Testing	37
	7.6 Compliance Testing	37
	7.7 Automated Testing	37
	7.8 Continuous Testing	38
<b>8</b>	<b>CONCLUSION</b>	39
	8.1 Addressing User Challenges	39
	8.2 Enhancing Compliance and Reporting	39
	8.3 Empowering Organization	40
	8.4 Future Implications	40
	8.5 Final Thoughts	41
	<b>APPENDIX</b>	42
	Outcomes	49
	Screenshots	44
	<b>REFERENCES</b>	52

## LIST OF FIGURES

Figure No	Figure Name	Page No.
6.1	Workflow diagram	27
6.2	Overview Diagram	31
A	Sign Up and Login Page	45
B	Admin Dashboard	45
C	Forgot Password Page	46
D	New Sales	46
E	Graphical Representation	47
F	New Purchase	47
G	Delivery Challan	48
H	New Estimate	48
I	New Customer	49
J	New Proforma Invoice	49
K	Add Vendor	50
L	Create Expense	50
M	Stock List	51

## LIST OF TABLES

Table No	Table Name	Page No.
2.1	Literature Survey	9
4.1	Objectives	13
4.2	Key Features of Evyavahaar	14
5.2.1	Key Entities of Database Design	17
6.1	Key Entities of Financial Database	25

## ACKNOWLEDGEMENT

The completion of project work brings with great sense of satisfaction, but it is never completed without thanking the persons who are all responsible for its successful completion. First and fore most we indebted to the GOD ALMIGHTY for giving us the opportunity to excel our efforts to complete this project on time. We wish to express our deep sincere feelings of gratitude to our Institution, Presidency University, for providing us opportunity to do our education.

We express our sincere thanks to our respected dean **Dr. Md. Sameeruddin Khan**, Pro-Vice Chancellor, School of Engineering, and Dean, Presidency School of CSE and IS, Presidency University for getting us permission to undergo the project.

We record our heartfelt gratitude to our beloved professor **Dr. R Mahalakshmi**, Associate Dean, Presidency School of Information Science, **Dr W. Jaisingh**, Professor and Head, Presidency School of Information Science, Presidency University for rendering timely help for the successful completion of this project.

We sincerely thank our project guide, **Ms. Sakthi S**, Assistant Professor, School of Computer Science and Engineering, for his guidance, help and motivation. Apart from the area of work, we learnt a lot from him, which we are sure will be useful in different stages of our life. We would like to express our gratitude to **Faculty Coordinators and Faculty**, for their review and many helpful comments.

We would like to acknowledge the support and encouragement of our friends.

*Student Name*

*ID Number*

**Suraj A U**

**20232MCA0181**

# CHAPTER-1

## INTRODUCTION

### 1.1 Overview of Evyvahaar

Evyvahaar is an advanced, cloud-based business management and POS (Point of Sale) platform specifically developed for small and medium-sized enterprises (SMEs). Designed with flexibility and scalability in mind, Evyvahaar addresses common challenges faced by businesses in managing daily operations, transactions, inventory, and financial reporting.

In the rapidly evolving digital economy, businesses—especially in the retail and service sectors—must streamline their workflows to remain competitive. Manual or outdated systems often lead to inefficiencies, errors, and a lack of real-time data, all of which hinder decision-making and business growth. Evyvahaar counters these issues by providing a centralized, automated, and user-friendly platform.

The system integrates key business functions into one interface, allowing organizations to optimize operational workflows, improve financial accuracy, and gain insightful analytics to support growth strategies. With its modern web-based interface, Evyvahaar is accessible from any device, ensuring mobility, security, and high performance.

### 1.2 Purpose and Vision

**Purpose:** The core purpose of Evyvahaar is to create a comprehensive digital solution that enables SMEs to manage their critical operations with ease. It replaces fragmented manual systems and non-integrated legacy software with a single unified platform. The key operational areas that Evyvahaar aims to streamline include:

- Sales and Transaction Management
- Inventory Control
- Financial Monitoring and Reporting
- Customer Engagement

By automating these functions, Evyvahaar allows business owners to save time, reduce errors, cut operational costs, and focus on strategic goals.

Evyvahaar envisions becoming the go-to business management platform for SMEs worldwide. Its long-term goals include:

- Empowering businesses to scale rapidly without increasing complexity
- Providing real-time insights to make informed decisions
- Supporting multilingual and region-specific customizations



- Staying compliant with industry regulations such as PCI-DSS and GDPR
- Delivering a secure and adaptable system that evolves with business needs

The vision extends to developing a platform that bridges the gap between traditional retail practices and the demands of a modern digital-first economy.

### 1.3 User-Centric Design

One of the most appreciated features of Evyvahaar is its user-centric approach. The platform is designed with users of all technical skill levels in mind—from business owners and managers to sales clerks and inventory handlers.

- **Key Aspects of the User Interface:**
  - **Simplicity and Accessibility:** Minimal training is required for new users.
  - **Dashboard View:** Offers an at-a-glance overview of business metrics such as sales volume, inventory status, and revenue trends.
  - **Customizability:** Users can tailor the dashboard and modules to suit specific needs.
  - **Mobile and Tablet Compatibility:** Responsive design ensures access across devices.
  - **Language Options:** Multilingual support enables usability across regions.

Evyvahaar's interface is intuitive, allowing users to complete everyday tasks like processing sales, adding inventory, or generating reports without relying on IT support.

### 1.4 Key Modules of Evyvahaar

The functionality of Evyvahaar is distributed across several interdependent modules. Each module plays a vital role in ensuring seamless business operations.

- **Transaction Processing Module**
  - Handles sales, payments, returns, and digital receipts
  - Accepts multiple payment methods—cash, credit/debit cards, UPI, mobile wallets
  - Integrates with accounting systems to auto-update financial records
  - Offers fast transaction speed and reduces checkout time
  - Logs all transactions for future auditing and tracking
- **Inventory Management Module**
  - Tracks inventory in real-time
  - Supports auto-reordering when stock is low
  - Provides alerts and notifications for expiry dates or low stock
  - Analyzes trends to optimize stock purchasing
  - Prevents issues like stockouts and overstocking

- **Financial Reporting Module**

- Automatically generates reports like:
- Profit & Loss Statements
- Balance Sheets
- Cash Flow Reports
- Reports can be filtered by date, department, or item category
- Allows for comparative analysis over time
- Helps businesses maintain regulatory compliance
- Supports export options (PDF, Excel, CSV)

### **1.5 Technological Framework**

Evyvahaar is built on a modern technology stack that provides both performance and scalability. The key technical elements include:

- **Cloud-Based Infrastructure**
  - Ensures 24/7 accessibility
  - Reduces dependency on physical infrastructure
  - Provides automatic backups and updates
- **Scalability**
  - Designed to handle increased loads as businesses grow
  - Modular architecture allows for easy addition of features
- **Security**
  - SSL Encryption protects data during transmission
  - Role-Based Access Control (RBAC) ensures only authorized users can access sensitive features
  - Multi-factor authentication (MFA) available for admin-level users
  - Adheres to GDPR and PCI-DSS standards
  - Secure data storage and user session management

### **1.6 Importance of the Modules**

The modules of Evyvahaar are not standalone components—they work in synergy to provide a smooth business operation flow.

- **Transaction Processing**
  - Backbone of the platform
  - Ensures accuracy and efficiency in sales and payment handling
  - Integrates with inventory and financial modules for real-time data updates

- Helps in generating daily sales summaries and audit trails
- **Inventory Management**
  - Helps avoid over-purchasing or understocking
  - Ensures that customers always find products available
  - Reduces wastage, especially in perishable goods
  - Facilitates warehouse and multi-location inventory management
- **Financial Reporting**
  - Provides clear visibility into financial health
  - Reduces dependency on external accountants
  - Enables timely decisions on budgeting, cost-cutting, and investments
  - Enhances business transparency and compliance

### 1.7 Objectives of the Report

The report aims to explore the Evyvahaar platform comprehensively. The core objectives are:

- **To Analyze the Functionalities of Key Modules**
  - Deep dive into the features, workflows, and real-time operations of the Transaction Processing, Inventory Management, and Financial Reporting modules.
- **To Evaluate User Experience and Satisfaction**
  - Assess the usability, design intuitiveness, and user feedback to measure satisfaction.
- **To Provide Recommendations for Future Development**
  - Suggest new features and improvements based on analysis and user expectations to enhance platform relevance and performance.
- **To Assess Security and Compliance Measures**
  - Evaluate the security architecture, encryption, and compliance with data protection regulations.

## CHAPTER-2

### LITURATURE REVIEW

#### 2.1 Introduction to Financial Management Systems

Financial management systems (FMS) are software solutions designed to assist organizations in managing their financial operations efficiently. These systems facilitate various functions, including budgeting, accounting, financial reporting, and compliance. The evolution of FMS has been driven by the need for organizations to streamline their financial processes, improve accuracy, and enhance decision-making capabilities.

- **Importance of Financial Management Systems:** FMS play a crucial role in the overall health of an organization. They provide a centralized platform for managing financial data, which helps organizations:
  - **Enhance Accuracy:** By automating data entry and calculations, FMS reduce the likelihood of human error, leading to more accurate financial records.
  - **Improve Efficiency:** Automation of routine tasks allows finance teams to focus on strategic activities, such as financial analysis and planning, rather than manual data entry.
  - **Facilitate Compliance:** FMS help organizations adhere to regulatory requirements by providing features for audit trails, reporting, and data security.
  - **Support Decision-Making:** With real-time access to financial data and analytics, organizations can make informed decisions quickly, responding to market changes and internal needs.

#### 2.2 Historical Context

Historically, financial management was conducted manually, relying on spreadsheets and paper-based records. This approach was prone to errors, inefficiencies, and difficulties in data retrieval. The advent of computerized accounting systems in the late 20th century marked a significant shift, allowing organizations to automate many financial processes.

- **Evolution of Financial Management Practices**
  - **Manual Processes:** Before the introduction of FMS, financial management involved manual bookkeeping, which was time-consuming and error-prone. Organizations often struggled with data accuracy and retrieval, leading to delays in reporting and decision-making.
  - **Introduction of Computerized Systems:** The late 20th century saw the emergence of computerized accounting systems, which allowed for the automation of basic financial tasks. These early systems were often standalone applications, focusing on specific functions such as payroll or invoicing.

- **Integration of Functions:** As technology advanced, the integration of various financial functions into comprehensive platforms became increasingly common. This shift allowed organizations to manage all aspects of their financial operations within a single system, improving data consistency and accessibility.

