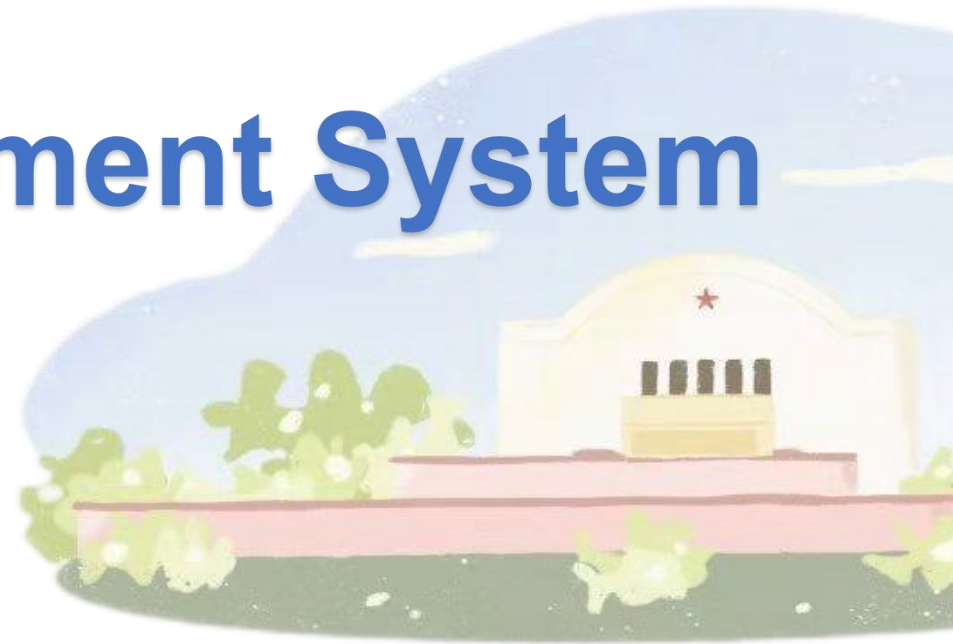


Portfolio Management System

**Amber House
Team 4
LittleBankXA**

July 31, 2025

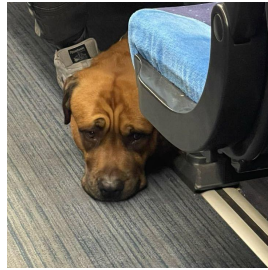


• Team Members •



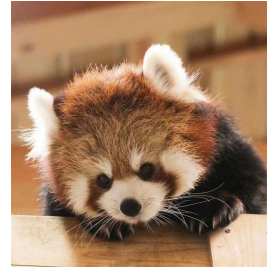
Sharon Shang Guan

Database &
Backend



Kelvin Chang

System
Architecture &
Frontend



Richard Wang

API Integration
& Backend



Anthony Wang

Frontend &
Testing

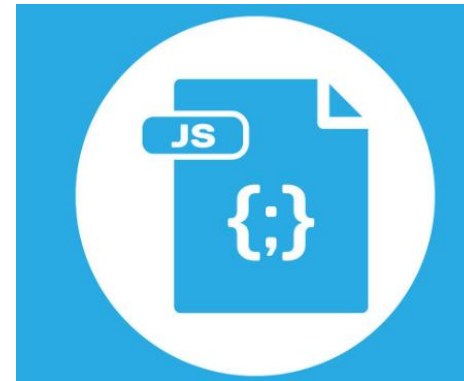
• Project Introduction •

- Goal
- Develop a financial portfolio management web app.
 - ▶ Manage stocks and bonds portfolios.
 - ▶ RESTful API backend; responsive web frontend.
 - ▶ Real-time asset tracking, trade simulation, interactive charts.



