

Investment Portfolio Management System

Github Link: https://github.com/DeepParekh03/MiniProject_InvestmentPortfolioManagement

1. Introduction

The objective of this project is to digitize client and portfolio management for a wealth management firm.

The system eliminates data loss, avoids miscommunication, and improves user engagement by providing a centralized platform to manage clients and their investment portfolios.

The application is built using Vue.js for the frontend, Vuex for state management, localStorage for persistence, and Jest for testing.

2. Key Features

Client Management

- Create new clients with name, email, and status.
- Status options: **Active, Pending, Inactive.**
- Ability to edit client details and change status at any time.
- Delete clients from the system.
- When a client is deleted, all their associated portfolios are also removed.
- **Validations:**
 - Name is required.
 - Email is required, must be in valid format, and must be unique.

Portfolio Management

- Create portfolios for specific clients.
- Portfolio status options: **Upcoming, Active, Closed.**
- Edit portfolio details and update holdings.
- View portfolio details including:
 - Client information
 - Holdings (Stocks, Mutual Funds, ETFs, Bonds)
 - Pie chart of allocation
 - Bar chart of returns growth

- **Business Rules:**
 - Portfolios cannot be created for clients with **Inactive** status.
 - Portfolios with **Upcoming** status cannot have holdings until activated.
 - Portfolios with **Closed** status cannot add new holdings.

3. Data Storage & State Management

- **Vuex Store:**
 - **Clients Module:** Handles client creation, update, deletion, and retrieval.
 - **Portfolios Module:** Handles portfolio creation, update, deletion, and retrieval by client or status.
- **Local Storage:**
 - Ensures persistence across browser sessions.
 - Vuex mutations automatically sync state with local storage.
- **Single Source of Truth:**
 - Components only interact with Vuex, not directly with localStorage.

4. Application Flow

Client Flow

1. Manager creates a client in **UserForm.vue**.
2. Client appears in **UserList.vue** with status badge.
3. Manager can edit client details or delete client.
4. Status must be changed to **Active** before assigning portfolios.

Portfolio Flow

1. Manager selects client and creates portfolio in **PortfolioForm.vue**.
2. If client is **Inactive**, system blocks portfolio creation.
3. If status is **Upcoming**, holdings remain empty.
4. Portfolio appears in **PortfolioList.vue** with correct status filter.
5. Manager clicks portfolio to view details in **PortfolioDetail.vue**.
6. Charts display allocation breakdown and returns history.

5. Visualization

- **Pie Chart:** Represents portfolio allocation across Stocks, Mutual Funds, ETFs, and Bonds.
- **Bar Chart:** Shows returns history or portfolio growth trend over time.
- Charts provide at-a-glance insights for portfolio optimization.

6. Testing

The system uses **Jest** and **Vue Test Utils** for testing.

Test coverage includes:

1. **ClientListForm**
 - Rendering of client table.
 - Render of Header and Addition button.
2. **PortfolioListForm**
 - Renders Portfolios List and allows filtering by status (Upcoming, Active, Closed).
 - Render of header and add portfolio button
3. **PortfolioCreationForm**
 - Validation for fields for creation of portfolio.
 - Disabling holdings for upcoming portfolios.
4. **PortfolioDetail**
 - Rendering of portfolio status.
 - Display of portfolio and client information.

7. System Architecture

Technology Stack:

- **Frontend Framework:** Vue.js (Composition API)
- **State Management:** Vuex
- **Persistence:** Local Storage
- **Routing:** Vue Router
- **Testing:** Jest + Vue Test Utils

8. Setup Instructions

1. Clone the Repository

```
git clone https://github.com/your-username/portfolio-management.git  
  
cd portfolio-management
```

2. Install Dependencies

```
npm install
```

3. Run the Application

```
npm run serve
```

- The application will start locally.
- Open your browser and go to <http://localhost:8080> to access the app.

4. Run Tests

- Add the following in `package.json` under `scripts`:

```
"scripts": {  
  
  "test": "jest"  
  
}
```

Application Flow

Client Pages

Client Addition/ Updation

Portfolio Manager

ClientsPortfolios

Add New Client

Full Name *

Enter client's full name

Email Address *

Enter email address

Phone Number *

9372538821

Status *

Active

Address *

Enter full address

Notes

Add any additional notes...

Cancel

Save Client

Portfolio Manager

ClientsPortfolios

Edit Client

Full Name *

Krrish Kothari

Email Address *

krrish@gmail.com

Phone Number *

9372532202

Status *

Active

Address *

Lokandwala, Andheri, Mumbai, Maharashtra, India

Notes

Add any additional notes...

