

A Project On

**Building an ERP System for Student
Entrepreneur at Meinders School of Business**

**MASTERS
IN
COMPUTER SCIENCE AND ENGINEERING**

Submitted By

**Satya
Sai Vineesh
Sreeja**

**Under the Esteemed Guidance of
Professor, Bobby Reed**

INTRODUCTION

The project aims to develop a customized ERP (Enterprise Resource Planning) platform tailored specifically for student entrepreneurs at Meinders School of Business. This platform will streamline and integrate core business operations, empowering students to manage their startups effectively. To provide an all-in-one solution that enhances business management experience for student entrepreneurs. Key features include a built-in financial assistant that offers guidance on business operations, financial management, and even provides stock market tips to help students make informed decisions.

The platform is designed to simplify complex business processes, allowing students to focus on growth and innovation.

PROJECT OBJECTIVES

- **Develop a Customized ERP Platform:** Create a tailored ERP solution for student entrepreneurs at Meinders School of Business, focused on the unique needs of startup management.
- **Integrate Business Operations:** Provide a seamless, centralized system that integrates core business functions such as finance, inventory, customer management, and human resources.
- **Enhance Decision-Making:** Offer a built-in financial assistant feature that guides users in business operations, helping with budgeting, expense tracking, and cash flow management.
- **Provide Stock Market Insights:** Include a feature that delivers stock market tips and financial insights, empowering students to make informed investment decisions.
- **Support Entrepreneurial Growth:** Equip students with the necessary tools to efficiently manage their startups, reduce manual processes, and focus on business expansion and innovation.

SYSTEM REQUIREMENTS

► Customizable ERP System:

- Tailored dashboards and tools for each student entrepreneur.
- Integrates business processes: accounting, inventory management, and project tracking.

► Financial Assistant:

- Personalized financial management: budgeting, tracking, and reporting.

► Stock Tips & Investment Insights:

- Algorithm-based stock recommendations.
- Real-time stock market data and forecasts.

► Financial Management:

- Automated expense tracking, invoicing, and revenue management.
- Real-time profit/loss analysis.

► Stock Tips Feature:

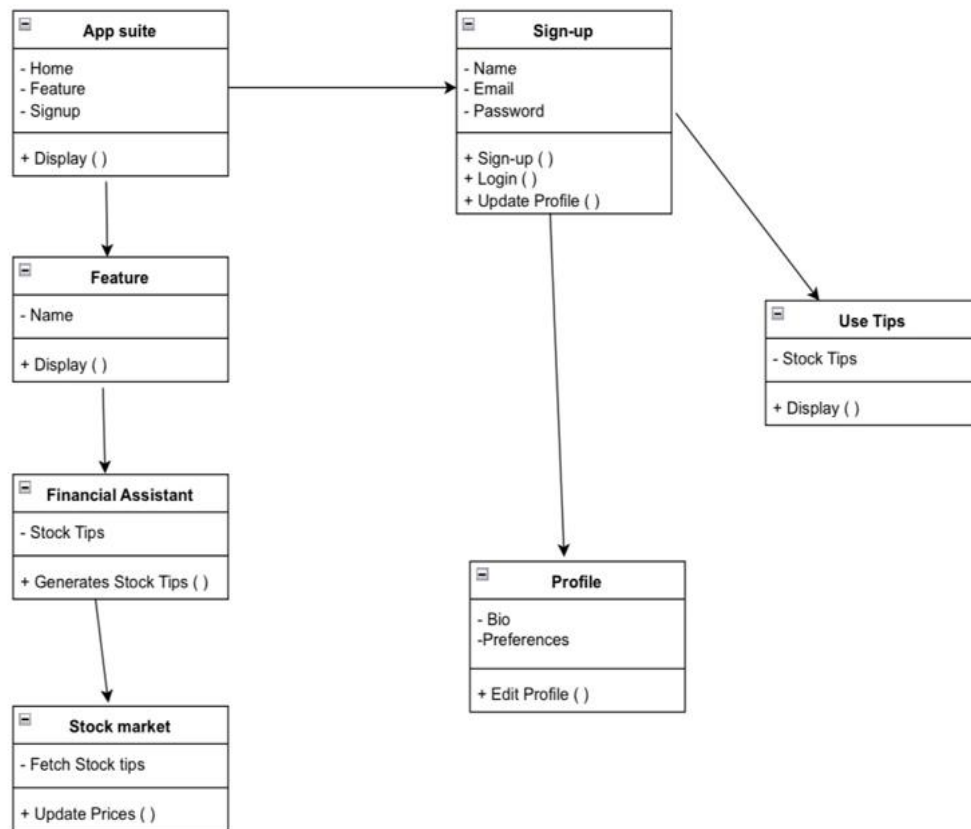
- AI-driven recommendations based on market analysis and trends.
- Educational tools on stock market fundamentals.

