

# Fullstack Assessment

## Overview

For this assessment, you'll need to implement a web-based stock portfolio app. For the purpose of this exercise a stock is simply an asset that can be bought or sold (like a house) at a price that continuously rises and falls throughout the day. Up to date pricing information is available for free via the [IEX API](#) or the [Alpha Vantage API](#), but feel free to use any API that you're familiar with.

A guide to the UI can be observed below. Your implementation doesn't need to be an exact match but should implement all of the listed user stories. In addition to the user stories, your submission will be assessed for readability, efficiency, and design choices made. All code submitted should be placed in a public repository that can be shared and must contain a clear commit history.

## Design & Style Guide

The design guide consists of four wireframe screenshots of a web application, each within a browser window titled 'A Web Page'.

- Sign IN:** A central box contains the text 'Sign IN' above two input fields labeled 'email' and 'password'.
- Portfolio (\$5943.34):** The page has a header with 'Portfolio' and 'Transactions' links. The main content shows a table of stock holdings:

Stock	Shares	Price
AAPL	6	\$2043.09
STWD	40	\$2043.09
NFLX	86	\$2043.09
MSFT	10	\$2043.09
ATT	5	\$2043.09

To the right of the table is a 'Cash - \$5000.00' label and a form with 'Ticker', 'Qty', and 'Buy' fields.
- Register:** A central box contains the text 'Register' above three input fields labeled 'name', 'email', and 'password'.
- Transactions:** The page has a header with 'Portfolio' and 'Transactions' links. The main content is titled 'Transactions' and lists a series of 'BUY' transactions:
  - BUY (AAPL) - 6 Shares @ 300.00
  - BUY (STWD) - 40 Shares @ 20.56
  - BUY (AAPL) - 6 Shares @ 300.00
  - BUY (STWD) - 40 Shares @ 20.56
  - BUY (AAPL) - 6 Shares @ 300.00

## User Stories (6)

1. As a user, I want to create a new account with my name, email, and password so that I can buy and trade stocks.
  - Default the user's cash account balance to \$5000.00 USD.
  - A user can only register once with any given email.
2. As a user, I want to authenticate via email and password so that I can access my account.
3. As a user, I want to buy shares of stock at its current price by specifying its ticker symbol and the number of shares so that I can invest.
  - A user can only buy whole number quantities of shares.
  - A user can only buy shares if they have enough cash in their account for a given purchase.
  - A user can only buy shares if the ticker symbol is valid.
4. As a user, I want to view a list of all transactions I've made to date (trades) so that I can perform an audit.
5. As a user, I want to view my portfolio (a list of all the stocks I own along with their current values) so that I can review performance.
  - Current values should be based on the latest price and quantity owned for a given stock.
  - Each stock owned should only appear once.
6. As a user, I'd like to see the font color of stock symbols and current prices in my portfolio change dynamically to indicate performance.
  - Display red when the current price is less than the day's open price.
  - Display grey when the current price is equal to the day's open price.
  - Display green when the current price is greater than the day's open price.