

CMPS 356 – Fall 2022

Web Applications Design and Development

Assignment 01

Composition and State

Instructions

1. The deadline for completing your work is Sunday, October 23, 2022 at 11:59:59pm
2. Push your code to your private repository under `assignments/assignment01`
3. Commit often and use meaningful message summaries and descriptions
4. Complete your work before the deadline; a late push will be ignored
5. Deploy your site using Vercel (<https://vercel.com>) and include a link in `link.txt`
6. Any form of plagiarism will be treated seriously and reported

1. Forex Dashboard

1. Create a Next application under `assignment01`.
 - 1.1. Use React to complete the following tasks.
 - 1.2. Use MUI for your user interface components.
2. Design a component, `Pair`, that displays a currency rate for a forex pair. It takes a currency pair and a numerical value as properties.
3. Use Polygon's API (<https://polygon.io>) to fetch your data. Login using your GitHub account to receive an API key for the free tier
 - 3.1. Your API key should not be hardcoded into your source files. Use an environment variable to store and access it: <https://nextjs.org/docs/basic-features/environment-variables>
4. Your forex dashboard should be accessible through `/dashboard`.
 - 4.1. Display a responsive grid of currency pairs in the dashboard page.
 - 4.2. You should display a list of most popular currency pairs (at least 6).
5. Allow the user to search for currency pairs and add them to the dashboard. A forex pair should not be repeated in the most popular section and user selection.
6. Update the rates automatically every minute.
7. Allow to user to manually update the rates by swiping down to refresh. This should restart your automatic update interval.
8. Save the user selection of forex pairs and reload it between sessions.