► Customizable User Interface:

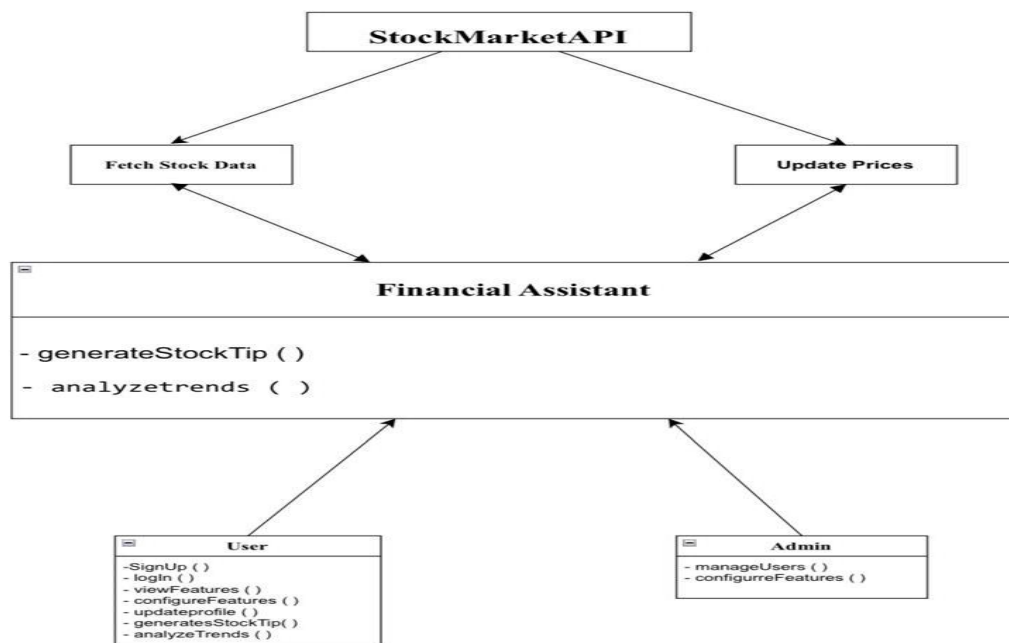
- Personalized dashboard and reports.
- Easy setup for different types of business models (e.g., product-based, service-based).

SYSTEM DESIGN

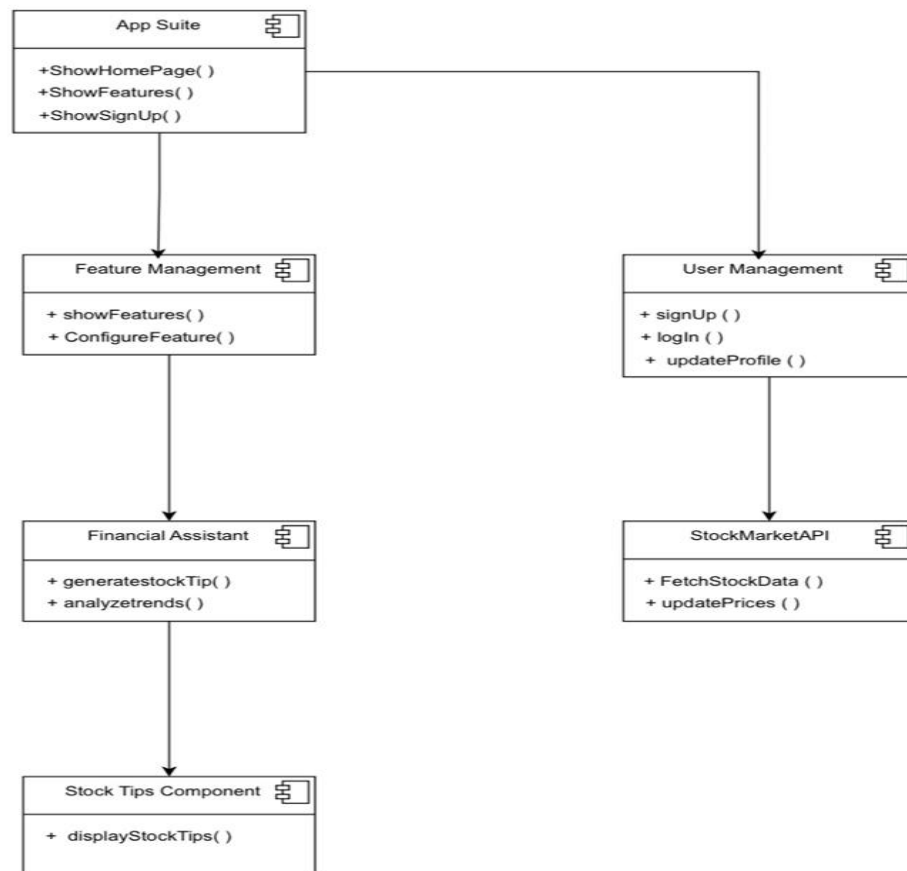
► Class Diagram:



► Use Case Diagram:



► Component Diagram:



INSTALLATION PROCESS

How to Install Visual Studio Code

Step 1: Visit the Official Website of the Visual Studio Code using any web browser like Google Chrome, Microsoft Edge, etc.?