### 2.3 Current Trends in Financial Management Systems

Recent trends in FMS reflect the changing needs of organizations and advancements in technology. Key trends include:

- **Cloud Computing:** Many organizations are migrating to cloud-based solutions, which offer scalability, accessibility, and reduced IT overhead. Cloud FMS allows users to access financial data from anywhere, facilitating remote work and collaboration. Benefits of cloud computing in FMS include:
  - **Cost-Effectiveness:** Cloud solutions often operate on a subscription model, reducing the need for significant upfront investments in hardware and software.
  - **Scalability:** Organizations can easily scale their FMS as their needs grow, adding users and functionalities without the need for extensive infrastructure changes.
  - **Accessibility:** Cloud-based systems enable users to access financial data from any device with an internet connection, promoting collaboration among remote teams.
- **Real-Time Data Processing:** Modern FMS provide real-time updates, enabling organizations to monitor their financial position continuously. This capability is crucial for timely decision-making and financial planning. Key advantages include:
  - **Immediate Insights:** Real-time data allows organizations to respond quickly to financial changes, such as cash flow fluctuations or unexpected expenses.
  - **Enhanced Reporting:** Users can generate up-to-date financial reports at any time, facilitating more accurate forecasting and strategic planning.
- **Artificial Intelligence and Automation:** AI technologies are being integrated into FMS to automate routine tasks, such as data entry and reconciliation. This reduces the risk of human error and frees up staff for more strategic activities. Benefits of AI integration include:
  - **Predictive Analytics:** AI can analyze historical data to identify trends and make predictions about future financial performance, aiding in budgeting and forecasting.
  - **Automated Workflows:** Automation of repetitive tasks, such as invoice processing and expense approvals, streamlines operations and improves efficiency.
- **Regulatory Compliance:** With increasing regulatory scrutiny, FMS must ensure compliance with accounting standards and regulations. This includes features for audit trails, reporting, and data security.

Key considerations include:

- **Audit Trails:** Comprehensive audit trails help organizations track financial transactions and ensure accountability, which is essential for compliance with regulations such as Sarbanes-Oxley.
- **Data Security:** FMS must implement robust security measures to protect sensitive financial data from breaches and unauthorized access, ensuring compliance with data protection regulations.

## 2.4 Comparative Analysis of Existing Systems

Several financial management systems are currently available in the market, each with its own strengths and weaknesses. A comparative analysis of these systems can provide insights into their functionalities and suitability for different organizational needs.

- **QuickBooks:** QuickBooks is a widely used accounting software for small to medium-sized businesses. It offers features for invoicing, expense tracking, and financial reporting but may lack advanced functionalities for larger organizations. Key features include:
  - **User -Friendly Interface:** QuickBooks is known for its intuitive design, making it accessible for users with varying levels of accounting knowledge.
  - **Integration Capabilities:** It integrates with various third-party applications, enhancing its functionality and allowing businesses to customize their financial management processes.
  - **Limitations:** While suitable for smaller businesses, QuickBooks may struggle with scalability and complex financial requirements, making it less ideal for larger enterprises.
- **SAP ERP:** SAP ERP is a comprehensive enterprise resource planning solution that includes robust financial management capabilities. While powerful, it can be complex and costly to implement. Key features include:
  - **Comprehensive Functionality:** SAP ERP offers a wide range of financial management tools, including budgeting, forecasting, and compliance management.
  - **Customization Options:** Organizations can tailor the system to meet their specific needs, although this often requires significant time and resources.
  - **Challenges:** The complexity of SAP ERP can lead to longer implementation times and a steeper learning curve for users, which may deter smaller organizations.
- **Xero:** Xero is a cloud-based accounting software that emphasizes usability and collaboration. It is suitable for small businesses but may not meet the needs of larger enterprises with complex financial requirements. Key features include:
  - **Collaboration Tools:** Xero allows multiple users to access financial data simultaneously, promoting teamwork and collaboration among finance teams.

- **Mobile Accessibility:** The platform offers mobile applications, enabling users to manage finances on the go.
- **Limitations:** While Xero is user-friendly, it may lack some advanced features required by larger organizations, such as extensive reporting capabilities and multi-currency support.

## 2.5 Gaps in Existing Literature

While existing literature highlights the benefits of financial management systems, there are gaps in understanding user experiences and the specific needs of different organizations. Many studies focus on technical features rather than the practical implications of using these systems in real-world scenarios. Key gaps include:

- **User Experience Insights**
  - **Limited Research on User Feedback:** There is a lack of comprehensive studies that analyze user feedback and satisfaction with various FMS, which is crucial for understanding how these systems perform in practice.
  - **Diverse Organizational Needs:** Different organizations have unique financial management requirements based on their size, industry, and operational complexity. Existing literature often fails to address these diverse needs adequately.
- **Practical Implementation Challenges**
  - **Real-World Application:** Many studies focus on theoretical aspects of FMS without exploring the challenges organizations face during implementation and daily use.
  - **Adaptation to Change:** Research on how organizations adapt to new financial management systems and the training required for successful adoption is limited.

Sl No.	Title Of Paper	Year	Methodology Used	Challenges Faced	Advantages	Disadvantages
1	System Initialization and Role-Based Access Control in Financial Platforms	2023	Automated system setup, role-based access control (RBAC) implementation	Security vulnerabilities in manual configuration, lack of user access restrictions	Enhances security, reduces manual errors, ensures compliance	Implementation complexity for non-technical users
2	Automated Financial Management and General Ledger Systems in Cooperative Societies	2022	Financial tracking, reconciliation, and compliance-integrated reporting	Difficulty in integrating automation with legacy systems	Improves accuracy, efficiency, and decision-making	High initial cost of implementation
3	Gaps in Financial Customization for Cooperatives: A Study on Existing Solutions	2024	Comparative analysis of existing financial software and customization needs	Lack of tailored solutions for cooperative accounting	Highlights the need for an integrated and customizable financial system	Limited real-world case studies on cooperative-specific financial models

Table 2.1 Literature Survey



## CHAPTER-3

### EXISTING SYSTEMS

#### 3.1 Overview of Current Financial Management Practices

Before the implementation, many organizations relied on traditional methods for financial management, including manual bookkeeping and standalone software applications. These practices often led to inefficiencies, inaccuracies, and difficulties in generating timely financial reports.

- **Manual Bookkeeping:** Manual bookkeeping involved recording financial transactions by hand in ledgers or spreadsheets. While this method was common in smaller organizations, it presented several challenges:
  - **Labor-Intensive:** Manual data entry required significant time and effort, particularly for organizations with high transaction volumes. Staff spent hours inputting data, which could have been better utilized for strategic financial analysis.
  - **Error-Prone:** Human error was a common issue in manual bookkeeping. Mistakes in data entry could lead to inaccurate financial records, resulting in misinformed decision-making and potential compliance issues.
- **Standalone Software Applications:** Many organizations turned to standalone software applications to manage specific financial functions, such as accounting, payroll, or invoicing. While these applications offered some automation, they also had limitations:
  - **Lack of Integration:** Standalone applications often operated in isolation, leading to data silos where information was not shared across systems. This fragmentation made it difficult for organizations to obtain a comprehensive view of their financial performance.
  - **Inconsistent Data:** When different departments used separate systems, inconsistencies in data entry and reporting could arise. This lack of uniformity complicated financial analysis and reporting.
- **Consequences of Traditional Practices:** The reliance on manual processes and fragmented systems resulted in several negative consequences for organizations:
  - **Inefficiencies:** Time-consuming manual tasks and the need for data reconciliation led to inefficiencies that hindered overall productivity.
  - **Delayed Reporting:** Organizations often struggled to generate timely financial reports, which delayed critical insights for management and hindered strategic decision-making.
  - **Increased Compliance Risks:** The manual nature of traditional practices made it challenging to ensure compliance with accounting standards and regulations, increasing

the risk of audits and penalties.

### 3.2 Challenges Faced by Users

- **Manual Processes**
  - **Time-Consuming:** Manual data entry and reconciliation processes are labor-intensive and prone to human error. Staff members often spent excessive time on routine tasks, which could lead to burnout and decreased morale.
  - **Lack of Real-Time Insights:** Organizations often struggled to obtain real-time financial data, hindering timely decision-making. Without access to up-to-date information, management could not respond quickly to changing financial conditions or market dynamics.
- **Fragmented Systems**
  - **Data Silos:** Many organizations used multiple software solutions for different financial functions, leading to data silos and inconsistencies. For example, sales data recorded in one system might not align with financial data in another, complicating financial analysis.
  - **Integration Issues:** The lack of integration between systems made it challenging to obtain a holistic view of financial performance. Organizations often faced difficulties in consolidating data for reporting purposes, leading to delays and inaccuracies.
- **Compliance and Reporting Challenges**
  - **Regulatory Compliance:** Organizations faced difficulties in ensuring compliance with accounting standards and regulations due to manual processes. The risk of non-compliance increased as organizations struggled to maintain accurate records and documentation.
  - **Reporting Delays:** Generating financial reports often took significant time, delaying critical insights for management. The inability to produce timely reports hindered strategic planning and decision-making, as management lacked the necessary information to make informed choices.

### 3.3 User Feedback on Existing Systems

User feedback indicated a strong desire for a more integrated and user-friendly financial management solution. Common requests included:

- **Automation of Routine Tasks**
  - **Need for Automation:** Users expressed a need for automation to reduce manual data entry and improve accuracy. Automating routine tasks, such as invoice processing and transaction recording, would free up staff to focus on higher-value activities, such as financial analysis and strategic planning.
  - **Error Reduction:** Automation would help minimize human error, ensuring that financial

records are accurate and reliable. Users recognized that reducing errors in data entry could lead to more trustworthy financial reporting.

- **Real-Time Reporting**

- **Desire for Real-Time Insights:** The ability to generate real-time financial reports was a top priority for users seeking timely insights. Users wanted to access up-to-date information on their financial position, enabling them to make informed decisions quickly.
- **Enhanced Decision-Making:** Real-time reporting capabilities would empower management to respond promptly to changes in financial conditions, improving overall decision-making and strategic planning.
- **Enhanced User Experience - Intuitive Interface:** Users desired a more intuitive interface that would simplify navigation and reduce training time. A user-friendly design would enable staff to quickly adapt to the system, minimizing the learning curve associated with new software.
- **Customization Options:** Feedback indicated a preference for customizable dashboards and reporting features that would allow users to tailor the system to their specific needs. This flexibility would enhance user satisfaction and improve overall efficiency.
- **Support and Training:** Users expressed the need for comprehensive support and training resources to facilitate a smooth transition to a new financial management system. Access to tutorials, documentation, and responsive customer support would help users maximize the benefits of the system.

## CHAPTER-4

### PROPOSED WORK

#### 4.1 Overview of Evyavahaar

Evyavahaar is designed to address the challenges faced by organizations in financial management. The platform integrates key modules—Initialization and Configuration, General Ledger, and Financial Statements—to provide a comprehensive solution that streamlines financial processes and enhances user experience. By leveraging modern technology, aims to transform traditional financial management practices into efficient, automated, and user- friendly operations.

- **Key Modules**

- **Initialization and Configuration:** This module allows users to set up their financial environment, manage user accounts, and configure system settings tailored to their organizational needs.
- **General Ledger:** Serving as the core of the financial management system, the General Ledger module records all financial transactions, providing real-time updates and integration with other modules.
- **Financial Statements:** This module enables users to generate essential financial reports, ensuring compliance with accounting standards and providing insights into the organization's financial health.

