COVID-19 Analyzer

**Summary:**

COVID-19 Analyzer is a console application that shows the number of cases of victims of COVID-19. The purpose of application is to represent data in textual and graphical format for more understanding of the situation in either one country or comparison of two countries.

**Purpose:**

COVID-19 has created a wave of terror around the globe and everyone is worried when will all of this will end. This terror urges people to find out what’s the situation of victims on the planet. They want to know how the number of cases is increasing or decreasing in their countries. This project is the solution to all their problems and answer to their questions. This application displays the complete required information in the form of text or graphs. People can see the number of confirmed cases, deaths and recovered victims of any country in the world. They can also compare the stats of two countries and understand the situation in detail with the help of graphical data.

**Description:**

The project is developed in Python Programming Language. The data being used is of two kinds. A .json file containing the names of all the countries in the world with their slugs. The purpose of using this file is to increase the efficiency of the program. The file downloaded from official COVID-19 API. The functionality provided by this file in the program is that it provides the slugs of the countries because slugs are the key to find the data of relative country. Another form of data being used is directly from the API of the country. I’m explaining the complete process later but for now it is enough to know that a data file is downloaded and attached with the project and other data is directly fetched at runtime from the API itself.

Main Menu:

When the test.py file executed the program shows a Main Menu with four selection options (1,2,3,4). The user is asked to select one of the options and of course pressing enter key on the keyboard.

**Option 1:** This option provides the user with a list of names of the countries. The purpose of providing this option is some users don’t know the exact name of the country they are searching or maybe they are using some abbreviation or doing some spelling mistake in the name. The list gives the exact proper name of country that the program requires as an input. If the user is entering the wrong input, the program will not display any data so this option aids the user.

**Option 2:** This option takes the user to a new menu where user can compare the data of two countries. It takes the required data from the user and displays data in the console as well as a bar graph. The user is required to enter names of both the countries he wants to compare data of and name of statistic he wants to see. He can also enter starting and ending dates. Here if the user is not willing to enter the starting and ending date, data will be shown from 2020-01-22 to the day he is running program.

**Option 3:** Some users don’t want to compare the data of two countries and want to see the details of victims of only one country so they can choose this option which will take them to a new menu to get some more details. This option asks the user to enter name of country he is willing to search for, statistic, starting and ending dates and either he wants to display data on a graph or not

**Option 4:** There user may not be interested in any of the above options and want to exit the program. He can choose this option and program will terminate.