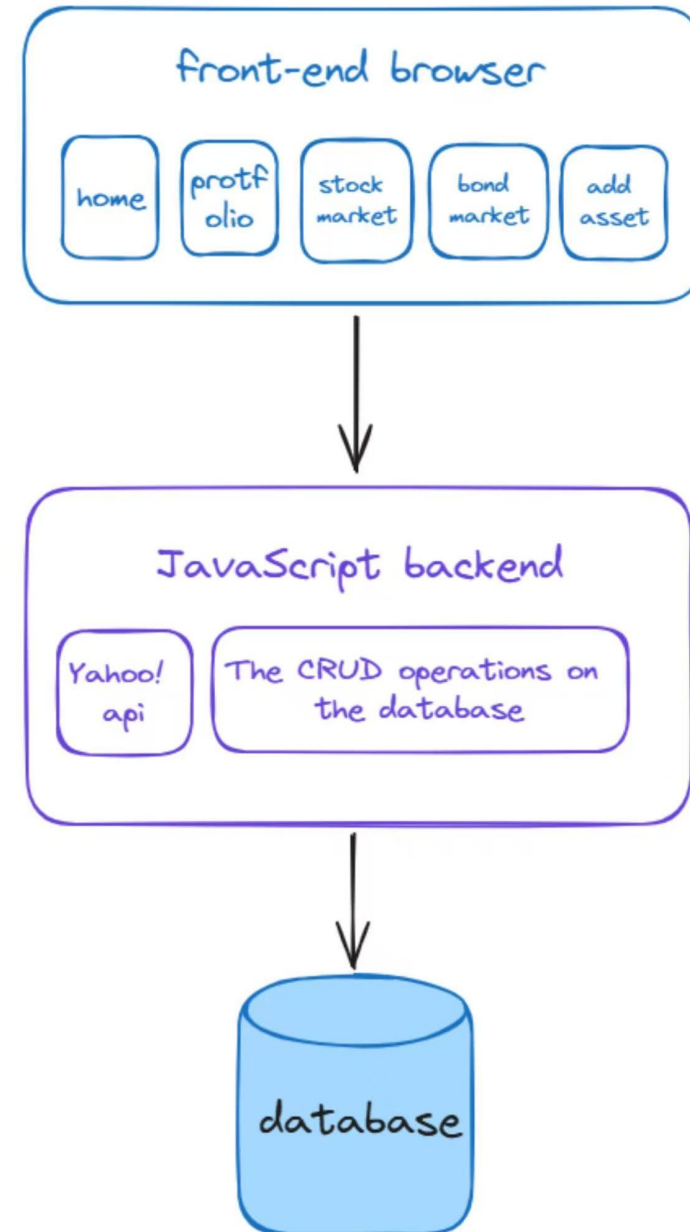
• System Flow •

- 1. Frontend: HTML/CSS/JS interface.
- 2. API Requests: Fetch API calls.
- 3. Backend: Node.js (Express.js) processes requests.
- 4. Database: MySQL CRUD operations.
- 5. External Data: Yahoo Finance API integration.
- 6. Response: JSON data updates UI dynamically.