The primary objectives of the Evyavahaar platform include as shown in table 4.1:

SI No.	Objective	Description
1	Integration	To unify various financial functions into a single platform, eliminating data silos and ensuring consistency across financial operations.
2	Automation	To automate routine tasks such as data entry, transaction recording, and report generation, thereby reducing the risk of human error and saving time.
3	Real-Time Insights	To provide users with real-time access to financial data, enabling timely decision-making and strategic planning.
4	User -Centric Design	To develop an intuitive user interface that enhances usability and minimizes the learning curve for new users.

**Table 4.1 Objectives of the Proposed System**

- **Detailed Objectives**

- **Integration:** By consolidating various financial functions into a single platform, Evyavahaar aims to eliminate the inefficiencies associated with using multiple disparate systems. This integration will ensure that all financial data is consistent and easily accessible, facilitating better analysis and reporting.
- **Automation:** Automating routine tasks will significantly reduce the time spent on manual data entry and reconciliation. This not only minimizes the risk of human error but also allows finance teams to focus on more strategic activities, such as financial analysis and forecasting.
- **Real-Time Insights:** Providing real-time access to financial data is crucial for organizations to make informed decisions quickly. Evyavahaar will enable users to monitor their financial position continuously, allowing for proactive management of resources and risks.
- **User -Centric Design:** A user-friendly interface is essential for ensuring that all users, regardless of their technical expertise, can navigate the system effectively. Evyavahaar will prioritize usability, offering intuitive navigation and comprehensive support resources.

Evyavahaar will incorporate several key features designed to enhance its functionality and user experience as shown in table 4.2:

SI No.	Feature	Description
1	Modular Architecture	The system will be built with a modular architecture, allowing organizations to implement only the modules they need while providing the flexibility to add more in the future. This approach ensures that organizations can tailor the system to their specific requirements.
2	Customizable Dashboards	Users will have the ability to create personalized dashboards that display key financial metrics and reports relevant to their roles. This feature enhances user engagement and allows for quick access to critical information.
3	Advanced Reporting Tools	The platform will include advanced reporting tools that allow users to generate customizable financial statements and analytics with ease. Users can filter data based on various criteria, such as date ranges, departments, or project codes, enabling more targeted analysis.
4	Real-Time Data	Evyavahaar will provide real-time updates to ensure that users have

	Processing	access to the most current financial information. This capability is essential for effective decision-making and financial planning.
5	Compliance Features	The system will include features to ensure compliance with relevant accounting standards and regulations, such as audit trails and automated reporting. This will help organizations maintain transparency and accountability in their financial operations.
6	User Support and Training	Comprehensive help documentation, tutorials, and customer support will be available to assist users in navigating the platform and maximizing its capabilities. This support is crucial for ensuring a smooth transition to the new system.

**Table 4.2 Key Features of Evyavahaar**

- **Additional Features**

- **Mobile Accessibility:** Evyavahaar will be designed to be accessible on mobile devices, allowing users to manage their financial operations on the go. This feature is particularly beneficial for organizations with remote teams or those that require flexibility in accessing financial data.
- **Data Security:** The platform will implement robust security measures to protect sensitive financial information. This includes encryption, user authentication, and regular security audits to ensure data integrity and confidentiality.
- **Integration with Third-Party Applications:** Evyavahaar will support integration with popular third-party applications, such as CRM systems and e-commerce platforms, to streamline data flow and enhance overall functionality.
- **Scalability:** The system will be designed to scale with the organization's growth, accommodating increasing transaction volumes and additional users without compromising performance.

## CHAPTER-5

### SYSTEM DESIGN

#### 5.1 Architectural Design

The architectural design of Evyavahaar will follow a client-server model, which is a widely adopted architecture for web-based applications. This model consists of two main components: the client interface and the centralized server.

- **Client-Server Model**
  - **Client Interface:** The client interface will be a web-based application accessible through standard web browsers. Users will interact with the system via this interface, which will provide a user-friendly experience for managing financial operations. The client-side will handle user inputs, display data, and communicate with the server for data processing. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.
  - **Centralized Server:** The server will be responsible for processing requests from the client, managing business logic, and storing data in a secure database. This centralized approach allows for efficient data management and ensures that all users access the same up-to-date information. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.
- **Scalability and Maintenance**
  - **Scalability:** The client-server architecture allows Evyavahaar to scale easily as the number of users and transactions increases. The server can be upgraded with additional resources (CPU, memory, storage) to handle higher loads without affecting performance.
  - **Easy Updates and Maintenance:** Centralizing the application logic on the server simplifies updates and maintenance. When new features or bug fixes are implemented, they can be deployed on the server without requiring users to update their client applications. This ensures that all users benefit from the latest enhancements immediately.

- **Session Management:** The server will manage user sessions to ensure that only authenticated users can access the system. This includes implementing timeout features to log users out after a period of inactivity.

## 5.2 Database Design

A relational database will be utilized to store financial data securely. The database will be designed to ensure data integrity, consistency, and security. Key entities in the database will include as shown in table 5.2.1:

Sl No.	Entity	Description
1	Users	This table will store information about user accounts, including usernames, passwords (hashed), roles, and permissions. It will also track user activity and last login timestamps.
2	Transactions	This table will record all financial transactions, categorized by type (e.g., sales, purchases, expenses) and date. Each transaction will include details such as amount, associated accounts, and descriptions.
3	Reports	This table will store templates and generated reports for financial statements and analytics. It will include metadata such as report type, creation date, and user who generated the report.
4	Settings	This table will hold system configuration settings, such as fiscal year definitions, currency preferences, and tax rates. This allows for easy updates and customization based on organizational needs.

**Table 5.2.1 Key Entities of Database Design**

- **Relationships Between Entities**
  - **User -Transaction Relationship:** Each transaction will be linked to a user who recorded it, allowing for accountability and audit trails. This relationship will help track who made changes to financial data.
  - **Report-Transaction Relationship:** Reports will be generated based on transactions, allowing users to analyze specific data sets. This relationship will facilitate the generation of customized reports based on user-defined criteria.
- **Data Security Measures**
  - **Access Control:** The database will implement role-based access control to ensure that users can only access data relevant to their roles. For example, an accountant may have access to transaction data, while a manager may have access to reports.



- **Data Encryption:** Sensitive data, such as user passwords and financial information, will be encrypted to protect against unauthorized access. This includes using hashing algorithms for passwords and encryption standards for stored data.

### 5.3 User Interface Design

The user interface (UI) of Evyavahaar will be designed with a focus on usability, ensuring that users can navigate the system efficiently and effectively. Key design elements will include:

- **Navigation Menus**
  - **Clear and Intuitive Navigation:** The UI will feature clear and intuitive navigation menus that allow users to access different modules and functionalities easily. This includes dropdown menus, sidebars, and breadcrumb navigation to help users understand their current location within the application.
  - **Module Access:** Users will be able to switch between modules (e.g., Initialization and Configuration, General Ledger, Financial Statements) with minimal clicks, enhancing the overall user experience.
- **Responsive Design**
  - **Adaptive Layout:** The user interface will employ a responsive design that adapts to various devices, ensuring accessibility for users on desktops, tablets, and smartphones. This approach will provide a consistent experience across different screen sizes and resolutions.
  - **Touch-Friendly Elements:** For mobile users, the UI will include touch-friendly elements, such as larger buttons and simplified navigation, to enhance usability on touchscreen devices.
- **Visual Design**
  - **Consistent Branding:** The visual design will reflect the organization's branding, incorporating colors, logos, and fonts that align with the company's identity. This consistency will help users feel familiar and comfortable while using the platform. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.
  - **User Feedback Mechanisms:** The interface will include visual feedback mechanisms, such as loading indicators and confirmation messages, to inform users about the status of their actions. This will enhance user confidence and

satisfaction. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.

- **Accessibility Features**

- **Keyboard Navigation:** The UI will support keyboard navigation to accommodate users with disabilities, ensuring that all functionalities can be accessed without a mouse.
- **Screen Reader Compatibility:** The design will be compatible with screen readers, providing alternative text for images and ensuring that all content is accessible to visually impaired users.

## CHAPTER-6

### IMPLEMENTATION

#### 6.1 Development Methodology

The development of Evyavahaar will follow an Agile methodology, which is characterized by iterative development, collaboration, and flexibility. This approach allows for continuous feedback from stakeholders and ensures that the system evolves based on user needs and changing requirements.

- **Key Principles of Agile Methodology**

- **Iterative Development:** Agile promotes the development of the system in small, manageable increments called iterations or sprints. Each sprint typically lasts 2–4 weeks and results in a potentially shippable product increment. This allows the development team to focus on delivering specific features or improvements within a short timeframe and ensures early delivery of value.
- **Continuous Feedback:** Regular feedback from stakeholders, including end users, management, and IT staff, is integral to the Agile process. This feedback is gathered through sprint reviews, demos, and user testing sessions, enabling the team to make necessary adjustments and enhancements based on real-world usage and expectations.
- **Collaboration:** Agile emphasizes collaboration among cross-functional teams, including developers, designers, testers, product owners, and business analysts. Daily stand-up meetings and shared workspaces promote open communication and alignment, ensuring that all perspectives are considered throughout development.
- **Flexibility:** Agile allows for changes in requirements even late in the development process. This adaptability is crucial for responding to evolving user needs, market shifts, or business priorities, ensuring that the final product remains relevant and valuable.
- **Customer Involvement:** Agile encourages direct and ongoing involvement of the customer or product owner throughout the project. This ensures that development priorities are driven by actual business needs and user stories are refined and clarified in real time.
- **Prioritization of Features:** Agile teams use tools like product backlogs and sprint planning to prioritize tasks based on business value. High-priority features are

developed and delivered first, ensuring the most critical components are implemented early.

- **Transparency:** Agile promotes visibility into the development process through tools like task boards, burndown charts, and sprint reviews. This helps all stakeholders track progress and identify potential blockers early.
  - **Testing and Quality Assurance:** Agile incorporates continuous testing throughout development, often with automated testing tools and test-driven development (TDD). This ensures that each iteration maintains high quality and reduces the risk of defects accumulating over time.
  - **Sustainable Pace:** Agile encourages maintaining a consistent work pace, avoiding burnout and promoting long-term productivity. Teams are encouraged to take on only as much work as they can complete comfortably within a sprint.
  - **Retrospectives and Continuous Improvement:** At the end of each sprint, teams hold retrospectives to reflect on what went well, what didn't, and how to improve. This cycle of self-assessment fosters a culture of continuous learning and process refinement.
- **Agile Frameworks:** Evyavahaar may adopt specific Agile frameworks, such as Scrum or Kanban, to structure the development process:
    - **Scrum:** This framework involves defined roles (Scrum Master, Product Owner, Development Team) and ceremonies (sprint planning, daily stand-ups, sprint reviews, and retrospectives) to facilitate effective project management and team collaboration.
    - **Kanban:** This approach focuses on visualizing the workflow and managing work in progress. It allows teams to prioritize tasks and improve efficiency by limiting the number of concurrent tasks.

