PROJECT
(2020-2021)

COVID-19 TRACKER
(Web App)

SYNOPSIS

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ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the synopsis of the B.Tech Mini Project **(Covid-19 Tracker)** undertaken during B.Tech IIIrd Year. This project in itself is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals.

We owe special debt of gratitude to **Mr. Pankaj Kapoor,** Assistant Professor Department of CEA, for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constant support and guidance to our work. His sincerity, thoroughness and perseverance is been a constant source of inspiration for us. We believe that he will shower us with all his extensively experienced ideas and insightful comments at different stages of the project & also taught us about the latest industry-oriented technologies.

We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and co-operation.

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Covid-19 Tracker

We are going to make a **Covid-19 Tracker System** that helps in a very effective manner for describing the present scenario of the world. It will track the daily updates including number of Confirmed Cases, number of Deaths and number of Recovered Cases over all the world.

The system remains under proper monitoring with the data of storage and its type.

It's a Real Time System that gets updated day by day.

It uses Visualizations to show the changing behavior of the Covid-19 over the period.

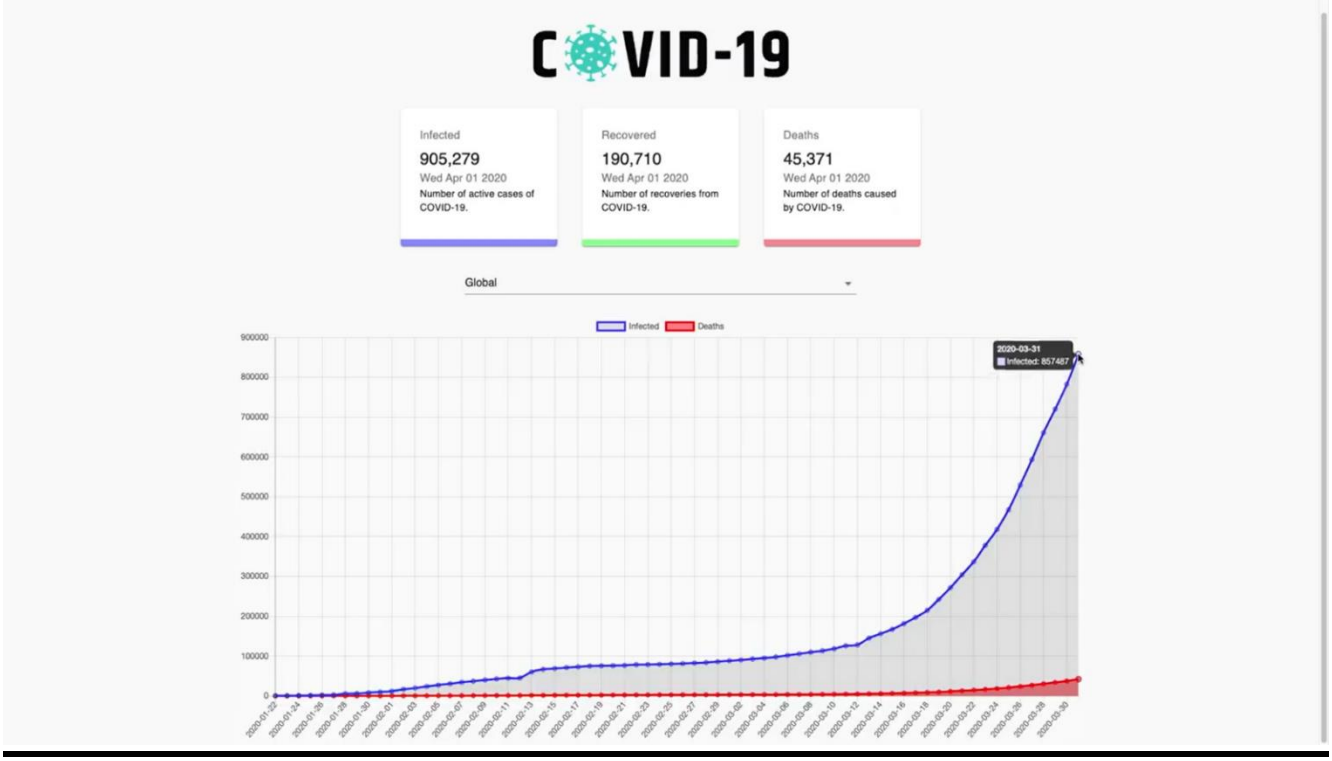
Pie Charts and Bar charts for showing the overall division over all the world.

User needs to Register for getting daily updates notifications.

PROJECT ANALYSIS:

Software Design

Expected Design:



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COVID-19 World Statistics

Affected World Population

0.28 %

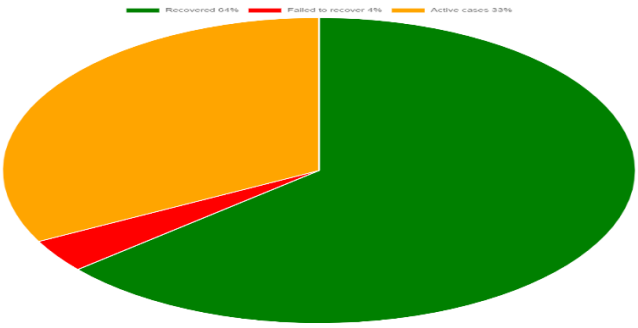
This is the part of confirmed infection cases against the total 7.8 billion of the world population.

Affected 2.84 per 1000 people

Died 0.10 per 1000 people

Recovery Pie

The whole pie reflects the total number of confirmed cases of people infected by coronavirus in the whole world.



