St. Paul's Senior Secondary School, Jodhpur

Session: 2021-2022

Informatics Practices

Project

Covid-19 Management

Name – Divyansh Bhati

Class – XII Iris

Roll Number - 03

Submitted To:

Mrs. Jyotsna Sharma

Content

- Certificate

- Acknowledgement

- Introduction To Project

- Module Description

- Drawbacks and Advantages

- Modules and Description

- System Requirements

- Software Requirements

- Project Structure

- Bibliography

Certificate

This is to certify that this project work is submitted by Divyansh Bhati of Class XII-"Iris" of **St. Paul School, Jhalamand, Jodhpur.** He has worked on the project "Covid-19 Data Management" under my supervision during academic year 2021-2022. This is a record of student's own work carried under my guidance and is here by approved for submission.

Mrs. Jyotsna Sharma

Acknowledgement

It is my foremost duty to express my deep regards and gratitude to my Informatics Practices teacher Jyotsna Sharma Mam, under whose guidance and supervision I am able to undertake this project. She has been my primary source of inspiration who motivated, guided and encouraged me at different stages to make this project.

I am also thankful to my friends and family to provide me immense support.

Introduction to Project

Covid-19 Data Management is a software system where the management of entire world's Covid-19 data is Computerized. The Covid-19 Data Management is designed using Python.

Module Description

In this project the details are maintained like Country Code, Country Name, New Deaths, Cumulative Deaths, New Cases, Cumulative Deaths, etc.

The reports can be viewed completely by any user. For General Knowledge it will be more useful. This Proposed System will be interactive, fast and user-friendly for the end users. Using the **Covid-19 Data Management,** following activities can be performed:

- Country Code,
- Country,
- New Cases,
- Cumulative Cases,

- New Deaths, • Cumulative Deaths,
- Date Reported.
  Mission of this Project The mission is to facilitate easy management of Covid-19 with capabilities of New

Cases on particular day, New Deaths on the particular day, it refreshes data from World Health Organization's official Covid-19 website. This software lets user knows what the current report of world in response of Covid-19. This software helps enduser in retrieving Covid-19 data in better way with less paperwork and manpower.

Drawbacks and Advantages

Drawbacks of the Existing System

- Data is so big and complicated that it requires core knowledge of this system file in case of any error created accidently in any file.

- Non-Secure.

- Third-party data.

- No method to trace details.

- Searching is more time consuming.

- Data refreshes when WHO refreshes it.

Advantages of proposed system

- No permissions required.

- Easy way of analysing.

- Save your time.

- Elimination of paperwork.

- Fast and reliable.

Modules and Description

Modules

- Date reported,
- Country code,
- Country Name,
- New Deaths,
- Cumulative Deaths,
- New Cases,
- Cumulative Deaths, and
- WHO region.

Module Description

1. **Date Reported** ❼ This module contains data of date when found any new case of Covid-19. It refreshes and adds new date column when the project file is refreshed. It only stores the data given by a specific country to WHO.

2. **Country Code** ❼ This module contains data of Country in a code

like it store India as IN, China as CN, etc. It only stores the data given by a specific country to WHO.

3. **Country Name** ❼ This module contains data of Country name like India, Pakistan, China, etc. It only stores the data given by a specific country to WHO.

4. **New Deaths** ❼ This module contains data of New Deaths happened in a specific country with date reported. It only stores the data given by a specific country to WHO.

5. **Cumulative Deaths** ❼ This module contains data of the proportion of a group that dies over a specified time interval. It is the incidence proportion of deaths. It only stores the data given by a specific country to WHO.

6. **New Cases** ❼ This module contains data of New Cases happened in a specific country with date reported. It only stores the data given by a specific country to WHO.

7. **Cumulative Cases** ❼ This module contains data increasing by successive addition of cases of Covid-19. It only stores the data given by a specific country to WHO.

8. **WHO Region** ❼ This module contains the regions of world described by WHO. Example African Region is mentioned as AFR, European Region is mentioned as EUR, etc. Only country listed in WHO will be shown.

Software Requirement Specification

Python and device connected through internet.