## 6.2 Technology Stack

The technology stack for Evyavahaar will be carefully selected to ensure optimal performance, scalability, and maintainability. The stack will include the following components:

- **Frontend**
  - **HTML, CSS, and JavaScript:** These foundational technologies will be used to build the user interface of Evyavahaar. HTML will structure the content, CSS will handle the styling, and JavaScript will enable interactivity.
  - **JavaScript Frameworks:** To enhance the user experience and streamline development, a modern JavaScript framework such as React or Angular will be utilized. These

frameworks provide powerful tools for building dynamic, responsive user interfaces and managing application state efficiently.

- **React:** A popular library for building user interfaces, React allows for the creation of reusable components, making it easier to manage complex UIs and improve development speed.
- **Angular:** A comprehensive framework that provides a robust set of tools for building single-page applications (SPAs). Angular includes features such as dependency injection, routing, and form handling, which can accelerate development.
- **Backend**
  - **Server-Side Language:** A server-side language such as Node.js or PHP will be used to handle business logic and data processing. The choice of language will depend on factors such as team expertise, performance requirements, and integration capabilities.
  - **Node.js:** A JavaScript runtime that allows for building scalable network applications. Its non-blocking I/O model makes it suitable for handling multiple concurrent connections, which is beneficial for web applications.
  - **PHP:** A widely-used server-side scripting language that is particularly well-suited for web development. PHP has a large ecosystem of libraries and frameworks, such as Laravel, which can accelerate development.

### 6.3 Database Design

Evyavahaar will utilize a relational database management system (RDBMS) for data storage, ensuring robust data integrity, support for complex queries, and scalability. The chosen database will be MySQL, which will be managed using XAMPP, a popular open-source cross-platform web server solution stack package.

- **Relational Database Management System (RDBMS)**

An RDBMS is a type of database management system that stores data in tables with rows and columns, enforcing relationships between data entities using keys. It ensures data integrity, supports SQL (Structured Query Language), and is widely used in enterprise and web applications.

- **MySQL**

MySQL is an open-source RDBMS known for its speed, reliability, and ease of deployment, making it a popular choice for a wide range of web-based and enterprise applications, including Evyavahaar

Key Features of MySQL:

- **High Performance:** MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Data Integrity:** Supports full ACID compliance when using InnoDB storage engine, ensuring reliable and consistent transactions. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Scalability:** Efficiently handles large databases and high traffic applications, supporting horizontal scaling through replication. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Replication:** MySQL supports master-slave and master-master replication for load balancing, fault tolerance, and backup. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Security:** Offers strong data protection features like user privilege management, SSL support, and data encryption. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Cross-Platform Support:** Runs on various operating systems including Windows, Linux, and macOS. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.
- **Community and Enterprise Editions:** The community edition is open-source and widely supported, while the enterprise edition offers enhanced tools and technical support.
- **Ease of Integration:** Easily integrates with programming languages like PHP, Python, Java, and platforms like WordPress and Joomla. MySQL is designed for fast data processing and is well-optimized for read-heavy workloads.

- **PostgreSQL**

PostgreSQL is another powerful, open-source RDBMS known for its standards compliance, advanced features, and robust data integrity mechanisms. Though MySQL is the primary database for Evyavahaar, PostgreSQL offers additional capabilities useful in complex and data-intensive environments. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.

Key Features of PostgreSQL:

- **Extensibility:** Allows the creation of custom data types, operators, index types, and even procedural languages.
- **Complex Queries:** Supports advanced SQL features like window functions, common table expressions (CTEs), full-text search, and recursive queries.
- **Support for JSON and XML:** Enables semi-structured data storage and querying using JSONB and XML types, ideal for hybrid data models.
- **MVCC (Multi-Version Concurrency Control):** Provides high concurrency without read locks, ensuring better performance in multi-user environments.
- **Data Integrity and Validation:** Enforces strict data types, constraints, foreign keys, and triggers, supporting complex business rules.
- **Geospatial Data Support:** Integrated with PostGIS extension for handling geographic objects, useful in applications requiring mapping and spatial analysis.
- **Robust Security Features:** Includes features like row-level security, authentication methods (LDAP, Kerberos, SCRAM), and fine-grained access control.
- **Advanced Indexing:** Supports B-tree, Hash, GiST, SP-GiST, GIN, and BRIN indexes for optimized query performance on different data types.

These RDBMS solutions provide the **foundation for secure, scalable, and high-performing data management** in the Evyavahaar system. While **MySQL** is ideal for general use and performance-critical applications, **PostgreSQL** is particularly suited for **complex queries, custom data structures, and advanced reporting requirements**, making them a complementary choice in a multi-database architecture.

- **XAMPP for Database Connection:** To facilitate the development and testing of Evyavahaar, XAMPP will be used as the local server environment. XAMPP is a free and open-source cross-platform web server solution stack package that includes:
  - **Apache HTTP Server:** The web server that will host the Evyavahaar application, allowing users to access the platform through their web browsers.
  - **MySQL Database:** XAMPP includes MySQL as its database management system, providing a convenient way to manage and interact with the database during development.
  - **PHP:** The server-side scripting language that will be used to handle business logic and data processing within the Evyavahaar application.

- **phpMyAdmin:** A web-based interface for managing MySQL databases, allowing developers to easily create, modify, and query databases without needing to use command-line tools.

The database will be designed to store essential financial data securely. Key entities will include as shown in figure 6.1:

SI No.	Entity	Description
1	Users	This table will store information about user accounts, including usernames, passwords (hashed), roles, and permissions. It will also track user activity and last login timestamps.
2	Transactions	This table will record all financial transactions, categorized by type (e.g., sales, purchases, expenses) and date. Each transaction will include details such as amount, associated accounts, and descriptions.
3	Reports	This table will store templates and generated reports for financial statements and analytics. It will include metadata such as report type, creation date, and user who generated the report.
4	Settings	This table will hold system configuration settings, such as fiscal year definitions, currency preferences, and tax rates. This allows for easy updates and customization based on organizational needs.

**Table 6.1 Key entities of Financial Database**

- **Relationships Between Entities**
  - **User -Transaction Relationship:** Each transaction will be linked to a user who recorded it, allowing for accountability and audit trails. This relationship will help track who made changes to financial data.
  - **Report-Transaction Relationship:** Reports will be generated based on transactions, allowing users to analyze specific data sets. This relationship will facilitate the generation of customized reports based on user-defined criteria.
- **Data Security Measures**
  - **Access Control:** The database will implement role-based access control to ensure that users can only access data relevant to their roles. For example, an accountant may have access to transaction data, while a manager may have access to reports.



- **Data Encryption:** Sensitive data, such as user passwords and financial information, will be encrypted to protect against unauthorized access. This includes using hashing algorithms for passwords and encryption standards for stored data.

## 6.5 Deployment Strategy

The deployment strategy for Evyavahaar will focus on leveraging cloud infrastructure to ensure scalability, reliability, and ease of maintenance. This approach will facilitate rapid deployment and continuous integration of updates.

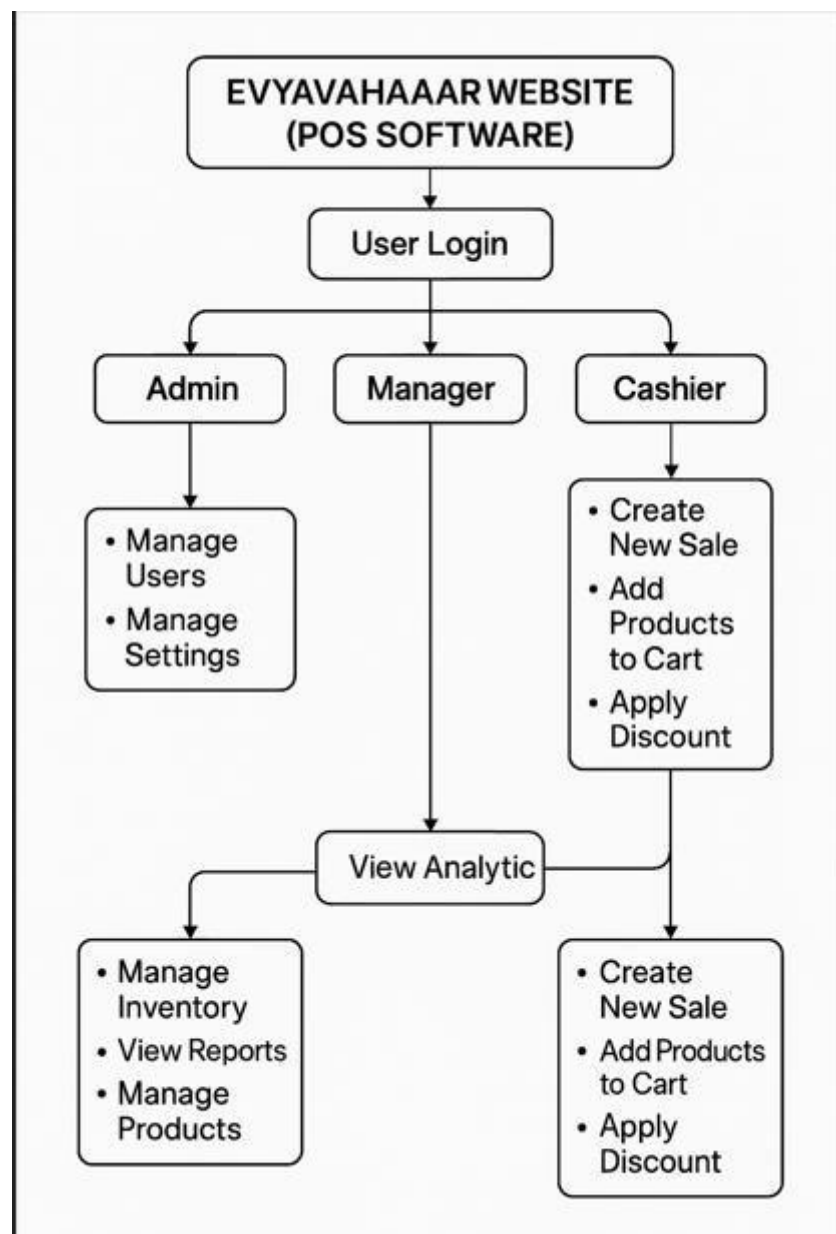
- **Cloud Infrastructure**
  - **Cloud Service Providers:** Evyavahaar will be deployed on a cloud platform such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP). These providers offer a range of services, including computing power, storage, and database management, which can be scaled according to demand.
  - **Benefits of Cloud Deployment:** Utilizing cloud infrastructure allows for automatic scaling based on user load, reducing the risk of downtime during peak usage. Additionally, cloud services often include built-in security features, backup solutions, and disaster recovery options.
- **Continuous Integration and Deployment (CI/CD)**
  - **CI/CD Practices:** The development team will implement CI/CD practices to streamline the process of integrating code changes and deploying updates. This involves using tools such as Jenkins, GitLab CI, or CircleCI to automate testing and deployment processes. The development team will implement CI/CD practices to streamline the process of integrating code changes and deploying updates. This involves using tools such as Jenkins, GitLab CI, or CircleCI to automate testing and deployment processes.
  - **Automated Testing:** Automated testing will be integrated into the CI/CD pipeline to ensure that new features and bug fixes do not introduce regressions. This includes unit tests, integration tests, and end-to-end tests to validate the functionality of the application. The development team will implement CI/CD practices to streamline the process of integrating code changes and deploying updates. This involves using tools such as Jenkins, GitLab CI, or CircleCI to automate testing and deployment processes.
  - **Deployment Automation:** Deployment scripts will be created to automate the deployment process, reducing the risk of human error and ensuring that updates can be rolled out quickly and consistently. The development team will implement CI/CD practices to streamline the process of integrating code changes and deploying updates.