Raw Numbers on August 18, 2020

22,137,689 confirmed +255,126

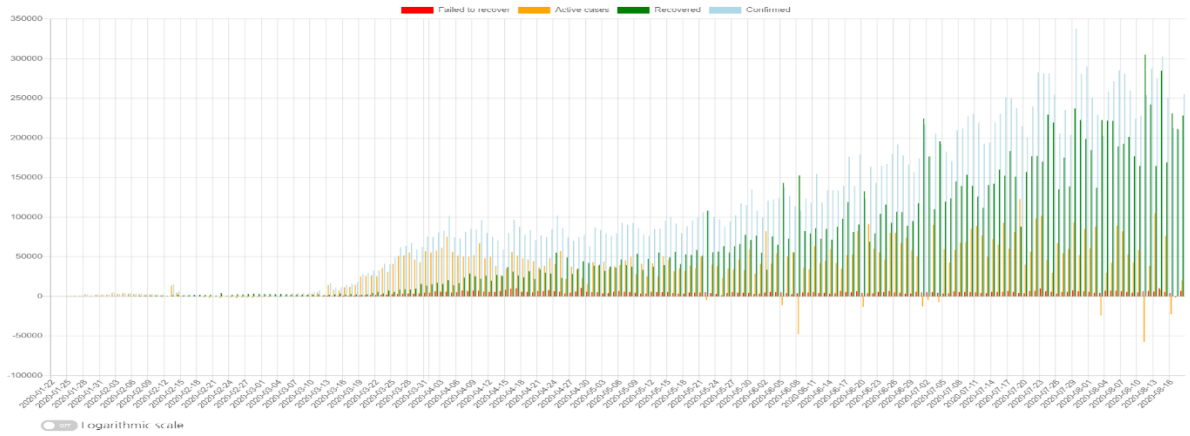
14,116,838 recovered +228,205

780,879 fatal +6,877

7,239,972 active +20,044

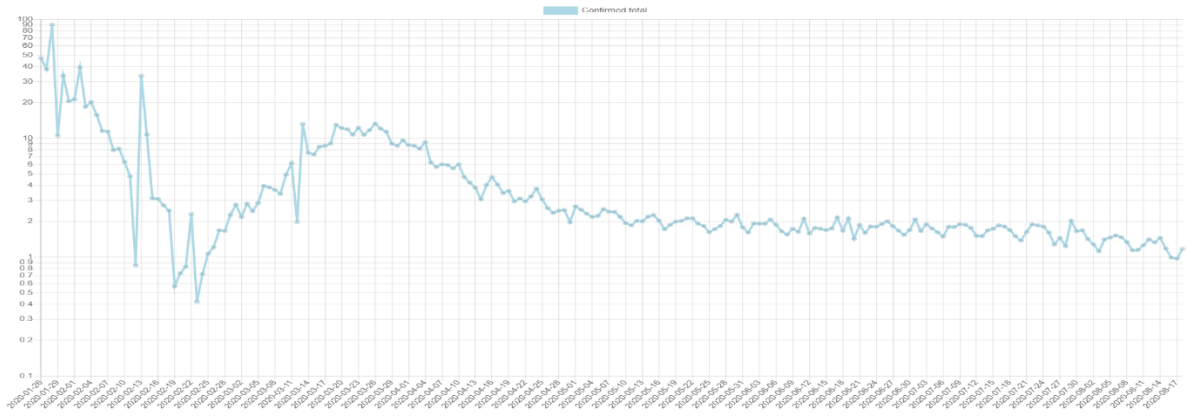
New Confirmed Cases

This graph shows the number of new cases by day. The lightblue bars are the number of the new total confirmed cases appeared that day.



Daily Speed

This graph shows the speed of growth (in %) over time. The only parameter here is the number of confirmed cases.



Objective

To Build a Covid-19 Tracker System that take record of every number of confirmed cases, number of deaths and number of Recovered cases overall the world along with the voice Assistant support, and provides user an interface to get all data and facts regarding covid-19, including graphs, pie charts, bar chats and time series for showing the changing behavior of covid-19 over the period.

Domain and Requirement Analysis

System Analysis

System analysis is a process of collecting and interpreting facts, identifying the problems, and decomposition of the system into its components.
It is a process of studying a system in order to define its goals or purposes and to discover operations and procedures for accomplishing them most efficiently.

Role of System Analyst

The system analyst is a person who is thoroughly aware of the system and guides the system development project by giving proper directions. He is an expert having technical and interpersonal skills to carry out development tasks required at each phase.

Main Roles of System Analyst:

- Defining and understanding the requirement of user through various fact finding techniques.
- Prioritizing the requirements by obtaining user consensus.
- Maintains analysis and evaluation to arrive at appropriate system which is more user friendly.
- Draw certain specifications which are easily understood by users and programmer in precise and detailed form.
- Implement the logical design of system which must be modular.

HARDWARE REQUIREMENT

- 2 GB RAM
- 20 GB OF HARDDISK
- Processor i3 (7^{th} Gen)
- 1024 x 768 Display

SOFTWARE REQUIREMENT

- SYSTEM SOFTWARE
  - **Operating System (Windows 10, Linux)**
- **APPLICATION SOFTWARE**
  - **Tools:** Github, PyCharm, Visual Studio Code
  - **Front-End:**
    - HTML
    - CSS
    - JavaScript
    - Bootstrap
  - **Back-End:**
    - Flask
  - **Programming:** Python

Data Collection

For Data Collection We will be using an API:
https://covid19.mathdro.id/api/

For Voice Assistant:
https://www.worldometers.info/coronavirus/

References

- **www.javatpoint.com**
- **www.w3school.com**
- **www.tutorialspoint.com**
- **www.youtube.com**