Class Project Part II: Report

Patriots

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November 28, 2022

Problem Specification

Our team decided to navigate the issue of access to information about the covid-19 status of countries. We figured that research that had to be done in this area tends to be extensive and sometimes information can be difficult to find.

Solution Description

In light of the aforementioned problem, we decided to create an application that makes accessing information about COVID-19 very easy and efficient. The user would be able to carry out the following tasks on our application:

- Get data on the covid status of their country
- Get the covid status of a country they wish

Developing the code

Language - The main language used across this project was python 3.

Gathering the data - We had to collect our information from an online source. In order to do this, we utilised the requests library. This library is an open-source HTTP library that heps make HTTP requests simpler and more human-friendly. We first set a variable `response` to **`requests.get()`** function to extract the data from Heroku(a container-based cloud Platform as a Service).

Interpreting the data - We used **`response.json()`** to get the data extracted into lists and dictionaries that we could use to display the data on the interface. We then defined `class` **`CovidData:`** which takes `self` and `country` in the **`def __init__`** and creates instances of the relevant data. All this code was stored in a file under the name **`covid_data.py.`**

Interface - For our interface, we decided to use a library called **`CustomTkinter`**, developed by GitHub user **TomSchimansky**. The library is built upon the original **`Tkinter`** library, and gives it a modernised look, as well as adding a number of options for UI-design in python. The code for the interface was created in a separate file also. In that file we coded what would be displayed based on which input. Using the **`CovidData`** class from the previous file, we made the relevant data available to the application.

Testing the code – to test, we simply launched the code and inputted as many countries as we could to verify that the code worked. Here is a video of the demonstration:

Link to the test files

https://drive.google.com/drive/folders/1MUrLsp24j0vrszXbFjmVxVdTJFLopn1t?usp=sharing