# Synopsis

# On

# Covid-19 Data Management

Submitted to **St. Paul’s School Jhalamand Jodhpur**

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# Introduction of 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.

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 end-user in retrieving Covid-19 data in better way with less paperwork and manpower.

**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**

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

**Module Description**

1. **Date Reported** → 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** → 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** → 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** → 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** → 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** → 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** → 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** → 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*

**Hardware Specification:-**

Processor: Intel i3 10th Generation

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.

Thanks