



Daffodil *International* **University**

Report on

Data visualization project on Covid-19 by google Colab

Course Title: Software Project V

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Group Name: Tesla

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Section : L

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Abstract: This project was intended for data visualization of the Covid-19 case of US by data modeler tool google colab. The dataset was taken from the data world and then connected to google colab to create few charts by us. Graphs result shows that death rate per 100000 of noncore states is higher than any other types of states by Urban-rural category.

Introduction: This data is paired with population figures and county rural/urban designations and has calculated caseload and death rates per 100,000 people. The dataset is consists of 14 columns. By visualization and make different types of chart, it became easier to understand which type of state was more affected by Covid-19 and where the death rate is higher. The outbreak of COVID-19 was first identified in Wuhan, China in December 2019, which then spread to the rest of the world. As of today coronavirus has spread countries and territories affecting over a million people.

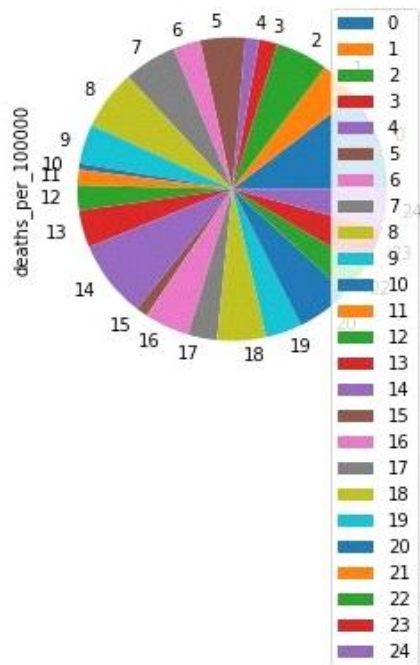
Methodology: As the topic is still emerging and there is no academic literature available in this area, we followed an online content review approach to attain our research objectives. We note that the online content review approach is widely accepted in research, and popularly known as digital ethnography, online ethnography, and ethnography. We used the data modeler tool google colab, to visualization data. google colab is a business analytics service by Microsoft. It aims to provide interactive visualizations and business intelligence

capabilities with an interface simple enough for end-users to create their own reports and dashboards. The CSV file was used by us to visualize data through different types of charts. After importing the data to google colab we preprocessing the whole data and delete the unnecessary data such column. Then make different types of graphs through those data.

Results and Discussion:

```
In [191]: csv_shuffled["deaths_per_100000"] = csv_shuffled["deaths_per_100000"].astype(int)
csv_shuffled.plot(x="county_name_long", y="deaths_per_100000", kind="pie")
```

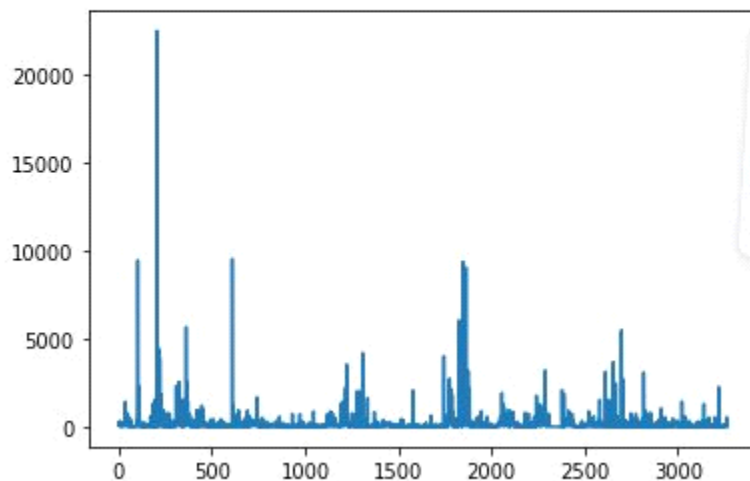
```
Out[191]: <matplotlib.axes._subplots.AxesSubplot at 0x7fa12c39b4d0>
```



The charts show the death count per 100000.

