Stock App – Final Project

Questions on project:

* Do I need to have lots of validation? A: Not lots, but should have basic validations to ensure program doesn’t break.

Ideas for Blog:

* Challenge with deeply nested serializer
* Challenge with Unix dates
* Adding AMcharts to my project (chartdiv not found error)
  + Difficulty in rendering the chart due to the delay in getting data
  + Had to use ComponentDidUpdate
* Challenges updating copies of state in reducers
* Major challenge doing daily data fetches – had to use async function and reduce function

Todo List:

1. X Add buttons / instructions to home screen
2. Add dates to daily view columns?
3. X Make dates in daily view form so that they must be weekdays?
4. X Make day by day view with columns of dates and a list of stocks to watch with prices for each day to see the trend (and calculate the increase / decrease %. Ability to sort by up or down trend…
   1. X Get chart API to load chart data for last day of fetch (day 3)
   2. X Set up reducer action to get data from database into store
   3. X Get store data to display on daily view table
5. **Add reducer actions and user messages for fetching data**
   1. X Company Data
   2. X Daily View
   3. Others / watchlists?
6. X Make navbar format nicer – round lines around items?
7. X API fetch to get current stock price (use the Stock Price: Quote API)
   1. X Add to company view
   2. X Add to watchlist view?
8. X Be able to add and remove watchlists
9. X Add to watchlist button in company view?
10. X Eliminate duplicate charts in database
11. X Format company data (numbers are raw currently)
12. X Load latest stock info in company view (separate API call)
13. X Add ability to specify date range for chart data
14. X Display company data in company container (already added to store)
15. X Fetch and display stock chart in company container
16. X ADD THUNK TO THE FETCH REQUESTS / ACTIONS!!
17. X Build seed data
    1. **Add full list of tickers to database from Excel Files?**
18. Code basic user interface / front end
    1. About Page
    2. Homepage
    3. X Login form
       1. X For testing automatically log in user1 (andrew)
    4. X Navbar
    5. X Stock pick form
    6. X Download chart data and load to database / view
    7. X Watchlist view / form
       1. X Watchlist listing (list of watchlists)
       2. X Watchlist detail (table view of stocks on watchlist)
    8. X New user form / route (/signup)
    9. X Logout
    10. X Started: Download company data and load to database / view

Summary: It can be difficult to see the actual movement of stocks for custom periods of time. Most stock charts are set up to show price movement over a day, minute, or hour, but not over say a week or month. This app is designed for a user to be able to select any period of time and get the movement of a stock or set of stocks. This is useful to see trends in certain stocks or industries.

Features / User Experience:

* Modern and clean design
* Easy to use (reduce clutter and keep interface minimalistic)
  + Hide menus / options when not needed (drop down menus, etc)
* User Log in & Sign Up
* NavBar that dynamically updates various data and information
* Stock Selection Form
  + Have list of 500+ stocks to choose from?
  + Enter or select a stock code (or search by company name)
  + Select Dates or choose from several date range options
  + Ability to Save a ‘watchlist’ of stocks for quickly review
* Stock Data View
  + Daily View with summary of up to 25 stock data from watchlist with basic price movement
    1. Click to view charts and additional data
  + Candlestick chart with stock data (daily option only at this time)
  + Stock increase / decrease over period including dollar amount and percent
  + Current day stock price and normal statistics
    1. Low for year; high for year; increase YTD, etc
    2. **Need to research how other websites show this data**
  + Future: include comparable industry stock trend for comparison
* View company data including:
  + Summary of company (if possible): Use API: Company Profile2
    1. Country
    2. Exchange
    3. Market cap?
    4. Name
    5. Outstanding shares
    6. Ticker
    7. Weburl
    8. Logo
    9. industry
  + Company statistics (research other sites): Use API: Basic Financials
    1. 3 month avg trading volume
    2. 52 week high
    3. 52 week high date
    4. 52 week low
    5. 52 week low date
  + (future) Last 2 earnings (if possible): Use API: Financials As Reported
* Option to save data to user account? This will persist to database
* Future: Scan list of stocks and return sorted list by largest increase / decrease
  + Be able to look for 3 day trend, week trend, etc…

Pages:

1. Home
2. Login
3. Select\_stock
4. Company
5. Watchlist

Database: See Excel document

Redux Store:

* Questions:
  + Should watchlists be nested under user?
  + Should chart be nested under company?

User: {see fields in table},

Status: {loggedIn} 🡪 need to work on this…

Symbols: [{id, symbol, securityName}],

Watchlists: [{id, name, description, userId, watchlistsCompaniesId}],

Companies: [{see fields in table}],

Chart: {id, companyId, chartData: []} 🡪 just one chart loaded at a time?

Components & Local State:

* App (container): Contains the store and parent to all other containers
* User (container): handles login and other user functionality
  + Login: Login form
  + Select stock form
* Watchlists (container):
* NavBar: Render dynamic navigation bar
* Company (container):
  + Chart: Displays chart
  + Statistics: Displays company statistics