Hardware Specification:- Processor: Intel i3 10th Generation(i3-1005G1 CPU @ 1.20GHz)

Clock Speed: 1.19 GHz

Ram: 16 GB

Virtual Ram: 32 GB

Solid State Drive Capacity: 256 GB

Hard Disk Capacity: 1TB

Keyboard: 99 Keys

Graphic Card 1: Intel UHD Graphics

Graphic Card 2: NVIDIA GeForce MX130

Mouse: Track Pad

Software Specification:-

Front-end: Python

Back-end: Python

Operating System: Windows 10 Home

Project Structure:-

1. Date Reported:-

```
In [38]: DataF["Date_reported"]

Out[38]: 0          2020-01-03
         1          2020-01-04
         2          2020-01-05
         3          2020-01-06
         4          2020-01-07
                       ...
         152149     2021-10-01
         152150     2021-10-02
         152151     2021-10-03
         152152     2021-10-04
         152153     2021-10-05
         Name: Date_reported, Length: 152154, dtype: object
```

2. Country Code:-

```
In [39]: DataF["Country_code"]

Out[39]: 0          AF
         1          AF
         2          AF
         3          AF
         4          AF
                    ..
         152149     ZW
         152150     ZW
         152151     ZW
         152152     ZW
         152153     ZW
         Name: Country_code, Length: 152154, dtype: object
```

3. Country Name:-

```
In [41]: DataF["Country"]

Out[41]: 0          Afghanistan
         1          Afghanistan
         2          Afghanistan
         3          Afghanistan
         4          Afghanistan
                       ...
         152149     Zimbabwe
         152150     Zimbabwe
         152151     Zimbabwe
         152152     Zimbabwe
         152153     Zimbabwe
         Name: Country, Length: 152154, dtype: object
```

4. WHO Region:-

```
In [42]: DataF["WHO_region"]

Out[42]: 0          EMRO
         1          EMRO
         2          EMRO
         3          EMRO
         4          EMRO
                    ...
         152149     AFRO
         152150     AFRO
         152151     AFRO
         152152     AFRO
         152153     AFRO
         Name: WHO_region, Length: 152154, dtype: object
```

5. New Cases:-

```
In [43]: DataF["New_cases"]

Out[43]: 0          0
         1          0
         2          0
         3          0
         4          0
                  ...
         152149    335
         152150    208
         152151     66
         152152     35
         152153     76
         Name: New_cases, Length: 152154, dtype: int64
```

6. Cumulative Cases:-

```
In [44]: DataF["Cumulative_cases"]

Out[44]: 0            0
         1            0
         2            0
         3            0
         4            0
                    ...
         152149    130820
         152150    131028
         152151    131094
         152152    131129
         152153    131205
         Name: Cumulative_cases, Length: 152154, dtype: int64
```

7. New Deaths:-

```
In [45]: DataF["New_deaths"]

Out[45]: 0          0
         1          0
         2          0
         3          0
         4          0
                  ...
         152149     7
         152150     1
         152151     1
         152152     2
         152153     0
         Name: New_deaths, Length: 152154, dtype: int64
```

8. Cumulative Deaths:-

```
In [46]: DataF["Cumulative_deaths"]

Out[46]: 0            0
         1            0
         2            0
         3            0
         4            0
                    ...
         152149     4623
         152150     4624
         152151     4625
         152152     4627
         152153     4627
         Name: Cumulative_deaths, Length: 152154, dtype: int64
```

Overview of all column entries:-

```
In [6]: DataF
```

Out[6]:

	Date_reported	Country_code	Country	WHO_region	New_cases	Cumulative_cases	New_deaths	Cumulative_deaths
0	2020-01-03	AF	Afghanistan	EMRO	0	0	0	0
1	2020-01-04	AF	Afghanistan	EMRO	0	0	0	0
2	2020-01-05	AF	Afghanistan	EMRO	0	0	0	0
3	2020-01-06	AF	Afghanistan	EMRO	0	0	0	0
4	2020-01-07	AF	Afghanistan	EMRO	0	0	0	0
...	...	...	...	...	...	...	...	...
152149	2021-10-01	ZW	Zimbabwe	AFRO	335	130820	7	4623
152150	2021-10-02	ZW	Zimbabwe	AFRO	208	131028	1	4624
152151	2021-10-03	ZW	Zimbabwe	AFRO	66	131094	1	4625
152152	2021-10-04	ZW	Zimbabwe	AFRO	35	131129	2	4627
152153	2021-10-05	ZW	Zimbabwe	AFRO	76	131205	0	4627

152154 rows × 8 columns

See that index number 152153 gives date reported of the last date from today i.e. 10/06/2021, when WHO updated data, this project is and can be updated on the daily basis to see new data entries.

Bibliography

A list of all the sources I have used:-

1 Class 12th IP Book

2 Python's Official Webiste