Step 2: Press the “**Download for Windows, Mac etc**” button on the website to start the download of the Visual Studio Code Application.

Step 3: When the download finishes, then the **Visual Studio Code Icon** appears in the downloads folder.

Step 4: Click on the **Installer** icon to start the installation process of the Visual Studio Code.

Step 5: After the Installer opens, it will ask you to accept the terms and conditions of the Visual Studio Code. Click on **I accept the agreement** and then click the **Next** button.

Step 6: Choose the location data for running the Visual Studio Code. It will then ask you to browse the location. Then click on the **Next** button.

Step 7: Then it will ask to begin the installation setup. Click on the **Install** button.

Step 8: After clicking on Install, it will take about 1 minute to install the Visual Studio Code on your device.

Step 9: After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the “**Launch Visual Studio Code**” checkbox and then click **Next**.

Step 10: After the previous step, the **Visual Studio Code window** opens successfully. Now you can create a new file in the Visual Studio Code window and choose a language of yours to begin your programming journey!

REQUIREMENT DOCUMENTATION

1. Clarity and Completeness of Requirements

- **Clarity:**

- The description is fairly clear about the project's goal, i.e., creating a customized ERP platform for student entrepreneurs. The use of simple, straightforward language ensures that the project's objectives are easily understood.
- However, some terms could use further clarification. For example:
 - **Core business operations:** It would be helpful to specify the exact areas this includes (inventory, HR, CRM, etc.).
 - **Stock market tips:** Will these be real-time tips, curated advice, or based on data analysis? Clarifying this will make the feature clearer for readers.
- The overall purpose of the platform—simplifying business processes and assisting growth—is well-articulated but could benefit from more specifics around how it will achieve this for the student entrepreneurs.

- **Completeness:**

- The document includes key features, but additional details would make it more comprehensive:
 - **Modules:** Specify what modules the ERP will include. Examples could be financial management, HR, inventory management, etc.
 - **User interactions:** How will the users (student entrepreneurs) interact with the platform? Will there be dashboards, mobile accessibility, etc.?
 - **Technology:** Will the platform offer cloud-based services, mobile apps, or integrations with other tools like payment gateways?
- Expanding on these points will offer a more complete picture of the ERP platform and its intended capabilities.

2. Use of Appropriate Format and Structure

- **Format:**

- The description is currently presented in paragraph form, which can be hard to read, especially when listing features. A more structured approach with **headings** and **bullet points** would make it easier to navigate. For example:
 - **Project Overview**
 - **Objective**
 - **Key Features**
 - **User Benefits**
- **Lists and sub-points** would also help in organizing the key features for readability, making it easy to find specific points.

- **Structure:**

- The structure is logical but could benefit from having sections broken down into **specific areas of focus**:
 - **Functional Requirements:** These are specific actions the system must be able to perform (e.g., financial management, business analytics, etc.).
 - **Non-Functional Requirements:** These might include scalability, performance (response times), or data security, which are crucial for platforms handling financial and operational data.
- Additionally, consider introducing **user stories or scenarios** to illustrate how different types of student entrepreneurs would use the system.

3. Traceability of Requirements

- **Traceability:**

- At this stage, the requirements are not traceable. To achieve traceability, consider the following improvements:
 - **Requirement IDs:** Assign unique identifiers to each requirement (e.g., REQ-001: Financial Assistant or REQ-002: Business Operations Integration). This allows each requirement to be tracked from its initial definition through development and testing.
 - **Traceability Matrix:** Introduce a matrix linking business objectives (such as "simplify complex business processes") to specific system features (like "integrated financial assistant"). This ensures that every feature developed can be traced back to a business need.
 - **Test Cases:** For each requirement, ensure there is a corresponding test case to validate its implementation. For example, "REQ-001: Financial Assistant" could have a test case verifying that the assistant offers real-time stock tips.

Conclusion

Vision: Equip Meinders School of Business students with powerful tools to manage their ventures effectively and intelligently.

Impact: Enhance their entrepreneurial success through real-time financial insights, streamlined operations, and investment opportunities.