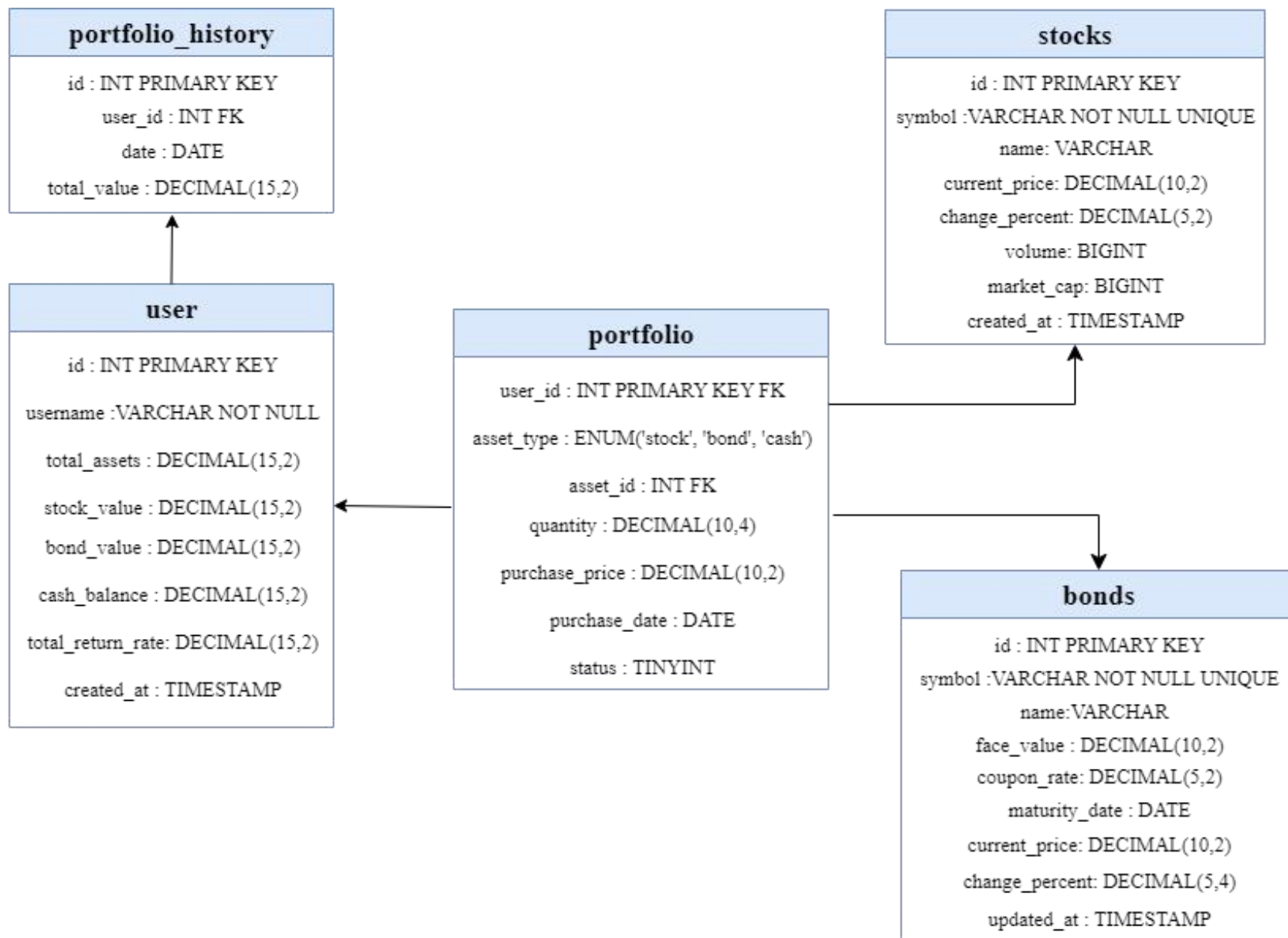


• System Architecture •

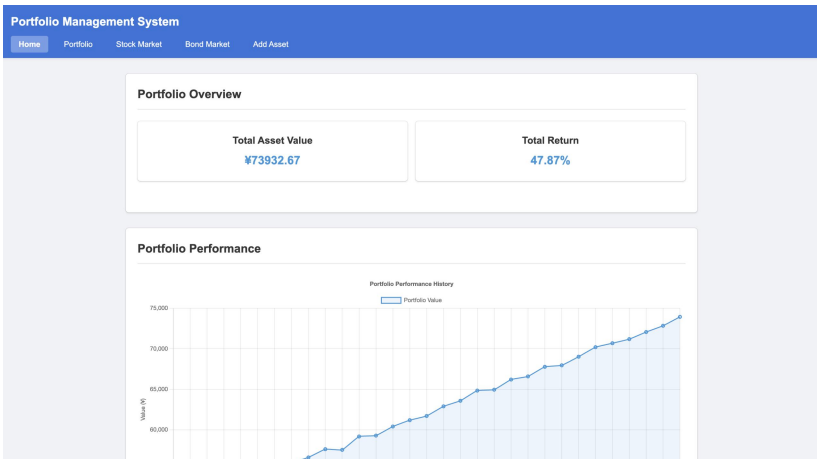
- Three-Tier Architecture
- ► Presentation Layer:
HTML/CSS/JavaScript
- ► Application Layer: Node.js,
Express.js, REST API
- ► Data Layer: MySQL database



