



# Groww Assignment | GrowwStonks

FRONT-END ASSIGNMENT REVIEW ROUND - GROWW

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## Problem:

Create a web application for a stocks/etfs broking website.

**Note:** Application should be created using **NextJs**.

## App contains mainly two pages:

1. **Explore page:** A page with Top gainers and Losers section. These two are in tabs. Each section contains a grid of cards (20 in numbers and a CTA to load more) that shows information about stocks/etfs. When this card is clicked it should route the user to the product page of the same stocks/etfs.
2. **Product Page:** A page of stocks/etfs showing basic information about it and line graph of prices.
  - Each page contains a common header showing application name and a search bar.
  - This search bar should show suggested stocks when user types in it.

**Note:** A sample UI is provided at the bottom of this document.

## Data API:

All the required data could be fetched from API endpoint provided by <https://www.alphavantage.co>. Go through the documentation for more details.

These endpoints can be used for all the required data:

- Alpha Intelligence -> Top Gainers & losers
- Fundamental data -> Company overview
- Core stocks APIs -> Ticker search

## Points to keep in check:

- You'll need an api key in order to access the endpoints, generate an api key for the app. Check limit on request per minute and request per day.
- You can use any **state management library** (Redux/Redux toolkit, Zustand, Jotai, etc...).
- Handle **Loading/Error/Empty** state for all the cases (wherever necessary).
- Follow a standard **well defined folder structure**.
- UI should be **responsive (support multiple screen sizes)**.
- **Deploy working code** on any website hosting platform (Github/Vercel/Netlify/Firebase etc...).
- Make sure you do not use any utility library such as underscore.js, lodash, day.js etc.
- You can use a third party library for line graphs.
- Cache API responses (with expiration) for both pages.
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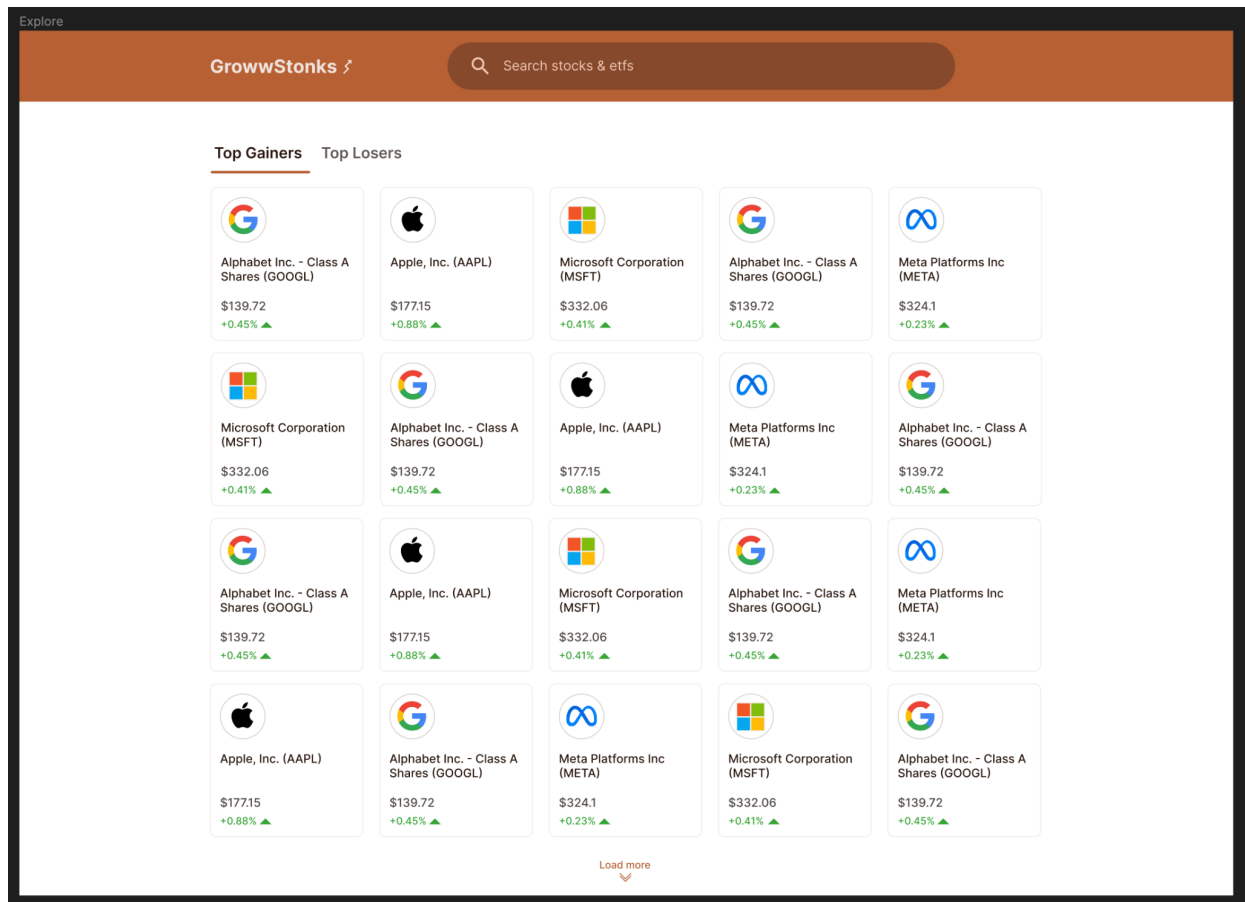
## Brownie Points:

**Note:** Focus on the basic functionality first. Once you have working basic functionality you can start exploring below points.

- Try not to create the exact same UI which is provided. Explore and use your creativity to come up with cool yet usable UI.
- Try to use the Next Js server side rendering feature.
- Use Techniques to show recently searched items as suggested items in the search bar.
- Categorize searches in chips as “All”, “Stocks”, “Etf’s” and filter the response to show only selected chip’s items in the search bar.
- Create API middleware or interceptor.
- Focus on Optimization of network bandwidth and assets (like images) (use lazy loading and other techniques).
- Add theme to the application which can be switched dynamically (Light/Dark mode).
- The documentation of <https://www.alphavantage.co> have variety of endpoints to see if you can use them to add more functionality to the application.
- Try to Mock Live price ticker using Pub-Sub mechanism (mock socket connection).

**Note:** You are not required to cover any or all of the “Brownie Points”. If the basics of the application of broken implementation of “Brownie Points” section will be voided.

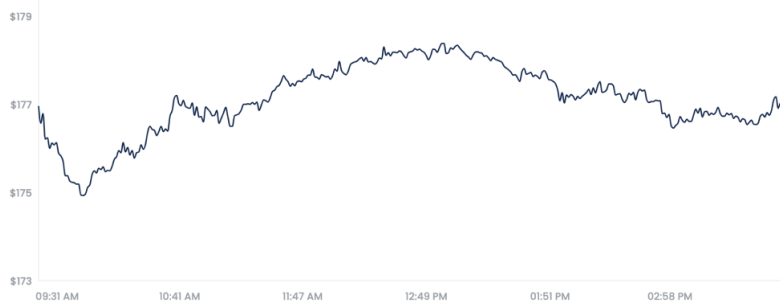
## Sample UI:





**APPLE INC**  
AAPL, Common Stock  
NSQ

**\$177.15**  
+0.41% ▲



1D 1W 1M 3M 6M 1Y

#### About APPLE INC

Apple Inc. is an American multinational technology company that specializes in consumer electronics, computer software, and online services. Apple is the world's largest technology company by revenue (totalling \$274.5 billion in 2020) and, since January 2021, the world's most valuable company. As of 2021, Apple is the world's fourth-largest PC vendor by unit sales, and fourth-largest smartphone manufacturer. It is one of the Big Five American information technology companies, along with Amazon, Google, Microsoft, and Facebook.

