

Zendesk Frontend Exercise

Problem

The MRT is Singapore's urban rail system. Your task is to build a React app to help users plan MRT journeys, which may include walking and changing trains at various stops. The app should have the following minimal functionality:

- Users enter their origin and destination autocomplete
- The app displays a list of routes, with the best one first
- The user selects an route to view the detailed steps in that route

Mockups

Mocks #1: MRT Routes Finder (List View)

MRT Routes Finder

From 1 Jln Anak Bukit, Singapore 588996

To 401 Commonwealth Dr, Singapore 1495

Search

Suggested routes

DT • CC • EW

Start by walking 0.5m towards Beauty World MRT

DT • EW

Start by walking 0.5m towards Beauty World

Mocks #2: MRT Routes Finder (Detail View)

MRT Routes Finder

From 1 Jln Anak Bukit, Singapore 588996

To 401 Commonwealth Dr, Singapore 1495

Search

Suggested routes

Start by walking 0.5m towards Beauty World MRT

DT

Beauty World > (After 3 Stops) > Botanic Garden

CC

Botanic Garden > (After 2 Stops) > Bouna Vista

EW

Bouna vista -> Commonwealth

Start by walking 0.5m towards Beauty World MRT

DT • EW

Start by walking 0.5m towards Beauty World

Getting started

You are provided the following:

- A skeleton of this app, with working Google Places autocomplete for origin entry
- A JSON file, `src/routing/mrt.json`, containing information about the MRT stations and (train) lines
- Build and test tooling using `create-react-app`

To begin working on the project, run `npm install` and then **`npm start`**. To run automated tests, run **`npm test`**.

Additional rules

- Do NOT change the signature of the `routing/findRoutes` function, apart from adding additional properties as described in comments in that file.
- Do NOT use an external service (such as Google Maps) or library to calculate routes.
- Feel free to add any additional functionality that you feel is relevant.
- Feel free to add more tests.
- You may add include additional libraries if required. Make sure you add them in `package.json`.

Submission

- You may zip and upload your code to Google Drive. **Please exclude `node_modules` from the archive.**

Evaluation

Your submission will be judged on:

- code quality and architecture
- quality of the route suggestions
- user experience