COVID_19

IMPACTS ON THE WORLD AND NORTH AMERICA

Group: Heather Dietrich, Fatima Mukaddam, Akbar Zeeshan Khan, Chenghao Han

MOTIVATION & SUMMARY

➔ OBJECTIVE
- Visualize the impact of COVID 19 on the world with an emphasis on North America

➔ QUESTIONS
- How has COVID-19 impacted the provinces in Canada (cases, deaths, and vaccine admin)?
- How has COVID 19 impacted countries of the world (cases, deaths)?
- Does COVID-19 impac technology stocks? Is there a relationship between COVID-19 news events and the performance of technology stocks ?

➔ SUMMARY
- We were able to create visualizations for all our questions to our satisfaction
- Canadian COVID cases focus within Ontario and Quebec and globally, the US has the most significant number of cases.
- The technology industry has been positively impact by COVID-19

DATA SOURCES

DATA CLEANUP AND EXPLORATION

- Data was extracted using SQLAlchemy from ElephantSQL database and output in json format to Flask app route

- Visualizations were created in javascript pulling input data from Flask app route and outputs were sent to HTML

- Dashboard page was formatted using HTML and CSS

- App was deployed to Heroku through GitHub

DASHBOARD

COVID-19 Dashboard

Use the interactive charts below to explore the dataset

Data from Jan 1, 2020 to Jan 31, 2021

Introduction

This dashboard visualizes the impact of COVID-19 on the world with emphasis on North America during the period of January 1, 2020 to January 31, 2021.

- An interactive map of Canada has been plotted, which shows the number of cases, deaths and vaccines by province.
- An interactive world map has also been plotted, which shows the number of cases and deaths in each country to visualize the global impact.
- Stock performance of four important technology stocks (Slack, Shopify, Zoom, and Cisco) have been plotted over the period to visualize the impact of COVID-19.
- A COVID-19 event checker can be used to check the major news from CNN that related to COVID-19. You can use the major event to compare with the stock graph to analyze how COVID-19 affects individual tech stock performance.
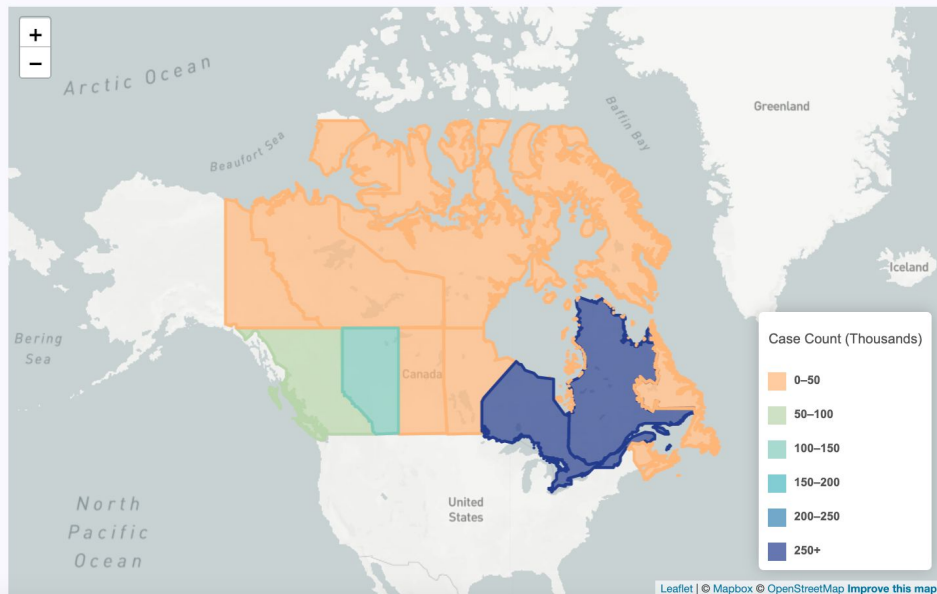
VISUALIZATIONS

