**Working of Contact App**

First I have created component file to store all the components.

1. **Index.tsx**

I have a index.tsx file to use store to store the data of contacts and give the access of store to entire app and also have the appRouter for single page application.

1. **App.tsx**

Added aal components and added paths to it using react router.

1. **Dashboard.tsx**

I have created a simple dashboard

1. **Sidebar.tsx**

This component is used for render sidebar for every component.This the is the best practice to render for reacct router.

1. **Contact.tsx**

This is the main component that manages the state and interactions between the various subcomponents (ContactList and Modal). It handles adding, editing, viewing, and deleting contacts.

1. **Modal.tsx**

This component provides a form for creating, editing, or viewing a contact. It is rendered as a modal dialog.

1. **ContactList.tsx**

This component displays a list of contacts and provides buttons to edit, view details, or delete each contact**.**

The component renders a list of contact items.

For each contact, it displays the first and last name, and three buttons (View Details, Edit, Delete).

If there are no contacts, it displays a message indicating that no contacts were found.

1. **Store.tsx,contactSlice.tsx**

This 2 files are used to manage storage for contact data

configureStore is used to set up the Redux store with reducers and middleware.

The store is configured with a single reducer for managing contact data, which is wrapped with persistence capabilities using redux-persist

contactSilice is used to create a slice of the Redux store. A slice includes a reducer and actions for managing a part of the Redux state.

This is the working of the contact application

**Map and Chart**

To render the chart and map with the covid data I created one component named as **Graphs.tsx…react-leaflet** is used to display the covid map.

Leaflet is a popular open-source JavaScript library for interactive maps, and react-leaflet wraps this functionality in React components, making it easier to use Leaflet with React.

This component have imported 2 components one is to render the chart and another one is for Map.

* **MapComponent.tsx**

is a React functional component that displays a map using Leaflet and overlays markers for COVID-19 data of various countries. It utilizes React Query for fetching data from an external API and manages the data's loading and error states.

<https://disease.sh/v3/covid-19/countries>

This api is used to fetch the countires from api

* **LineChartComponent.tsx**

The LineChartComponent is a React component that displays a line chart of COVID-19 case fluctuations over time. It uses the recharts library for chart rendering and react-query for data fetching.

<https://disease.sh/v3/covid-19/historical/all?lastdays=all>

This api is used to fetch the data for cases over days

This how the Map and chart component works…