

## Frontend Developer Test Assignment

In the following, I have mentioned the changes I made in the test assignment. As you mentioned earlier, I tried to complete all three tasks within 3 hours. (However, due to time constraints, I wasn't able to write unit tests).

- 1). I have restructured the project folders based on components and utilities. The main components are put under its feature folder. It's best to arrange it based on features so that it will be helpful when we scale it.
- 2). I have refactored this project based on three principles. Modular, Clean, and Reusability
- 3). Capitalized the filename of all the components, so that it will help us to distinguish the classes and components from other javascript files.
- 4). Extracted the routes from the App.js so that it won't clutter the App.js with too many details. Especially when the routes increased it will be useful to maintain them separately.
- 5). Converted the class based components into pure functional components (since many components didn't use lifecycle methods) and also used hooks for state management and alternate for lifecycle methods.
- 6). Extracted the common functionalities as utility functions from table and chart components (clean and code reusability).
- 7). Split the Table component into three components (clean and modular).
- 8). Extracted the Chart configurations into separate utility functions (clean and code reusability).
- 9). Introduced Error boundary to the top-level component to catch the unexpected errors and render the fallback component.
- 10). Integrated the API call in the top-level component and transferred the data (from the cones.json) to different routes (child components) via props.
- 11). Added new feature to change the key parameters (risk level, years, initial sum, and monthly sum). So that user can change those parameters and check the results.
- 12). Converted the simple menu into a header component (navbar) to make it look nice.
- 13). Added Bootstrap for basic styling. Due to time constraints, put less effort into styling.

I could have completed the unit tests within a couple of hours more. However, the goal is to finish it in 3 hours, so I left that part. Thanks for giving me this opportunity.

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