Industry: Electronic computers

Sector: Technology

52-Week Low  
**\$123.64**

Current price: \$177.15

52-Week High  
**\$197.96**

Market Cap  
**\$2.77T**

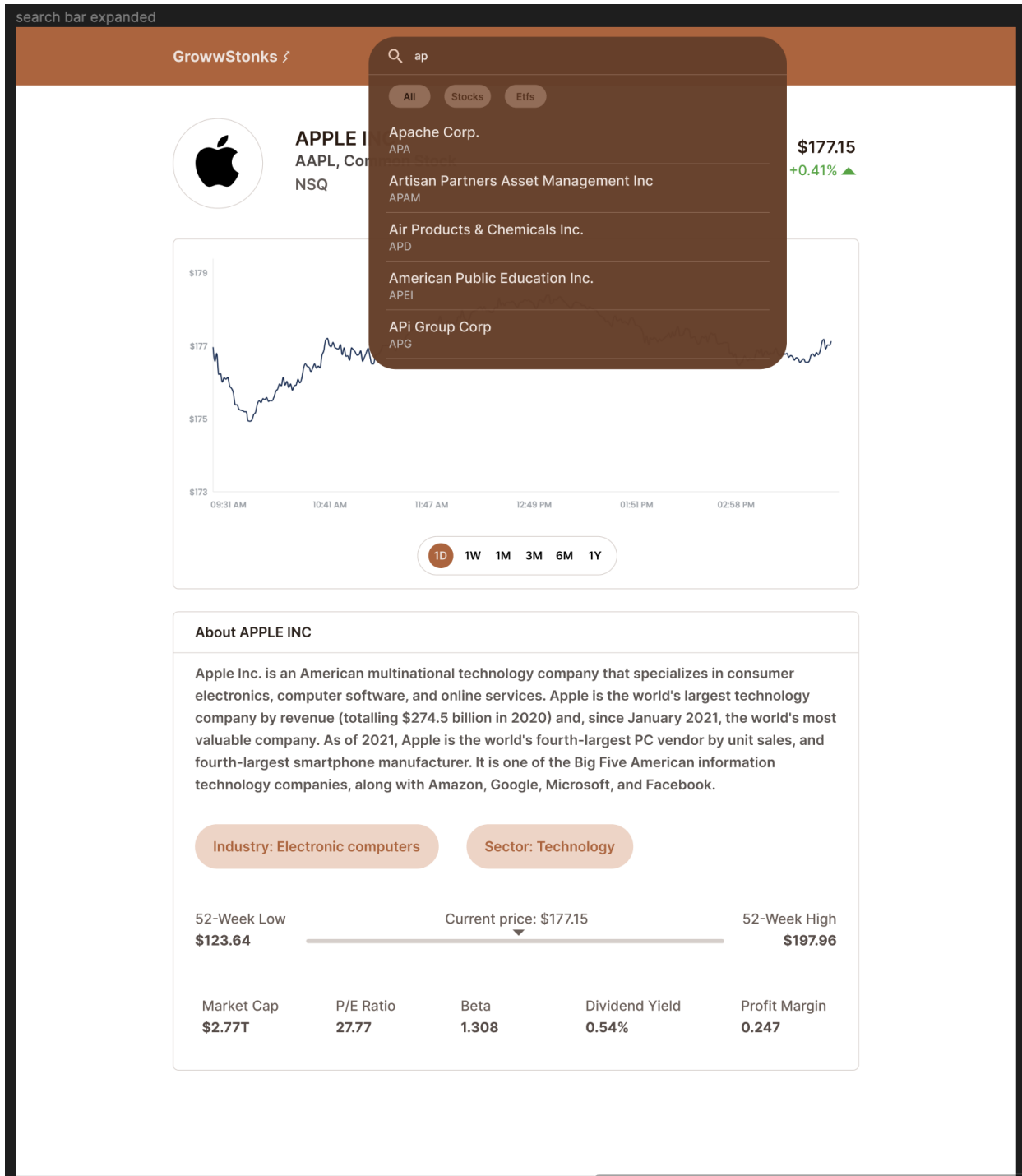
P/E Ratio  
**27.77**

Beta  
**1.308**

Dividend Yield  
**0.54%**

Profit Margin  
**0.247**

search bar expanded



All the Best!!!