

CAPSTONE PROJECT: BATTLE OF THE NEIGHBORHOODS CORONA MAP

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OVERVIEW

1. PURPOSE

This document provides the details of my final peer reviewed assignment for the IBM Data Science Professional Certificate program – Coursera Capstone.

2. INTRODUCTION

Coronavirus or COVID-19 needs no introduction. It has already been declared as a pandemic by WHO and in past couple of weeks it's impact has been deleterious from both health perspective and an economic one. Plenty has been written about it, especially statistical reports on its exponential growth and the importance of "flattening the curve."

Indian government has restricted people to move out of the house to reduce the transmission. People may go out of the house only to buy essentials such as medicine and groceries. So, people face lot of trouble due to the lockdown.

The intention on this project is to collect and provide a data driven approach about the corona spread and to find the location of pharmacy which is opened in the nearby location. So, people may avoid the red zone and buy essential medicine without worries.

I decided write a Python Script that pulls the latest Stagewise data of COVID-19 cases from the official website of Ministry of Health and Family Welfare, Government of India and turn it into insightful visualizations using popular Python packages like GeoPandas, Seaborn and Matplotlib and use foursquare api to get pharmacy shop details .

The python script will provide the following use case scenario:

1. State wise count of corona confirmed cases
2. Classify the states by different color according to the count
3. To know which medical shop (pharmacy) is opened in the particular city .
4. National wise count of recovered or died due to corona

3. DATA ACQUISITION

This demonstration will make use of the following data sources:

1. For Corona State Wise Count : Its Done By Using Web Scrapping On Official Indian GOVERNMENT CORONA SITE : <https://www.mohfw.gov.in/>
2. India Map Data : Downloaded From : https://map.igismap.com/share-map/export-layer/Indian_States/06409663226af2f3114485aa4e0a23b4
3. Pharmacy details data using Top Venue Recommendations from FourSquare API
The following information are retrieved on the first query:

Venue ID
Venue Name
Coordinates : state and city