**CMSC 6950: Computer Based Research Tools and Applications**

**Final Project**

**About**

The first three plots illustrate the total number of Covid-19 cases in each province, total tests in each province, and the number of cases per day in different provinces of Canada where cases have been more than 20.

The repository also contains other programs – which return doubling rate for total new cases, total cases, total tested, and total deaths in each province. The purpose of doing the doubling rate is to automate the calculation of the number of days it may take for each feature to double for a particular date.

The free choice task(animate.py) plots the total confirmed cases over a period of time in an animated way for a particular Province, when its name is given as a command-line argument.

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**Run and compile details**

All plots and predictions were made using the CSV file available on the government website of Canada. No other parameters were taken into account.

Download all files from the respiratory into a directory.

**Graph Plotting and animations**

The first three plots and animation part can be run in Jupyter notebook. Install all the necessary libraries which exist in the library list. It can be done by pip install (library name).

For running animation plot:

Download the animate.py file and in the command line type:

python3 animate.py <province\_name>

**Doubling rate**

The repository contains a file(Project.ipynb) for plotting and predicting the doubling rate.

To run this part, use the command arguments (Province name and Date).

**Contributors**

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