

Aaron McKinley BEng. (Hons) in Software & Electronic Engineering



Wealth Tracking Framework

Track your crypto, stocks, bonds, and more—with live price updates and transaction locations all in one place at wealth-tracking-framework.com

Summary

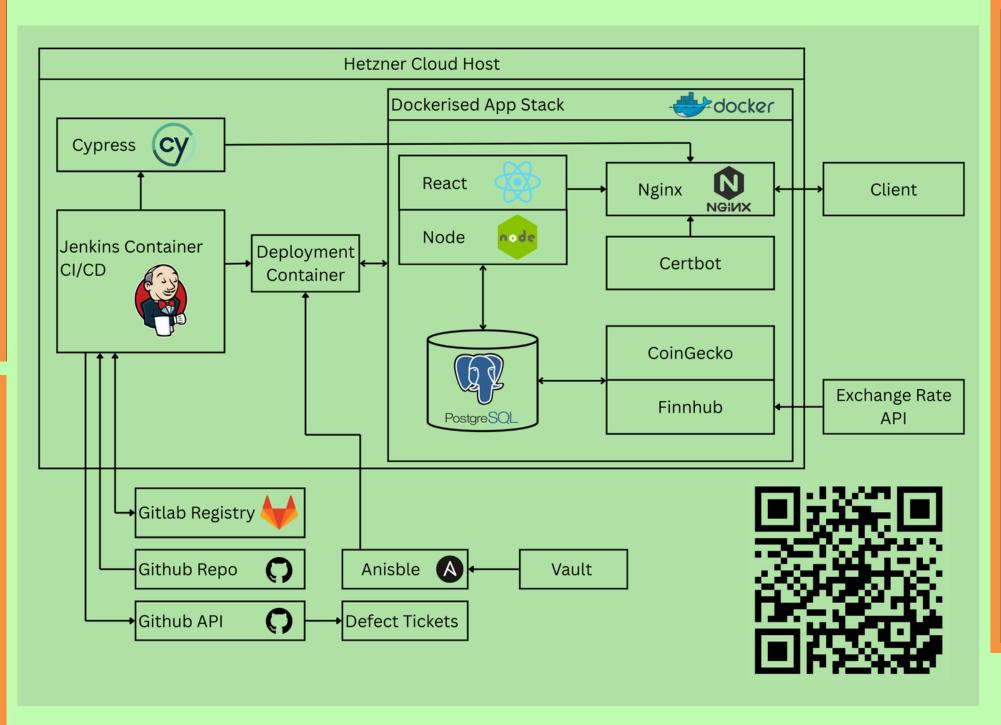
WTF is a full-stack web app for tracking different investments and savings in one place. Unlike most apps tied to a single platform. It fetches real-time data from multiple sources while also showcasing a complete end-to-end DevOps implementation.

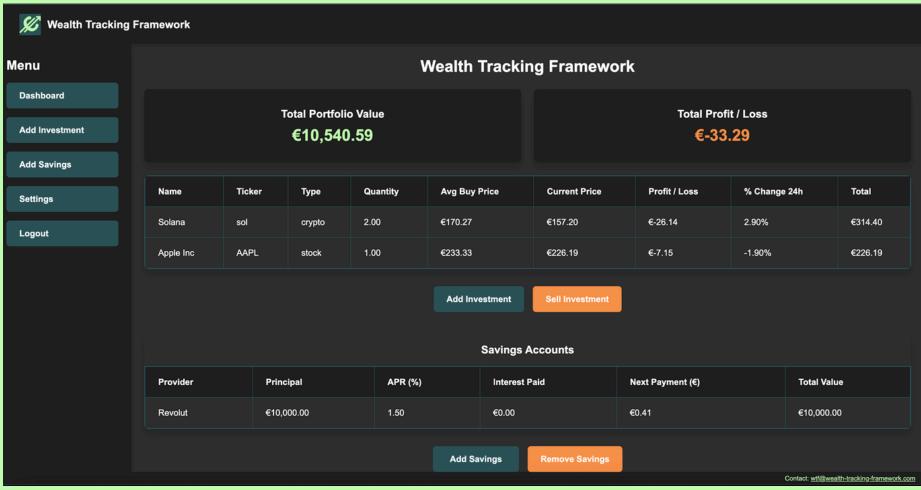
Languages

- **Javascript** Core language for app logic, configurations and tests.
- HTML embedded in react files.
- YAML- Docker Compose and Ansible playbooks.
- **Shell** Entrypoints/utility scripts and cronjobs.
- **SQL** Generated by database migrations.
- **Docker syntax** Container images for each service.
- Groovy- Jenkinsfiles for CI/CD.

CI/CD Flow

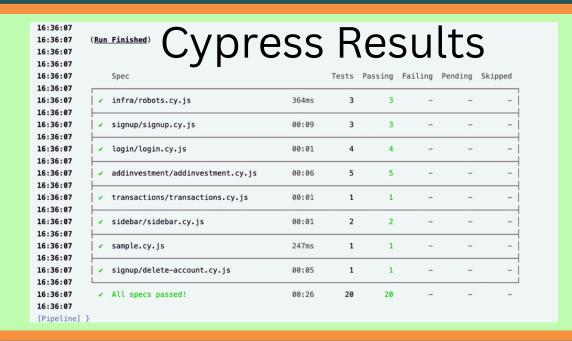
Jenkins waits for a GitHub hook it then builds the updated code and pushes the images to the registry. That starts the deployment pipeline which when finished starts the test and lint jobs. A Cypress container is created and uses the live app to run the spec files. Any failure creates a GitHub ticket.





Technologies

- **React** Responsive dashboard with live asset updates.
- **Node.js** -Robust backend with JWT authentication.
- **PostgreSQL** Stores structured financial and transaction data.
- **Docker** Microservices orchestrated via Compose.
- **Ansible** Automates setup and secures secrets with Vault.
- **Jenkins** CI/CD pipelines for build, push, deploy, test and lint.
- Cypress End-to-end testing.
- **APIs** CoinGecko, Finnhub, GitHub, and exchange rates provide live data.



Results

Users can securely log in, add investments, and track live portfolios, all while the system upholds DevOps principles through automated CI/CD pipelines and fully containerised deployment.