COVID-19 Stats Tracker

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May 23, 2021

Version 0.0.1

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INTRODUCTION

PURPOSE

To provide users with a simple interface where they can see the latest COVID-19 statistics.

PROJECT SCOPE

A simple web app that gives information about Covid-19 from around the world. You can use the map and find the specific region you want and click in, the website gives information about cumulative cases to date, daily positive cases received, cumulative deaths to date, deaths reported today, cumulative tests to date, tests reported today, cases currently hospitalized and cases currently in ICU.

DESCRIPTION

Technology Stack

Front-End

1- ReactJs
2- CSS
3- Material UI
4- ChartJs
5- LeafLet

Back-End

1- Disease.sh API

FEATURES

1- Show COVID-19 stats on the home/front/landing page and map with a visual representation of the spread of the virus globally.
2- A user can select any country and view covid stats from that country.
3- A user can switch the visual representation on the map to filter confirmed cases(red), recoveries(green), and fatal cases(purple).

Configuration (localhost) - Abstract

1- Download Zip Folder or Clone Repository
2- Open Project Folder in Terminal and Run the command “npm install”. It will install all the necessary packages listed in package.json.
3- Run “npm start” to run the application. It should open the site at localhost:3000 in the default browser.

References for React Scripts

https://create-react-app.dev/docs/available-scripts

APPENDICES

APPENDIX A: Front-End

The app's entry point is the App.js folder. Since React has a component-based structure, all elements of the page are created in a different file with a .js extension and are imported into the App.js file when they are required.

The landing page consists of a map, built with the Leaflet npm package and OpenStreetMap API (https://www.openstreetmap.org/) which is an open-source maps service hence no API keys are needed. On the right side in the desktop view is a line graph indicating the trend of new cases globally in the last 90 days. The line graph was built using chartJs and the data in the line graph is fetched from the diseases.sh API (https://api.caw.sh/docs/).

Below the Line graph, there are infoboxes cards where we used Material Ui to create. These cards also act as filter buttons between various case types.

Most of the App.js styling is done in the App.css file although some of the imported components like the infoBox component have their individual styling in the infoBox.css file.

APPENDIX B: Back-End

The back-end of our react app is the disease.sh API That serves all the statistics in JSON format. These statistics are from different sources and most are updated after every 24 hours and others updated after every 10 minutes. No API keys are required to make the connection to this API.