This involves using tools such as Jenkins, GitLab CI, or CircleCI to automate testing and

deployment processes.

- **Monitoring and Maintenance**

- **Monitoring Tools:** After deployment, monitoring tools such as New Relic, Datadog, or Prometheus will be utilized to track application performance, user activity, and system health. This proactive monitoring will help identify and address issues before they impact users.
- **Regular Maintenance:** A maintenance schedule will be established to perform routine updates, security patches, and performance optimizations.



**Fig 6.1 Workflow Diagram**

In the figure 6.1, The Evyavahaar website functions as a modern, web-based Point of Sale (POS) software system designed to simplify and centralize the sales, inventory, and user management

Evyavahaar

processes for businesses, particularly in retail and service sectors. The workflow diagram associated with Evyavahaar provides a high-level yet comprehensive overview of how various user roles interact with the system and how different operations are logically interconnected. At the core of the system lies the **User Login** module, which acts as the entry point for all types of users—be it administrators, managers, or cashiers. This login system enforces role-based authentication, ensuring that each user is only allowed access to the features and functions relevant to their designated responsibilities. This separation of concerns not only improves operational efficiency but also significantly enhances the security posture of the application by restricting unauthorized access to critical modules.

After successfully logging in, users are directed to dashboards customized for their roles. **Admins**, the most privileged users, have comprehensive control over the entire POS ecosystem. Their dashboard provides access to user management features where they can add, remove, or edit user accounts for both managers and cashiers. Admins also control system-wide settings, such as configuring payment gateways, managing tax structures, or setting up organizational units for multi-branch retail setups. Furthermore, admins can generate and review all business reports, whether they pertain to sales performance, inventory levels, staff productivity, or customer interactions. These functionalities allow the admin to act as a central controller for the entire POS infrastructure, ensuring the system runs smoothly and aligns with business goals.

The **Manager** role, which sits just below the admin in terms of hierarchy, is centered around operations and inventory management. Managers are responsible for handling stock, tracking inventory levels, and making procurement decisions based on usage patterns and forecasts. Their dashboard allows them to add new products, update existing product details, manage categories, and associate barcodes or SKU numbers for seamless identification. They also have access to detailed sales reports and historical analytics, enabling them to make data-driven decisions on product restocking, discount offers, and customer loyalty programs. Managers serve as a crucial link between the business's strategic objectives and its day-to-day operations. They often coordinate with both admins for policy-level implementations and cashiers for executing transactions effectively. The workflow diagram clearly shows how managers interface with modules for managing inventory, products, and performance reporting.

One of the most frequently used interfaces in the system belongs to the **Cashier** or **Salesperson** role. Cashiers are primarily responsible for conducting transactions. Their simplified yet efficient dashboard facilitates fast sales processing, ideal for environments with high customer turnover like supermarkets, clothing stores, or restaurants. Through the “Create New Sale” module, cashiers can scan or search for products, add them to the virtual shopping

cart, apply applicable discounts or loyalty benefits, and proceed to billing. They can choose between multiple payment methods such as cash, card, UPI, or wallet-based transactions. In some cases, the cashier module also supports split payments or credit-based sales, depending on business policies configured by the admin. Once a sale is finalized, the system automatically generates a digital or printable invoice for the customer. Each transaction is logged and synced in real-time to the central database, which managers and admins can later review through the analytics or reporting modules.

A unique and highly valuable component present in the workflow diagram is the **View Analytics** module, which is accessible to both managers and admins. This component integrates seamlessly with all operational modules, pulling data from sales, inventory movements, staff activities, and customer behaviors to provide real-time business intelligence. The analytics dashboard is typically graphical and interactive, featuring key performance indicators (KPIs) such as daily sales, average basket size, stock depletion rates, top-selling products, and customer acquisition trends. Managers use these insights to adjust promotions, optimize pricing, or refine inventory planning. Admins, on the other hand, rely on analytics for high-level strategy, such as deciding store expansions, evaluating branch performance, or assessing employee productivity. By providing data-driven insights, the analytics engine transforms raw business operations into actionable knowledge, positioning Evyavahaar as more than just a sales processing tool.

The workflow diagram also subtly emphasizes the cyclical and interdependent nature of POS operations. For example, sales processed by the cashier automatically impact inventory levels, which the manager must replenish. The new stock added by the manager may be based on trends noticed through analytics, which are themselves generated from data entered by the cashier. Admins may then analyze this entire flow and modify system rules—such as adjusting stock reorder thresholds or changing user permissions. Thus, while the modules are distinctly assigned to specific roles, they operate in a closed feedback loop where each role contributes to and benefits from the activities of others. This reflects a well-thought-out architectural design where modular independence coexists with systemic integration.

From a technical standpoint, the workflow assumes a backend supported by a centralized relational database, typically hosted on a secure cloud platform. Each user interaction—whether it is logging in, completing a sale, or updating product inventory—is a database transaction that must be ACID-compliant (Atomic, Consistent, Isolated, and Durable). The front-end interfaces are likely built using responsive web technologies like HTML5, JavaScript, and CSS3 to ensure usability across devices, including desktops, tablets, and mobile POS terminals. For security, user roles are enforced using token-based

authentication systems, often combined with SSL encryption for data in transit and hashing mechanisms for stored passwords.

The diagram also reflects a user-centric philosophy where the complexity of the system is hidden behind intuitive interfaces. For instance, while the cashier's work involves multiple steps—scanning items, checking discounts, selecting payment methods, printing invoices—the system condenses this into a smooth workflow. Managers benefit from drag-and-drop product management or real-time stock alerts, while admins might receive scheduled email reports and audit logs, ensuring traceability without excessive manual oversight. This emphasis on usability helps businesses reduce training time, minimize human error, and maintain operational consistency even during staff turnover.

In practical use cases, Evyavahaar can be deployed in a variety of business environments. For small businesses, the admin and manager roles might be held by a single person, while larger enterprises might involve multiple users per role, spread across different physical locations. The flexibility of the system design accommodates both centralized and decentralized operations. For example, a supermarket chain with ten locations might centralize admin functions at headquarters while delegating store-level inventory and sales to on-site managers and cashiers. The workflow diagram supports this model by ensuring that data flows bidirectionally and is always accessible to authorized personnel.

Furthermore, the POS system may integrate with third-party tools such as accounting software (e.g., Tally, QuickBooks), e-commerce platforms (e.g., Shopify, WooCommerce), and digital payment services (e.g., Razorpay, Stripe, Paytm). These integrations enhance the system's utility by automating tasks such as tax filing, syncing online and offline sales, and reconciling bank statements. From the perspective of the workflow, these integrations typically operate in the background, triggered by user actions like sales completion or stock purchase entries. Admins usually configure these integrations, while managers and cashiers benefit from the automated outcomes.

Looking forward, the diagram also provides a foundation for future enhancements. Modules for customer relationship management (CRM), supplier management, employee scheduling, or even AI-based predictive analytics can be added without disrupting the existing workflow. Each role would naturally extend into these new areas—for example, cashiers might collect customer feedback, managers might track supplier lead times, and admins might review AI-generated forecasts. Because the workflow is modular and role-driven, it scales easily with business growth.

In conclusion, the Evyavahaar POS software workflow diagram effectively encapsulates the key processes, user roles, and system interactions in a clear and logical

Evyavahaar format. Each user role—Admin, Manager, and Cashier—is assigned specific responsibilities that contribute to a cohesive and efficient business operation. The central login system ensures secure access, while the modular design allows each role to operate independently while still feeding into a larger feedback loop supported by real-time analytics. Whether it's processing a single sale or overseeing an entire retail operation, the workflow design ensures that users have the tools they need, when they need them, all while maintaining transparency, traceability, and performance optimization. The workflow not only reflects the current capabilities of the system but also lays the groundwork for future innovation, making Evyavahaar a robust and scalable POS solution for modern businesses.



**Fig 6.2 Overview Diagram**

In the above Figure 6.2, The Evyavahaar POS system’s second workflow diagram offers an intuitive, structured view of the application’s web interface. At the top level, the system is anchored by the main label “evyavahaar,” signifying the centralized nature of the platform as the core hub from which all operational components originate. This clear visual hierarchy reinforces that Evyavahaar operates as a unified platform where every function—whether related to sales, product management, reporting, or dashboard analytics—is seamlessly integrated and accessed through a centralized portal. Beneath this primary node, the diagram branches into four fundamental modules: **Dashboard**, **Sales**, **Products**, and **Reports**. These represent the principal categories of functionality available within the

application, each designed to fulfill essential business operations within a retail or multi-store environment.

The **Dashboard** section occupies the leftmost position among the four branches, highlighting its role as the first point of interaction for most users. Upon login, users are typically directed to the Dashboard where a high-level **Overview** of operations is presented. This may include metrics such as daily sales, pending stock updates, real-time transactions, or quick links to frequently used features. The dashboard acts as the control tower of the POS system, offering insights at a glance and enabling users to navigate efficiently to detailed sections. Its purpose is to reduce cognitive load by centralizing key indicators and reminders, thereby ensuring that even complex operations remain manageable. This overview is especially useful for managerial roles and administrators who rely on summarized data to make operational decisions quickly. The dashboard may also feature alerts, such as low stock warnings or sales anomalies, which allow managers to act proactively rather than reactively. The workflow diagram's simplicity in representing the dashboard-to-overview connection reflects this intentional design choice—highlighting usability and direct access to actionable insights.

To the right of the Dashboard lies the **Sales** module, which is arguably the most actively used component of any POS system. Sales processing is the lifeblood of retail businesses, and in Evyavahaar, this module is subdivided into three essential components: **New Sale**, **Sales History**, and **Customers**. The New Sale feature facilitates the primary function of the POS system—creating and processing transactions. Users, typically cashiers or sales clerks, interact with this feature to input products via barcode scanners or manual search, apply discounts, accept payments, and generate receipts. It is designed to be fast, user-friendly, and error-resistant to accommodate high-volume environments. The UI likely supports auto-complete suggestions for product names, toggles for applying promotional discounts, and multi-channel payment integrations (cash, card, UPI, etc.). Following a transaction, the data is automatically logged into the **Sales History**, which is the second sub-component under Sales. Sales History serves as an immutable ledger of past transactions and is critical for returns, audits, and reconciliations. Users can sort or search records by date, transaction ID, cashier ID, or customer details. This component enhances transparency and accountability across the organization. The third sub-component under Sales is **Customers**, which links sales operations with customer relationship management (CRM). Here, user profiles are created or updated each time a transaction occurs, enabling businesses to build a

database of customers. This information may include purchase history, contact details, loyalty points, and feedback. By managing customers through the sales module, Evyavahaar enables targeted marketing efforts, personalized service, and repeat business generation.