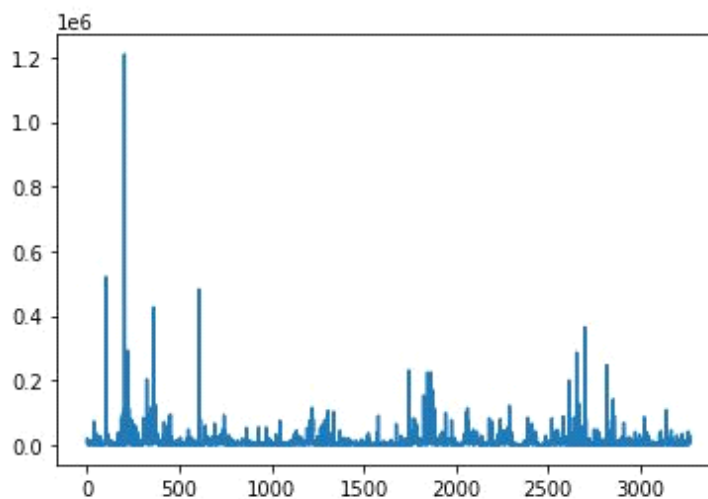
```
In [146]: #*****  
csv["deaths"].plot() # single line graphs
```

```
Out[146]: <matplotlib.axes._subplots.AxesSubplot at 0x7fa1333885d0>
```



```
In [147]: csv["confirmed"].plot() # single line graphs
```

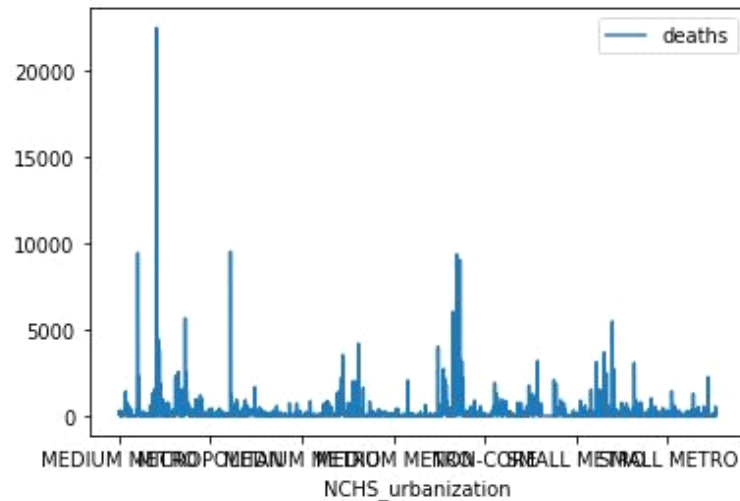
```
Out[147]: <matplotlib.axes._subplots.AxesSubplot at 0x7fa13336ded0>
```



The first chart shows the rate of death and the second chart shows the confirmed case per 100000.

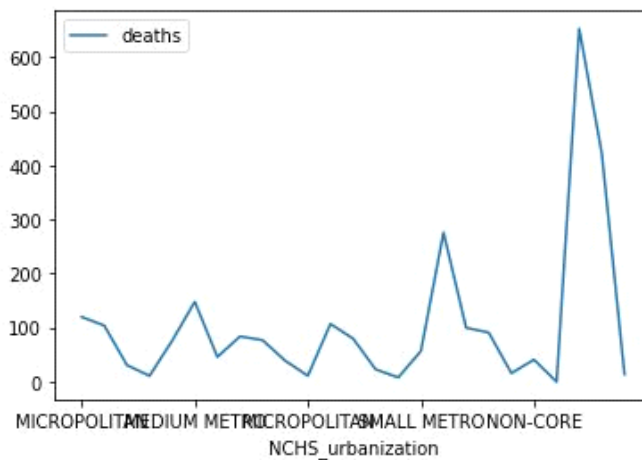
```
csv["deaths"] = csv["deaths"].astype(int)
csv.plot(x = "NCHS_urbanization", y = "deaths", kind= "line")
```

```
Out[138]: <matplotlib.axes._subplots.AxesSubplot at 0x7fa13369c190>
```



```
csv_shuffled.plot(x = "NCHS_urbanization", y = "deaths", kind= "line")
```

Out[148]: <matplotlib.axes._subplots.AxesSubplot at 0x7fa1332db8d0>



The chart shows death rate in NCHS_urbanization per 100000.

Conclusion: In this paper, we have systematically reviewed the digital intervention initiatives that have been taken across the globe as well as by the US for the containment of the pandemic spread of COVID-19. Based on our comparative analysis the death rate per 100000 of noncore states is higher than any other types of states by the Urban-rural category. And also affected the noncore state most.

Github link----[***https://github.com/shoeb11/SPV***](https://github.com/shoeb11/SPV)