Cancel

Update Client

Client List

Portfolio Manager

Clients

Portfolios

Clients

+ Add Client

Client Management

Q Search clients...

| Name | Email | Phone | Status | Actions |
|----------------|-------------------|------------|----------|-----------------------------------|
| Deep Smith | deepp@zeta.tech | 9372532881 | Active | <div><div></div><div></div></div> |
| Krrish Kothari | krrish@gmail.com | 9372532202 | Active | <div><div></div><div></div></div> |
| Yash Parmar | yash@gmail.com | 9870644310 | Active | <div><div></div><div></div></div> |
| Niketan Ghali | niketan@gmail.com | 9865432109 | Active | <div><div></div><div></div></div> |
| John Smith | john@gmail.com | 9234561232 | Pending | <div><div></div><div></div></div> |
| Sridev Samarth | sridev@gmail.com | 9372532889 | Inactive | <div><div></div><div></div></div> |
| Tej Parmar | tej@gmail.com | 9372532876 | Active | <div><div></div><div></div></div> |
| Shubh Darji | shubh@gmail.com | 9870634340 | Pending | <div><div></div><div></div></div> |

Portfolio Pages

Portfolio Creation/ Updation

Portfolio Manager

Clients

Portfolios

Create New Portfolio

Basic Information

Portfolio Name *

Enter portfolio name

Client *

Start Date *

dd/mm/yyyy

Status *

Active

Notes

Additional notes...

Holdings

+ Add Holding

| Asset Name | Type | Allocation % | Initial Value | Current Value |
|------------|-------|--------------|---------------|---------------|
| e.g., AAPL | Stock | 0 | 0 | 0 |

Cancel

Save Portfolio

Portfolio Manager

ClientsPortfolios

✕

Edit Portfolio

Basic Information

Portfolio Name *

Growth

Client *

Deep Smith

Start Date *

22/09/2025

Status *

Active

Notes

Additional notes...

Holdings

+ Add Holding

| Asset Name | Type | Allocation % | Initial Value | Current Value | |
|-------------------|-------------|--------------|---------------|---------------|--|
| AAPL | Stock | 30 | 2000 | 3000 | |
| IDEA | Stock | 30 | 2000 | 2500 | |
| BNP Paribhas Fund | Mutual Fund | 20 | 1500 | 1300 | |

Portfolio List

Portfolio Manager

ClientsPortfolios

Portfolios

+ New Portfolio

Portfolio Management

Search portfolios...

UPCOMING

ACTIVE

CLOSED

| Portfolio Name | Client | Start Date | Status | Returns % | Value | Actions |
|----------------|----------------|------------|--------|-----------|---------|---------|
| Growth | Deep Smith | 22/09/2025 | ACTIVE | +35.4% | ₹8,800 | |
| Long Term | Krrish Kothari | 22/09/2025 | ACTIVE | +39.3% | ₹20,900 | |
| Conservative | Yash Parmar | 23/09/2025 | ACTIVE | -13.3% | ₹13,000 | |

Portfolios

[+ New Portfolio](#)

Portfolio Management

UPCOMING

ACTIVE

CLOSED

| Portfolio Name | Client | Start Date | Status | Returns % | Value | Actions |
|--------------------|---------------|------------|----------|-----------|-------|-------------------------------------------|
| Balanced Portfolio | Niketan Ghali | 22/09/2025 | UPCOMING | - | ₹0 | View Edit |
| Growth Strategy | Tej Parmar | 22/09/2025 | UPCOMING | - | ₹0 | View Edit |

Portfolios

[+ New Portfolio](#)

Portfolio Management

UPCOMING

ACTIVE

CLOSED

| Portfolio Name | Client | Start Date | Status | Returns % | Value | Actions |
|----------------|-------------|------------|--------|-----------|---------|-------------------------------------------|
| Tax Saver | John Smith | 22/09/2025 | CLOSED | +30.0% | ₹13,000 | View Edit |
| Long Term | Shubh Darji | 22/09/2025 | CLOSED | +27.8% | ₹23,000 | View Edit |

Portfolio Detail



Portfolio Manager

Clients

Portfolios

Growth

Edit Portfolio

Close Portfolio

Client Information

Deep Smith

deep@zeta.tech

9372532881

Portfolio Summary

Status

ACTIVE

Start Date

22/09/2025

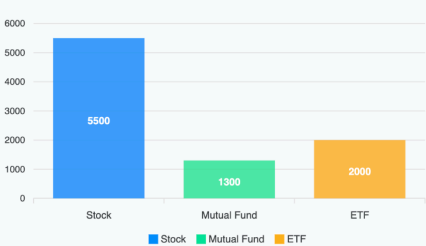
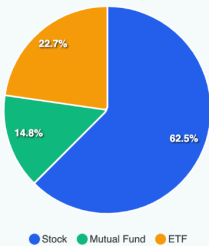
Total Investment