The **Products** module, located to the right of Sales, is structured into four layers: **Product List**, **Categories**, **Stock Management**, and an additional, somewhat obscured component likely representing suppliers or inventory audit. The Product List is where users can view and manage the inventory of items available for sale. Each product entry typically includes fields such as name, SKU, barcode, price, tax rate, and quantity. The interface may allow users to add new products, duplicate existing templates, or deactivate discontinued items. The organization of products into **Categories** further aids usability, allowing managers to group items into logical segments such as beverages, electronics, or apparel. This taxonomy improves navigation and supports report segmentation. The next layer, **Stock Management**, deals with inventory quantities, reordering thresholds, and warehouse-level allocations. When stock dips below a certain threshold, alerts are generated on the dashboard, prompting managers to replenish inventory. Stock movements—whether due to sales, purchases, returns, or transfers—are tracked in real-time, ensuring accuracy. The final (lower) node in this branch likely refers to either suppliers, audits, or purchase orders. Including such a node indicates the POS system's capability to handle back-end inventory workflows such as procurement and vendor management. These features are essential for ensuring a steady supply chain, particularly in businesses with complex supplier relationships or multiple locations.

On the far right of the diagram is the **Reports** module, which leads to the **View Reports** section. This component aggregates data from sales, inventory, and customer modules to produce meaningful insights in the form of graphical dashboards, charts, and tabular summaries. Users—mainly managers and admins—can generate daily, weekly, or custom-date-range reports to monitor key metrics such as gross revenue, net profit, sales by product category, and cashier performance. Reports can also be exported in formats like PDF or Excel for sharing with stakeholders or for accounting purposes. The reporting engine may also support filters and drill-down capabilities, allowing users to investigate trends or identify anomalies. This feedback loop is critical for decision-making and long-term planning. For example, a sales dip in a particular product category might trigger a promotion or supplier switch. Likewise, identifying the top-performing salesperson could lead to incentives that drive morale and productivity. By consolidating this component in a separate module,



Evyavahaar ensures that analytical tasks do not interfere with operational ones, maintaining system responsiveness and clarity of function.

What makes this diagram particularly effective is its simplicity and logical grouping. It avoids clutter by focusing only on essential modules, yet it implicitly suggests scalability. Each top-level category (Dashboard, Sales, Products, Reports) is a self-contained unit, allowing businesses to assign access based on user roles. For example, cashiers might only see Sales and limited Dashboard data, while managers access Sales, Products, and Reports, and admins have full visibility. This modularity also facilitates training, as new users can be onboarded with a focus on the specific areas they need. From a design perspective, this role-based segregation reduces the risk of errors and enhances accountability. Furthermore, by using a vertical flow within each module, the diagram indicates a logical progression of tasks—users start from a general function and move toward specific operations. This structure aligns with how people naturally approach work, enhancing intuitiveness and reducing learning curves.

Technically, the diagram reflects a multi-tier architecture where the frontend interacts with a backend API that interfaces with a secure database. Each action—whether updating stock or recording a sale—is translated into database transactions with rollback capabilities, ensuring system integrity. The system likely uses asynchronous calls for heavy operations like report generation or stock updates to maintain UI responsiveness. The navigation implied by the diagram suggests the presence of a sidebar or tab-based menu within the actual software, where each of these modules is accessible via icon or label. Such UI paradigms are common in modern web applications and enhance user experience across desktop and mobile platforms.

From a business process standpoint, the workflow promotes operational efficiency by ensuring each critical function—be it a sale, an inventory update, or a report—is just a few clicks away. For instance, a manager noticing low stock from the dashboard overview can jump directly into Stock Management, place a new order, and monitor fulfillment all within the same interface. Similarly, the sales team can process customers rapidly using the New Sale screen, which automatically logs data for reporting and CRM purposes. This interconnectivity ensures that business activities are not siloed but instead form part of a cohesive system that operates in real time.

Moreover, the design is equally beneficial for performance monitoring. By integrating customers and sales history into the same workflow, it becomes possible to track not just what was sold, but to whom and when. This opens the door for personalized marketing campaigns or customer retention strategies. Likewise, product analytics derived from stock movement and sales performance can guide pricing decisions or product placement. Reports generated from these modules offer not just summaries, but actionable insights that drive business growth. For example, knowing which product has the highest return rate or which day of the week yields the most sales enables businesses to optimize operations accordingly.

Finally, the modular, structured nature of the diagram suggests that the system is extensible. Future enhancements such as loyalty programs, gift cards, appointment bookings (for service-based businesses), or even AI-driven demand forecasting could be integrated into this structure without disrupting existing workflows. This scalability makes Evyavahaar a future-proof solution capable of growing alongside the businesses it serves. In essence, the diagram not only captures the present functionality of the POS platform but also hints at its potential to evolve into a more sophisticated ERP-lite system catering to small and mid-sized enterprises.

## CHAPTER-7

### TESTING

#### 7.1 Testing Strategy

A comprehensive testing strategy for Evyavahaar encompasses various forms of testing to ensure quality and reliability:

- **Unit Testing:**
  - Focuses on individual components.
  - Verifies functionality and performance of modules in isolation.
  - Aims to catch bugs early in the development cycle.
- **Integration Testing:**
  - Tests the interactions between different modules.
  - Ensures data flows correctly between integrated components.
  - Helps detect interface defects and data consistency issues.
- **User Acceptance Testing (UAT):**
  - Engages end users in the testing process.
  - Validates that the system meets user requirements and expectations.
  - Typically conducted in a real-world environment to simulate actual use.

#### 7.2 Performance Testing

Performance testing is essential for assessing how well the system functions under various conditions:

- **Response Time Evaluation:**
  - Measures the speed of the system when processing requests.
  - Aims to keep response times within acceptable limits.
- **Scalability Assessment:**
  - Tests system performance as the load increases.
  - Validates that the system can accommodate growth in user numbers.
- **Load Testing:**
  - Simulates peak usage scenarios.
  - Identifies potential bottlenecks that could impact performance.

#### 7.3 Security Testing

- **Vulnerability Assessment**

- Scans the application for potential security weaknesses.
- Identifies areas that are susceptible to attacks.
- Ensures implementation of encryption to secure sensitive information.
- Validates access control mechanisms to protect against unauthorized access.
- **Data Protection Measures**
  - Ensures implementation of encryption to secure sensitive information.
  - Validates access control mechanisms to protect against unauthorized access.
  - Scans the application for potential security weaknesses.
  - Identifies areas that are susceptible to attacks.
- **Penetration Testing**
  - Conducts simulated attacks on the system to find security flaws.
  - Tests the resilience of the application against real-world cyber threats.
  - Ensures implementation of encryption to secure sensitive information.
  - Validates access control mechanisms to protect against unauthorized access.

#### **7.4 Usability Testing**

- Evaluates the user interface and overall user experience.
- Involves real users to assess how intuitive and efficient the system is.
- Aims to identify areas for enhancements to improve user satisfaction.
- Evaluates the user interface and overall user experience.
- Involves real users to assess how intuitive and efficient the system is.
- Aims to identify areas for enhancements to improve user satisfaction.

#### **7.5 Regression Testing**

- Ensures that new code changes do not negatively impact existing functionality.
- Conducted after updates or bug fixes to verify system integrity.
- Evaluates the user interface and overall user experience.
- Involves real users to assess how intuitive and efficient the system is.
- Aims to identify areas for enhancements to improve user satisfaction.

#### **7.6 Compliance Testing**

- Validates that the system adheres to relevant laws, regulations, and industry standards.
- Important for ensuring data privacy and financial reporting compliance.
- Evaluates the user interface and overall user experience.

#### **7.7 Automated Testing**

- Incorporates automated testing tools to enhance efficiency and coverage.
- Can be applied to unit tests, integration tests, and regression tests for consistent execution.

- Evaluates the user interface and overall user experience.
- Involves real users to assess how intuitive and efficient the system is.
- Aims to identify areas for enhancements to improve user satisfaction.

### **7.8 Continuous Testing**

- Integrates testing into the development pipeline.
- Enables ongoing feedback throughout the software development lifecycle.
- Evaluates the user interface and overall user experience.
- Involves real users to assess how intuitive and efficient the system is.
- Aims to identify areas for enhancements to improve user satisfaction.

Overall, a robust testing strategy not only helps in delivering high-quality software but also enhances user confidence and satisfaction with the Evyavahaar system.

## CHAPTER-8

### CONCLUSION

The Evyavahaar platform represents a significant advancement in financial management for organizations, addressing the evolving needs of businesses in an increasingly complex financial landscape. By integrating modern technologies and design principles, Evyavahaar offers a comprehensive solution that not only streamlines financial operations but also enhances the overall user experience.

#### 8.1 Addressing User Challenges

One of the primary motivations behind the development of Evyavahaar was to tackle the challenges faced by users of existing financial management systems. Traditional methods often involve cumbersome manual processes, fragmented systems, and a lack of real-time insights, which can hinder effective decision-making. Evyavahaar addresses these issues by providing:

- **Automation of Routine Tasks:** The platform automates key financial processes, such as transaction recording and report generation, significantly reducing the time and effort required for manual data entry. This automation minimizes the risk of human error and allows financial professionals to focus on strategic activities rather than administrative tasks.
- **Real-Time Data Access:** Evyavahaar enables users to access real-time financial data, empowering them to make informed decisions based on the most current information. This capability is crucial for organizations that need to respond quickly to changing market conditions and financial circumstances.
- **Integrated Financial Management:** By unifying various financial functions into a single platform, Evyavahaar eliminates data silos and ensures consistency across financial operations. This integration facilitates a holistic view of an organization's financial health, enabling better planning and forecasting.

#### 8.2 Enhancing Compliance and Reporting

In today's regulatory environment, compliance is a critical concern for organizations. Evyavahaar is designed with compliance in mind, incorporating features that help organizations adhere to relevant accounting standards and regulations. Key aspects include:

- **Audit Trails:** The platform maintains comprehensive audit trails for all transactions, providing transparency and accountability. This feature is essential for organizations undergoing audits and ensures that financial practices are in line with regulatory requirements.

- **Customizable Reporting:** Evyavahaar offers advanced reporting tools that allow users to generate customizable financial statements and analytics. This flexibility ensures that organizations can produce reports that meet both internal and external reporting requirements, enhancing their ability to communicate financial performance effectively.

