# Twitter Sentiment Analysis during COVID-19

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# Introduction

- ❏ The Coronavirus outbreak has been a severe disruption to the global economy and this has affected all nations.
- ❏ In this pandemic the impact of social media platforms is becoming more noticeable than ever before.
- ❏ Social networking has a remarkable impact and is one of the most increasingly growing social information structures.
- ❏ Analyzing tweets during and after Coronavirus could be worthy as the condition and people's reactions are changing every instant during this critical period.
- ❏ The contribution of this work is to analyze the COVID-19 tweets dataset on news to aid the understanding of sentiment trends.

**Sentiment Analysis Based on tweets during COVID-19 using Twitter**

# Motivation

**The motivation behind this work has been to portray the fact that how irrationally people are behaving in the grim times of a pandemic.**
**The outcome will lie in the initiation of fact checking implied on social sites before its wide sharing, so that false and inappropriate news can be prevented and eliminated**

**To answer the following questions**

- **What are the reasons that some keywords create/induce negative thoughts in the population w.r.t. the public health system?**
- **Effects of Tweets on society**
- **What are the most popularly used keywords in social tweets on covid-19?**
- **What are the reasons that some keywords create/induce negative thoughts in the population w.r.t. the public health system?**
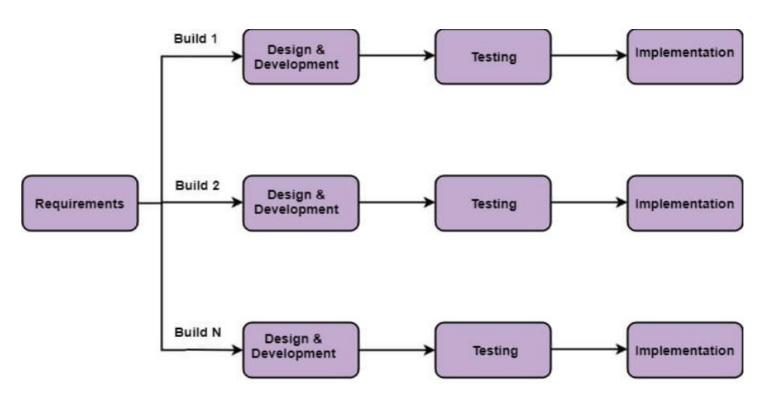
# Objectives

- ❏ **Sentiment Analysis to determine the attitude of the mass is positive,negative or neutral towards Covid19 topic.**

- ❏ **Analyzing people's sentiments , attitudes, opinions, emotions, etc. towards elements such as topics for Covid-19.**

- ❏ **Keep track of what's being said about your Covid19 topics on social media like Twitter.**

- ❏ **Can help us detect angry customers or negative/positive mentions before they  escalate.**

# Process Tools

- **Windows Operating System**

- **Python Platform(Jupyter Notebook/Google Colab)**

- **Modern Web Browser**

- **NLTK package and libraries like numpy,pandas,seaborn,matplotlib,etc.**

# Incremental Model

# Phases

❏ **Requirement analysis:** In the first phase of the incremental model, the product analysis expertise identifies the requirements.

❏ **Design & Development:** In this phase of the Incremental model of SDLC, the design of the system functionality and the development method are finished with success.

❏ **Testing:** In the incremental model, the testing phase checks the performance of each existing function as well as additional functionality.

❏ **Implementation:** Implementation phase enables the coding phase of the development system.

# When to Use

❏ **When the requirements are superior.**

❏ **A project has a lengthy development schedule.**

❏ **When Software team are not very well skilled or trained.**

❏ **When the customer demands a quick release of the product.**

❏ **You can develop prioritized requirements first.**

# Benefits

- ❏   **Errors are easy to be recognized.**

- ❏   **Easier to test and debug**

- ❏   **More flexible.**

- ❏   **Simple to manage risk because it handled during its iteration.**

- ❏   **The Client gets important functionality early.**

# Timeline

❑ **To create database by considering sentiment analysis**

❑ **To implement data preprocessing and analysis**

❑ **To study ML model**

❑ **To develop ML model**

❑ **To analyse ML model performance based on Sentiment analysis**

# Limitations

❏ **Tweets coupled with hashtags, emotions and links create difficulties in determining the expressed sentiment.**

❏ **There is a need for automatic techniques that require large datasets of annotated posts or lexical databases where emotional words are associated with sentiment values.**

❏ **The analysis are suitable for the English language in which there is a limitation for other languages.**

# Future Scope

❏ **This model can be used for different region, countries and social groups to understand their behaviour.**

❏ **The model can be extended to understand reactions towards vaccinations with the rise of anti-vaccine sentiments given fear, insecurity and unpredictability of COVID-19.**

❏ **Sentiment analysis which can provide more details for emerging topics during the rise of COVID-19 cases in relation to various government protocols such as lockdowns and vaccination plans.**

# Conclusion

❏ **Analyze the sentiments of COVID-19 related tweets through our model.**

❏ **To fight the coronavirus not only needs the guidance from the government but also a positive attitude from the public.**

❏ **Our analysis provides a potential approach to reveal the public's sentiment status and help institutions respond timely to it.**

❏ **The model can be used by officials for better COVID-19 management through policies and projects, such as support for depression and mental health issues.**

# THANKS!!
# ANY QUESTIONS?