- MAP OF CANADA
  - *Cases*
  - *Deaths*
  - V*accines*

Canada COVID-19 Map

Total Cases	Total Deaths	Total Vaccines
782,441	20,004	937,338

Hover over the Canadian provinces below for more COVID-19 data

VISUALIZATIONS

- World Map
  - *Cases*
  - *Deaths*

World Map

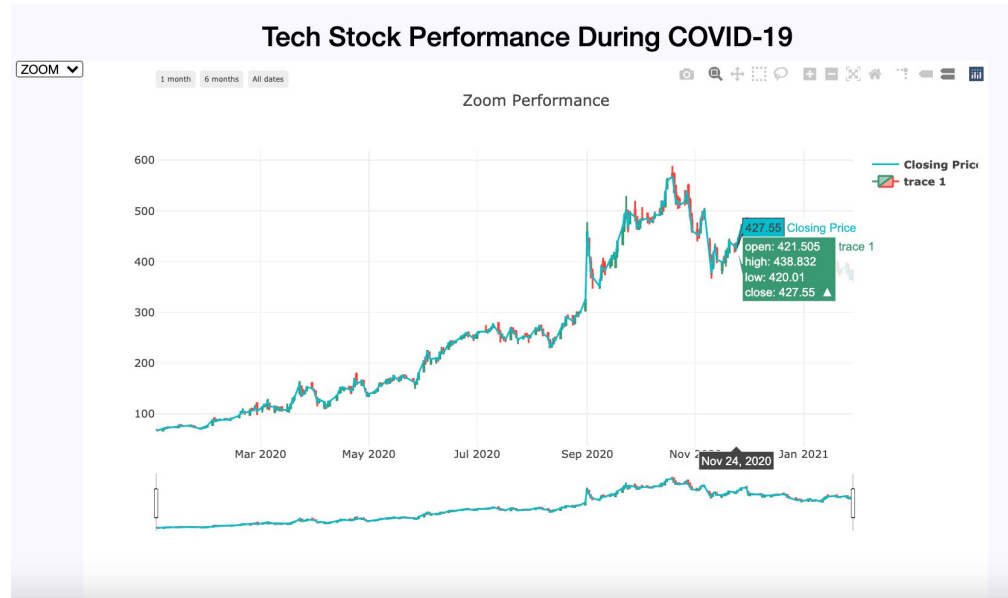| Global Cases	Global Deaths
102,965,855	2,227,905

World map below shows confirmed COVID-19 cases by country.
Click on countries for more COVID-19 data on deaths.

VISUALIZATIONS

- STOCK PRICES (Technology Stocks)
  - *Drop down for each stock*

VISUALIZATIONS

- Major COVID-19 news events finder

COVID-19 Events Checker

Select COVID-19 Event Date: 2020-04-30

Check Events!

Event	News_Date
Georgia Gov. Brian Kemp said shelter-in-place orders for most of the state will not be extended after they expire at 11:59 pm ET that night.	2020-04-30
Russia reported a record 7,099 new coronavirus infections, bringing the country's total number of cases to more than 100,000. Russia's total number of fatalities also rose to 1,073.	2020-04-30
South Korea reported no new domestic virus cases for the first time since February, according to the Korea Centers for Disease Control and Prevention.	2020-04-30
Around 3.8 million more workers in the U.S. filed for first-time employment benefits last week, bringing the national jobless total to 30 million — or around 18 percent of the workforce.	2020-04-30
Germany continued to ease lockdown measures, after Chancellor Angela Merkel announced that church and religious services will be allowed to take place and playgrounds, galleries, museums, and zoos will be allowed to reopen. Concerts and major sporting events, however, will remain closed.	2020-04-30
The World Health Organization said it is "urgently" investigating a potential link between the coronavirus and Kawasaki syndrome, an illness of unknown cause that primarily affects children under 5.	2020-04-30
A Navy hospital ship, the USNS Comfort, departed New York City, a month after it was sent to relieve stress on local hospitals. The Comfort treated just 182 people as a surge in cases in the city fell short of the worst-case projections.	2020-04-30
Russia's Prime Minister Mikhail Mishustin tested positive for the coronavirus. Mishustin informed President Vladimir Putin of the result during a video conference.	2020-04-30
California Gov. Gavin Newsom ordered beaches south of Los Angeles closed after "disturbing" pictures emerged of thousands flocking to Orange County's coast and not social distancing. The city council in Huntington Beach later voted to authorize the city attorney to take legal action against the state for the beach closures.	2020-04-30
Hundreds of Michigan residents protested outside the state Capitol building in Lansing, with some pushing inside while the Legislature was debating an extension of Gov. Gretchen Whitmer's state of emergency in response to the pandemic.	2020-04-30

Discussion

- COVID has a severe impact at the global level and national level
- Vaccine rollouts have started in many countries, including Canada.
- The provinces of Ontario and Quebec are leading vaccine administration within Canada
- US and India leading the case and death count globally
- Significant news events related to COVID-19 impacted all the countries around the world and various companies (including technology)
- Technology stocks have seen a spike as work from home and virtual classes have become the latest trend throughout the world

Post Mortem

- Make our data live instead of it being static as of a specific page
- Enhance the dashboard with advanced HTML tags and formatting
- Make the application more interactive with new data and new insights
- Make our visualization more responsive using media queries
- To have navigation bars to link to each visualization to assist in navigating the web page
- Allow the visitor access to the data showed in the visualizations

Questions