### 8.3 Empowering Organizations

The successful implementation of the Evyavahaar platform empowers organizations to make informed financial decisions. By providing tools that enhance visibility into financial performance, the platform enables users to:

- **Identify Trends and Insights:** With access to real-time data and advanced analytics, organizations can identify trends and insights that inform strategic decision-making. This capability is vital for optimizing resource allocation, managing cash flow, and planning for future growth. With access to real-time data and advanced analytics, organizations can identify trends and insights that inform strategic decision-making. This capability is vital for optimizing resource allocation, managing cash flow, and planning for future growth.
- **Improve Financial Planning:** Evyavahaar's integrated approach to financial management supports better financial planning and forecasting. Organizations can create budgets, track performance against targets, and adjust strategies based on accurate financial data. Evyavahaar's integrated approach to financial management supports better financial planning and forecasting. Organizations can create budgets, track performance against targets, and adjust strategies based on accurate financial data.
- **Drive Growth and Efficiency:** By streamlining financial operations and enhancing decision-making capabilities, Evyavahaar positions organizations for growth. The platform's user-friendly design and automation features contribute to increased efficiency, allowing organizations to allocate resources more effectively and respond to opportunities in a timely manner. By streamlining financial operations and enhancing decision-making capabilities, Evyavahaar positions organizations for growth. The platform's user-friendly design and automation features contribute to increased efficiency, allowing organizations to allocate resources more effectively and respond to opportunities in a timely manner.

### 8.4 Future Implications

As the financial landscape continues to evolve, Evyavahaar is well-positioned to adapt to emerging trends and technologies. Future enhancements may include:

- **Integration with Emerging Technologies:** The platform could leverage artificial intelligence and machine learning to provide predictive analytics, automate more complex financial processes, and enhance decision-making capabilities. The platform could leverage artificial intelligence and machine learning to provide predictive analytics,

automate more complex financial processes, and enhance decision-making capabilities.

- **Expansion of Features:** Evyavahaar may expand its feature set to include additional functionalities, such as advanced budgeting tools, scenario analysis, and integration with other enterprise systems, further enhancing its value proposition. Evyavahaar may expand its feature set to include additional functionalities, such as advanced budgeting tools, scenario analysis, and integration with other enterprise systems, further enhancing its value proposition. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.
- **User -Centric Improvements:** Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users. Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of Continuous feedback from users will drive ongoing improvements to the platform's usability and functionality, ensuring that it remains aligned with the needs of its users.

## 8.5 Final Thoughts

In conclusion, the Evyavahaar platform represents a transformative solution for financial management, addressing the challenges faced by organizations and empowering them to achieve greater efficiency and effectiveness in their financial operations. By embracing modern technologies and prioritizing user experience, Evyavahaar not only enhances financial management practices but also positions organizations for sustainable growth in an increasingly competitive environment. As the platform evolves, it will continue to play a pivotal role in shaping the future of financial management, driving innovation, and delivering value to its users. the Evyavahaar platform represents a transformative solution for financial management, addressing the challenges faced by organizations and empowering them to achieve greater efficiency and effectiveness in their financial operations. By embracing modern technologies and prioritizing user experience, Evyavahaar not only enhances financial management practices but also positions organizations for sustainable growth in an increasingly competitive environment.



## APPENDIX

### OUTCOMES

- **Models Initialization and Configuration**

**Purpose:** Establish a robust and flexible environment that supports user interaction and efficient data management, catering to diverse business needs.

**Features**

- **Flexible Configuration**

- Customizable settings tailored to different business operations and individual user preferences.
- Adaptability to support single-store or multi-store models with unique workflows.

- **User-Friendly Interface**

- A clean and intuitive design ensures easy onboarding and navigation.
- Helpful prompts, tooltips, and onboarding guides assist users at every step.

- **Regional Language Integration**

- Supports a variety of Indian regional languages including Kannada, Hindi, Tamil, Bengali, and more.
- Enhances accessibility and usability for users across different geographies.
- Real-time toggle for language switching, ensuring inclusivity and ease of use.

**Overview:** Acts as the core financial module, managing and centralizing all transactional and financial records with accuracy and transparency.

**Functions**

- **Automated Posting**

- Streamlined integration with sub-ledgers (sales, purchases, payroll).
- Reduces manual effort by automatically updating financial data.

- **Real-Time Financial Updates**

- Immediate reflection of transactional changes in the ledger.
- Supports up-to-date financial tracking, budgeting, and compliance.

- **Comprehensive Reporting**

- On-demand access to balance sheets, journals, and ledgers.
- Report customization by period, department, or account type.

**Outputs:** Provides critical financial documentation to analyze the health and performance of the business.

- **Generation of Financial Documents:**

- **Balance Sheets:** Displays a snapshot of the organization's financial position, including assets, liabilities, and shareholder equity.
- **Profit & Loss Statements:** Offers insights into operational profitability and expenditure patterns.

- **Custom Reports:**

- Filters for custom timeframes, departments, product lines, or branches.
- Period-over-period comparisons enable historical performance evaluation.

- **Financial Health Analysis:**

- Visualization of financial trends using graphs and KPIs.
- Useful for forecasting, compliance, and stakeholder reporting.

- **Customer Registration**

**Key Features**

- **User Details Collection**

- **Salutation:** Customizable honorifics for personalization.
- **First & Last Name:** Full name capture for identification.
- **Date of Birth:** For age verification and targeting services.
- **Gender:** Inclusive options to accommodate all users.
- **Contact Information:** Mobile numbers and email for communication.
- **Education Qualification & Occupation:** Useful for profiling and segmentation.
- **Marital Status:** Optional demographic information for targeted outreach.

- **Ease of Use**

- Well-labeled and clearly structured fields with visual guidance.
- Mandatory fields indicated with asterisks (\*).
- Smart defaults and dropdowns to reduce manual entry errors.

- **Customer Registration User Interface**

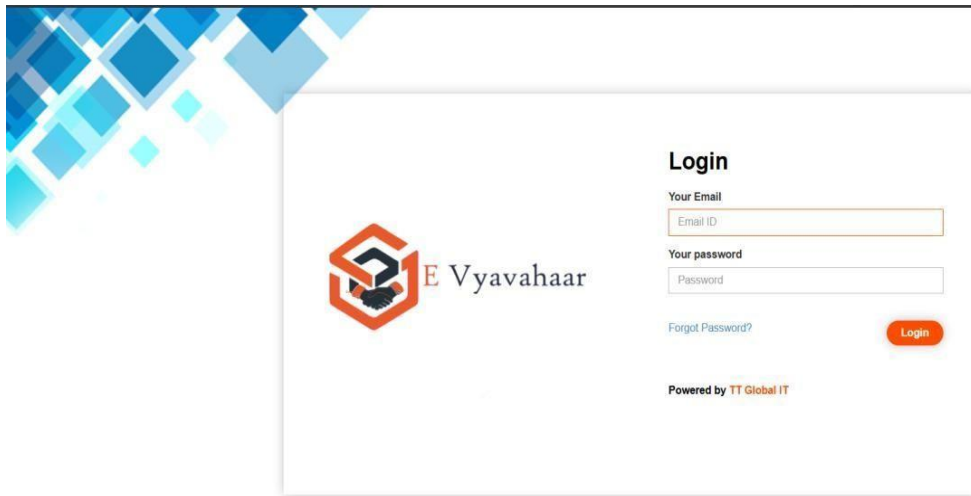
**Interface Features:**

- **Customer ID and Registration Date:**

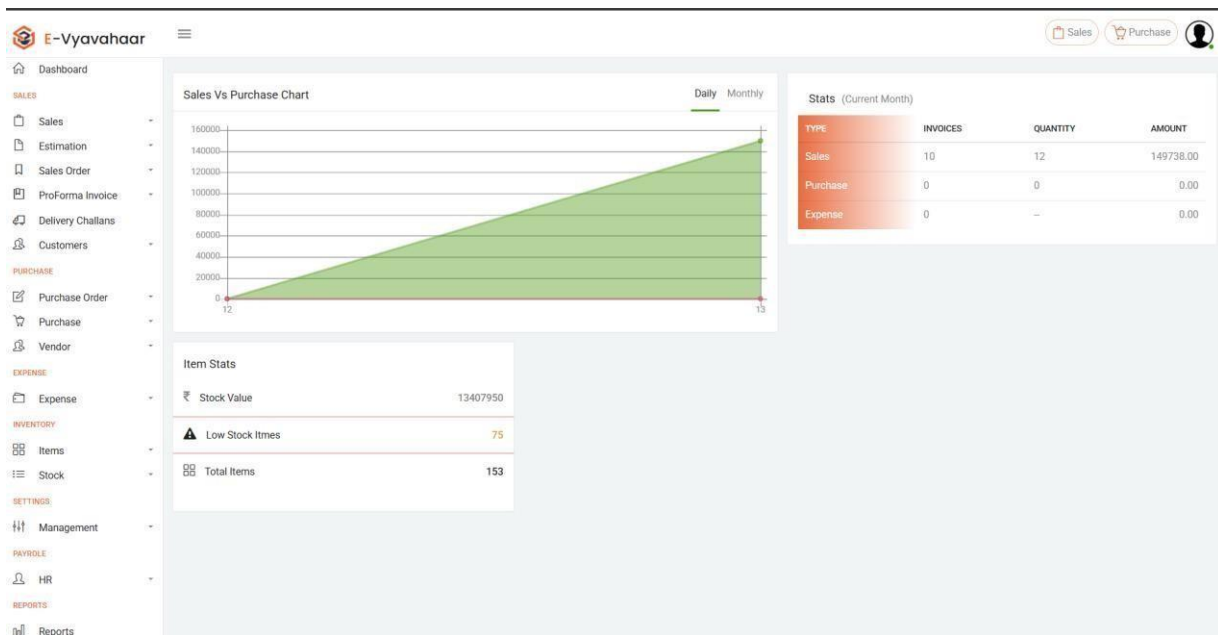
- Unique, system-generated customer ID for traceability.
- Timestamped registration date used for records and audits.

- **Detailed Input Sections:**
  - Segmented UI layout: personal details, contact info, and financial background.
  - Clear input hints and error handling for form fields.
  - Dynamic fields that appear based on previous selections.
- **Details in Regional Language:**
  - Multilingual support for all form labels and tooltips.
  - Option to translate into regional scripts in real-time.
  - Enhanced UX for users with limited English proficiency.
- **Mobile-Friendly and Responsive Design:**
  - Adaptive interface for smartphones, tablets, and desktops.
  - Touch-friendly buttons and optimized keyboard support.
  - Readable text, collapsible sections, and smooth scrolling.
- **Real-Time Validation and Feedback:**
  - Field validation occurs immediately upon input.
  - Instant display of errors, suggestions, or success indicators.
- **Secure Login and Role-Based Access:**
  - Role-specific authentication: admin, branch staff, and viewer.
  - Access control for privacy and security of customer data.
- **Search and Filter Options:**
  - Global search to locate customers quickly using ID, name, or phone number.
  - Advanced filters by location, date, gender, and occupation.
- **Data Auto-Save and Draft Mode:**
  - Automatic saving of entered data in intervals to prevent loss.
  - Allows users to save incomplete forms and resume later.
- **Upload and Attach Documents:**
  - Document uploader supports photos, IDs, utility bills, etc.
  - Previews and file type validation included for usability.
- **Accessibility Features:**
  - UI support for screen readers and keyboard navigation.
  - Color contrast mode and adjustable font sizes.
- **Printable and Downloadable Reports:**
  - Customer summaries exportable as PDF or print-ready reports.
  - Useful for offline documentation or compliance filing.