₹6,500

Current Value

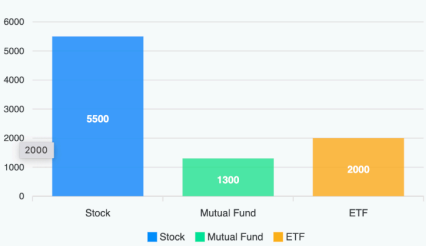
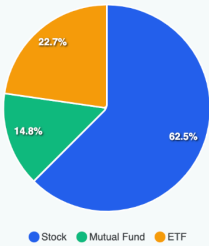
₹8,800

Portfolio Distribution



9372532881

Portfolio Distribution



Holdings

| Asset | Type | Allocation % | Current Value | Gain/Loss |
|------------------|-------------|--------------|---------------|-----------|
| AAPL | Stock | 30% | ₹3,000 | ▲ +50.0% |
| IDEA | Stock | 30% | ₹2,500 | ▲ +25.0% |
| BNP Paribas Fund | Mutual Fund | 20% | ₹1,300 | ▼ -13.3% |
| Quantum ETF FOF | ETF | 20% | ₹2,000 | ▲ +100.0% |

Mobile View

Client

Portfolio

Add New Client

Full Name *

Enter client's full name

Email Address *

Enter email address

Phone Number *

9372538821

Status *

Active

Address *

Enter full address

Notes

Add any additional notes...

Portfolio

Edit Client

Full Name *

Krrish Kothari

Email Address *

krrish@gmail.com

Phone Number *

9372532202

Status *

Active

Address *

Lokandwala, Andheri, Mumbai, Mahara

Notes

Add any additional notes...

Portfolio Manager

Clients

Portfolios

Clients

+ Add Client

Client Management

Q Search clients...

Deep Smith

Active

Email: deepp@zeta.tech

Phone: 9372532881

Krrish Kothari

Active

Email: krrish@gmail.com

Phone: 9372532202

Portfolio

Portfolios

+ New Portfolio

Portfolio Management

Q Search portfolios...

UPCOMING

ACTIVE

CLOSED

Growth

ACTIVE

Client: Deep Smith

Start Date: 22/09/2025

Returns: +35.4%

Value: ₹8,800

👁

✎

Long Term

ACTIVE

Client: Krrish Kothari

Start Date: 22/09/2025

Portfolios

+ New Portfolio

Portfolio Management

Q Search portfolios...

UPCOMING

ACTIVE

CLOSED

Balanced Portfolio

UPCOMING

Client: Niketan Ghali

Start Date: 22/09/2025

Returns:-

Value: ₹0

👁

✎

Growth Strategy

UPCOMING

Client: Tej Parmar

Start Date: 22/09/2025

Returns:-

Portfolios

+ New Portfolio

Portfolio Management

Q Search portfolios...

UPCOMING

ACTIVE

CLOSED

Tax Saver

CLOSED

Client: John Smith

Start Date: 22/09/2025

Returns: +30.0%

Value: ₹13,000

👁

✎

Long Term

CLOSED

Client: Shubh Darji

Start Date: 22/09/2025

Returns: +27.0%

Portfolio Manager

👤 Clients

📁 Portfolios

Growth

✎ Edit Portfolio

✖ Close Portfolio

Client Information

Deep Smith

✉ deep@zeta.tech

📞 9372532881

Portfolio Summary

Status

ACTIVE

Start Date

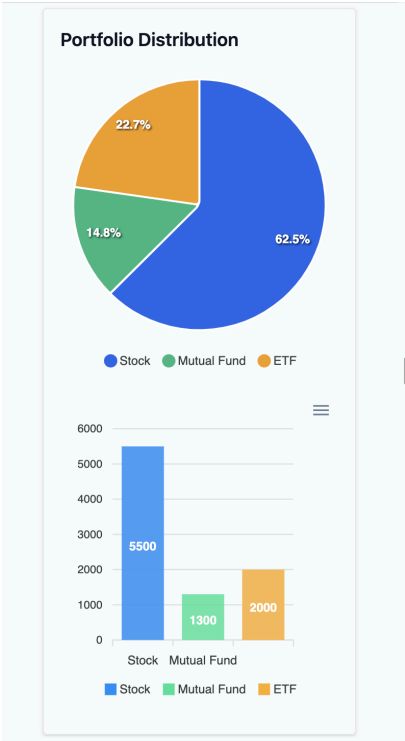
22/09/2025

Total Investment

₹6,500

Current Value

₹8,800



Holdings

AAPL

Stock

Allocation: 30%

Current Value: ₹3,000

Gain/Loss: ▲ +50.0%

IDEA

Stock

Allocation: 30%

Current Value: ₹2,500

Gain/Loss: ▲ +25.0%

BNP Paribhas Fund

Mutual Fund

Allocation: 20%

Current Value: ₹1,300

Gain/Loss: ▼ -13.3%

Quantum ETF FOF

ETF

Allocation: 20%

Current Value: ₹2,000

Gain/Loss: ▲ +100.0%