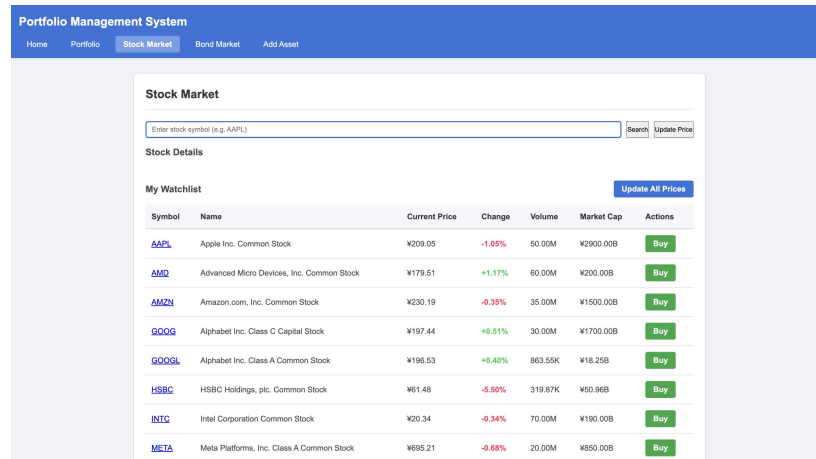
Database Design



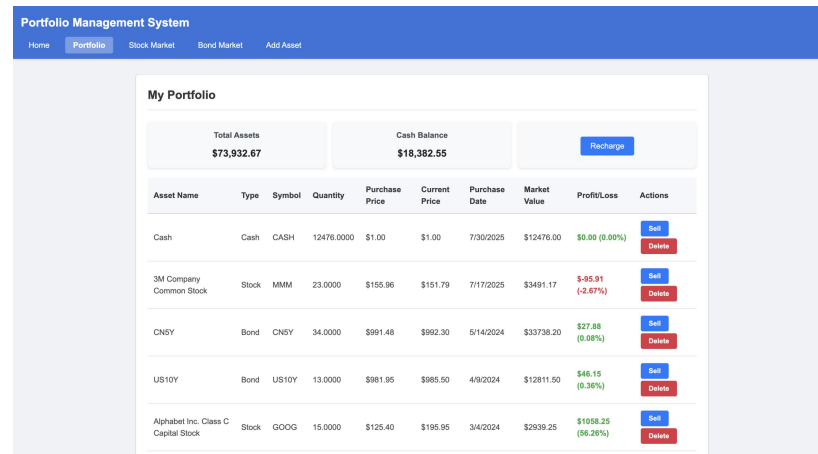
Application Screenshots



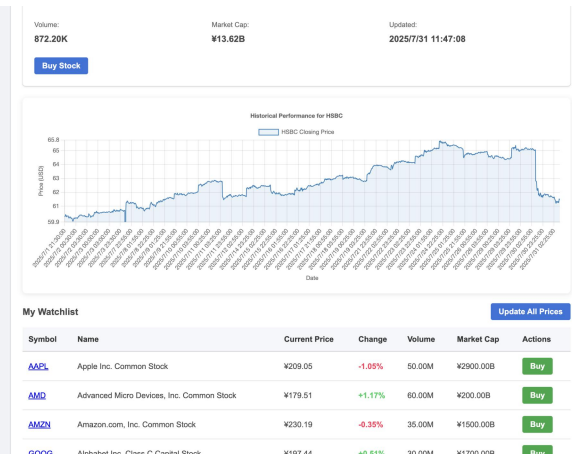
Dashboard Overview



Stock Market Page

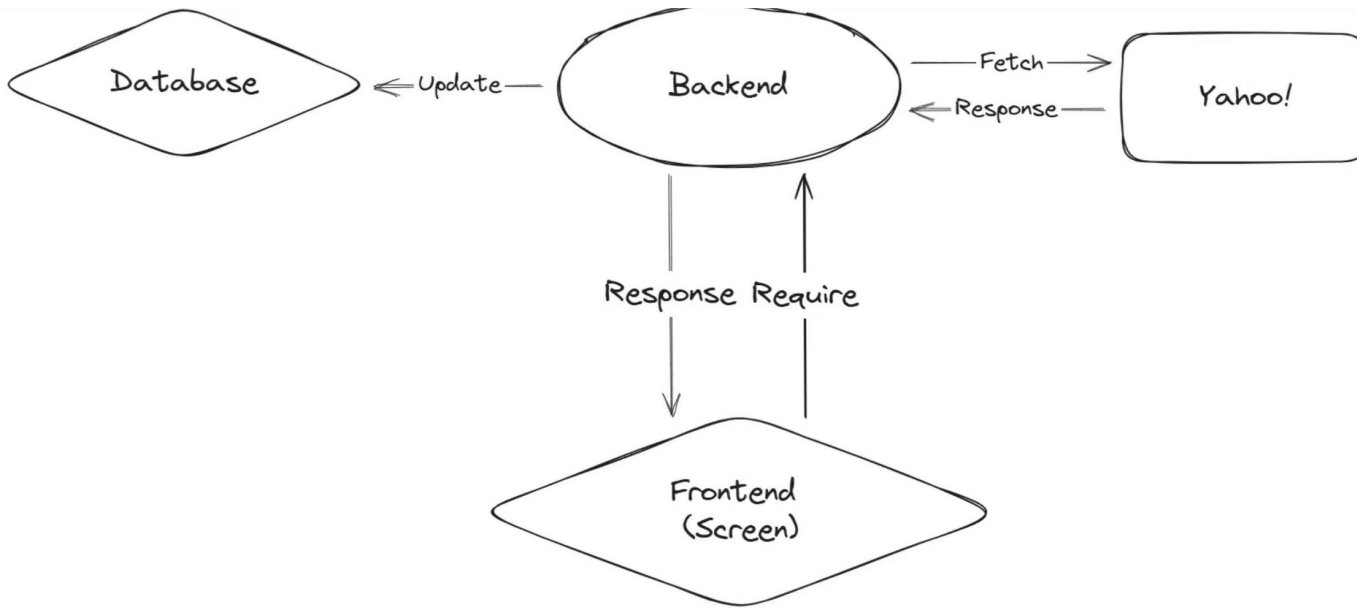


Portfolio Detail View



Historical Chart

• Call The External API •



Yahoo Finance API

The Yahoo! API delivers global financial market data covering stocks, bonds, forex, and cryptocurrencies, including real-time quotes, historical data, and financial statements.



Live Demonstration

• Conclusion & Next Steps •

01



User authentication;
multi-user environment.

Expand asset types
(cryptocurrencies, ETFs).



02

03



Advanced analytics and
reporting

Modernize UI/UX (React/Vue).



04



Thank you!