## SCREENSHOTS



**Fig A. Sign Up and Log in Page**



**Fig B. Admin Dashboard**



## Forgot Password

Your Email ID

<- Login Submit

Fig C. Forgot Password Page

Sales

Purchase

Sales Invoice #\*

Customer Name\*

Phone No.

Sales Date\*

SLI/25-26/0011

tejas

123456789

19-05-2025

Customer's GSTIN

Billing Address

Shipping Address

Buyer's Order/PO No.

Order/PO Date

ewew

e

dwt

19-05-2025

Payment Terms

E-Way Bill No.

Mode of transport

Vehicle No.

ew

ewwe

er

4567

Item Details

#	Item Name	Qty	Price/Unit	Discount		Tax		Line Total	Del.
				%	Amt.	%	Amt.		
1	Channa Dal in KG ew	2	234567	Infinity	1	GST@3.00 excluded	14073.99	483206.99	

+ New item row (Ctrl + M)

+ Add Item

Terms Of Sales

Total Qty:

2.00

Sub-Total:

469133.00

Discount:

1.00

Tax Total:

14073.99

Adjustment:

0.00

Grand Total:

483207.00

Received Amount:

0.00

Balance Amount:

483207.00

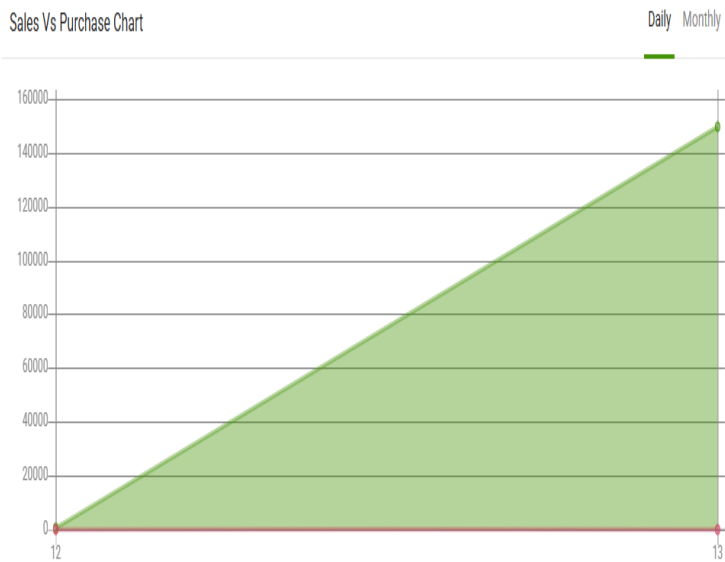
Mode of payment:

Select Mode

Submit

Fig D. New sales

Sales Vs Purchase Chart



Stats (Current Month)

TYPE	INVOICES	QUANTITY	AMOUNT
Sales	10	12	149738.00
Purchase	0	0	0.00
Expense	0	-	0.00

Fig E. Graphical Representation

Navigation icons: Home, Back, Forward, Search, etc.

Vendor Name\*  Purchase Invoice #\*  PO No.  Purchase Date\*

Item Details

Item Name	Qty	Price/Unit	Discount		Tax		Line Total	Del.
			%	Amt.	%	Amt.		
1 Select Item Custom Description	<input type="text" value="Qty"/>	<input type="text" value="Price"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="GST@0.00"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text"/>

+ New Item row(Ctrl + M) + New Add Item

Total Qty:   
 Sub-Total:   
 Discount:   
 Tax Total:   
 Round off:   
 Grand Total:

Submit

Fig F. New Purchase

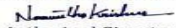
DELIVERY CHALLAN						Original For Recipient
<b>TRANSCRIPT TECHNOLOGY GLOBAL INFOTECH PVT LTD</b> #105 3rd cross Dasarahalli Main Road, Hebbal Farm Post Bengaluru Karnataka 560024 Phone : Email : info@ttglobalit.com GSTIN : 29BGTPB2586CIZ7						
<b>SAMYUKTHA</b> Asdfghj Phone No. : 8765432345 GSTIN : 29ASDFG1234H1Z9				<b>DC No. : /24-25/0005</b> <b>DC Date: 23-11-2024</b> <b>Buyer's Order No:</b> <b>Order Date: 11-11-2024</b> <b>E-Way Bill No.:</b>		
SNo	Description of Goods	HSN/SAC	Qty	Rate	Amount	
1	Coffee Makers	8517.12	10	5500.00	55000.00	
			Total Qty: 10			
<b>Terms &amp; Conditions:</b>				Sub Total : 55000.00 Adjustment : 0.00 <b>Grand Total : 55000.00</b>		
<b>Amount In Words</b> Fifty Five Thousand Only/-				<b>For TRANSCRIPT TECHNOLOGY GLOBAL INFOTECH PVT LTD</b>  Authorised Signatory		

Fig G. Delivery Challan

Create Quotation / Estimate

Quote #*	Customer Name*	Phone No.	Quote Date*	Quote Validity*
EST/25-26/0001			19-05-2025	19-05-2025
Customer GSTIN	Customer Email	Customer Address		

Item Details

Item Name	Qty	Price/Unit	Discount		Tax		Line Total	Del.
			%	Amt.	%	Amt.		
1 Select Item	Qty.	Price	0	0	GST@0.00	0	0.00	
Custom Description								

+ New item row(Ctrl + M)

Terms & Conditions

gfs

Sub-Total: 0.00

Discount: 0.00

Tax Total: 0.00

Adjustment: 0.00

**Grand Total: 0.00**

Submit

Fig H. New Estimate

**Customer Details**

Darshan B Payable Balance -7762100.00

Customer Details   Sales Invoices   Credit Notes   Transactions

**Basic Information**

Customer Name\*  Phone No.  Email ID

Customer Address\*  Opening Balance\*  OB Date

**Business Details**

PAN  GSTN

**Currency Details**

Invoicing Currency

[Reset](#) [Submit](#)

Fig I. New Customer

**Create New Proforma Invoice**

Proforma No.\*  Customer Name\*  Phone No.  Proforma Date\*  Proforma Valid Till

Customer GSTIN  Customer Email  Customer Address  Buyer's Order/PO No.

Order/PO Date

**Item Details**

Item Name	Qty	Price/Unit	Discount		Tax		Line Total	Del.
			%	Amt.	%	Amt.		
1 <input type="text" value="Select Item"/> <input type="text" value="Custom Description"/>	<input type="text" value="Qty."/>	<input type="text" value="Price"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="GST@0.00"/>	<input type="text" value="0"/>	<input type="text" value="0.00"/>	<input type="text"/>

[+ New Item row\(Ctrl + M\)](#)

Terms & Conditions

Sub-Total:   
Discount:   
Tax Total:   
Adjustment:   
**Grand Total:**

[Submit](#)

Fig J. New Proforma Invoice



## Add Vendor

## Vendor Information

Vendor Code	Vendor Name*	Phone No.
<input type="text"/>	<input type="text"/>	<input type="text"/>
Email ID	Website	
<input type="text"/>	<input type="text"/>	
Vendor Address*	Opening Balance*	OB Date*
<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>

## Contact Details

Contact Person	Contact No.	Contact Email
<input type="text"/>	<input type="text"/>	<input type="text"/>
PAN	GSTN	
<input type="text"/>	<input type="text"/>	

Fig K. Add Vendor

## Create Expense

Reference #	Expense Type*	Expense Date*
<input type="text" value="19"/>	<input type="text" value="Select Type"/>	<input type="text" value="19-05-2025"/>
<input type="button" value="Add Expense Items"/>		
Description*	Amount*	
<input type="text"/>	<input type="text"/>	
	Mode Of Paymnet*	
	<input type="text" value="Select Mode"/>	
		<input type="button" value="Submit"/>

Fig L. Create Expense

Stock List

All Categories All Brands Download

Show 10 entries Search:

#	ITEM CODE	ITEM DESC.	CATEGORY	TYPE	BRAND	UNIT	STOCK QTY.	STOCK VALUE	PURCHASE PRICE	SELLING PRICE
1	RC_01	RICE	GROCERY	product	Basumathi	KG	-693.00	-27720.00	40.00	45.00
2	ML_01	MILK IN LITERS	MILK	product	Nandini	LTR	102.00	612000.00	6000.00	6600.00
3	DAL	DAL IN KG	GROCERY	product	Shankar	KG	0.00	0.00	80.00	84.00
4	ICODE1	ITEM DESC1	SHOE	product	brand1	NOS	0.00	0.00	299.00	299.00
5	ICODE2	ITEM DESC2	SHOE	product	brand2	kg	0.00	0.00	599.00	599.00
6	ICODE3	ITEM3	BALL	product	brand3	NOS	50.00	24950.00	499.00	499.00
7	ICODE4	ITEM DESC4	BAT	product	brand4	nl	0.00	0.00	299.00	299.00
8	ICODE5	ITEM DESC5	ASD	product	brand5	kg		0.00	4000.00	4000.00
9	ICODE6	ITEM DESC6	ASD	product	brand6	mm		0.00	699.00	699.00
10	ICODE7	ITEM DESC7	ASD	product	brand7	ls		0.00	7565.00	7565.00

Showing 1 to 10 of 140 entries

Previous 1 2 3 4 5 .. 14 Next

Fig M. Stock List

## REFERENCES

- [1] . Chakraborty, S,” *An Overview of Digital POS Systems in India*”, 2021.
- [2] . Evyavahaar Development Team, “ *Evyavahaar POS Software Workflow and UI Design*”, 2025 (Unpublished Internal Document).
- [3] . Evyavahaar Product Team, “ *Customer Registration Module: Technical Specification*”, 2025 (Unpublished Internal Document).
- [4] . Government of India,” *Digital India Programme*”, 2015.
- [5] . Government of India, *GeM – “ Government e-Marketplace Overview*”, 2017.
- [6] . Government of India,” *India Stack: APIs for a Digital India*”, 2016.
- [7] . Kumar, R. & Sharma, P., “*Multi-language User Interfaces for Inclusive Software in India*”, 2018.
- [8] . Ministry of Corporate Affairs, “ *General Instructions for Preparation of Financial Statements (Schedule III)*”, 2019.
- [9] . NASSCOM,” *POS in MSME Sector: Adoption Trends and Challenges*”, 2020.
- [10] . Odoo S.A., “*Odoo Point of Sale Documentation*”, 2022.
- [11] . Reserve Bank of India, “*Framework for Financial Reporting and POS Transaction Standards*”, 2020.
- [12] . UniCenta,” *UniCenta POS Open-Source Project Guide*”, 2021.