

# CLIENT TIER

## End User

Web Browser (Chrome / Firefox / Safari)

Login • Portfolio • Alerts

# PRESENTATION LAYER

## React Frontend

Port 3000

Login / Register

Dashboard

Holdings Table

Add / Edit Holdings

Alerts Module

# APPLICATION LAYER

## Express Backend

Node.js + Express — Port 5000

Auth • Portfolio • Price Service • Alerts  
Database Controller

## Sessions Store

Express Sessions (User Auth State)

# DATA PERSISTENCE LAYER

## PostgreSQL

Port 5432

Users • Holdings • Alerts Tables

# EXTERNAL SERVICES

## Stock Market APIs

Yahoo Finance • Alpha Vantage

Real-Time Price Fetching • Ticker Validation

# ACCESS CONTROL

React: Authenticated UI • Express: Sessions + CRUD

PostgreSQL: User & Portfolio Storage • APIs: Read-Only Market Data