Review of Covid Tracker Website using react js

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Abstract **- Analysing the data of a deadly pandemic that has created a mess in this wonderful world and caused a lot of deaths is a need of this hour such that we can easily take preventive measures and hold this pandemic growth and eradicate it with certain measures and proper planning and a study is needed to analyse whether any inter-mediate hosts have facilitated the transmission of the virus to humans or vice versa and this could only be done if precise data is analysed. The paper revolves around a project created with a bunch of features of React JS from exciting frontend components with Material UI to writing CSS, JSX and making API calls to collect worldwide data related to Corona virus. The major highlights of the project entitled in this paper are no page reloads, Responsiveness, body- parsing, API calls for data collection, JSX (HTML inside JS), sorting algorithms, dynamic data representation, REDUX, data representation in dynamic graphs/pie charts. The web software entitled in this paper is a complete package of features of React JS integrated with some other frontend technologies like CSS and material UI going through which any user can analyse the data related to corona virus geographically as well as graphically.**

Index Terms **- Dynamic data representation, Responsiveness, API calls, JSX, Sorting algorithms, NPM packages, Page reloads, JSON, Library, components.**

I. INTRODUCTION

"COVID19 TRACKER" is a useful application with a bunch of exciting features that it offers to the users from no page reloads to all corona virus related data under a single web page. It covers all scenarios to achieve the requirements of any user searching for worldwide or country wise details regarding corona virus. This application is developed for serving its users to the fullest of it's potential by providing them a platform where they can get the data and information about corona virus not only worldwide but also country wise and in graphical as well as geographical display. Though the application is based more on the frontend development, but dynamic data is also given equal preference. The data is collected by asynchronous API calls to disease.sh that provides dynamic data depending on the endpoint used during the call. In simple words disease.sh acts as a server to which we make GET request to provided endpoint and according to endpoint it gives JSON data in response.

II. LITERATURE REVIEW

a. *Triantafyllidisl, A, Kondylakis H, Votis K, Tzovaras D, Maglaveras N, Rahimi K. Int J Med Inform. 2019 Dec;132:103984.:-* In this paper regarding the health benefits of mHealth interventions for patients living with chronic diseases. Further rigorous studies are needed to assess the outcomes of personalized mHealth interventions toward the optimal management of chronic diseases.

b. *Kouroubali A, Koumakis L, Kondylakis H, Katehakis DG:-* An integrated approach towards developing quality mobile health apps for cancer. health offer unique opportunities to reduce cost, increase efficiencies, and improve quality and access to healthcare. However, the full impact of healt is just beginning to be felt by the medical community and requires further examination to understand the full range of benefits it contributes to medical staff and patients.

c. *Muhammad Nazrul Islam; Nafiz Imtiaz Khan; Ayon Roy; MD. Mahbubar Rahman; Saddam Hossain Mukta; A. K. M. Najmul Islam:*-Defined that there are four major online marketing domains: (a)business-to-consumer, (b)business-to-business, (c)Consumer-to-Consumer. are online commerce, web commerce, e-retail, e-tail and e-comm. But e-tail refers to any transactional processes around retail.

III.PROPOSED METHODOLOGY

During the development phase of this software certain steps were followed to represent the corona virus related data in the best way possible. Such that precise data is served to a user in different formats including graphical and geographical representation.
Steps followed while development of this project is as follows:

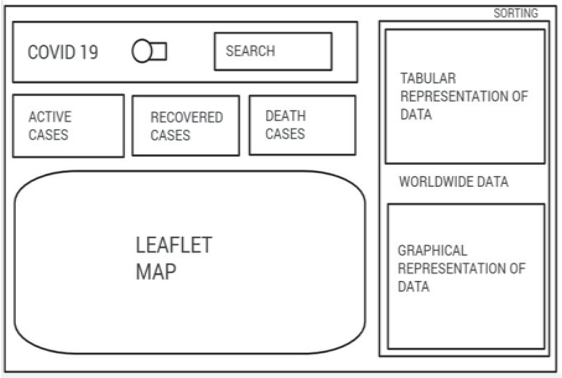
1. Basic structure of the application was created before implementation of any code. The structure was designed in such a way the whole UI looks as a single web page and there are no too many instructions for the user to reach to a particular data.
2. Coding phase of the website was initiate and was planned in such a way that when a particular variable changes the component in the DOM associated to it is a automatically changed .For Example: Map automatically changes as soon as search.
3. The coding was performed in a hierarchical manner such that parent component was implanted first after that implementation of child components was performed. For Example: Parent Component: App Child Component: MAP, Search
4. As the app was coded in components thus making code reusable.
5. API call were made to disease.sh in order to get data. GET requests were made to endpoints provided by disease.sh.
6. All data fetching calls were made under useEffect() hook provided by React JS that takes two parameters one as an async function describing what to do and second argument as when to run that function.
7. After collection of the data the data was transformed in the required formats as required format for graphs is X, Y coordinates.

IV. UNITS

- Hardware/Software requirement:-
- Operating System -Windows XP/Windows 7, 8, 10
- Languages - React Js, HTML, CSS
- Ide - Visual Studio
- Run - Chrome Browser

V. HELPFUL HINTS

A. Figures and Tables



B. References

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VI. CONCLUSION

These will be helpful in understanding and developing new algorithms for finding doctors for users according to their area. This is a booming research topic which is still going on for surveillance of large crowds in real time applications. From this application we conclude that how React JS and some basic concepts of frontend development can lead to such an exciting web application with a bunch of features. Though the application is a pretty basic for now but it has a great scope for further implementation of some advanced topics and some more technologies and for nowthe application is serving its aim to the fullest for which it is developed.

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