# COMP47250: Team Software Project

PRESENTATION 1 8<sup>TH</sup> JUNE, 2020

# Team Rocket

Challenge 1: COVID-19

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# **Project Objectives**

Creation of a **Web-based Chatbot Application** which would enable us to solve user queries regarding COVID-19. We aim to create more awareness among people by letting users directly interact with the chatbot which uses trusted sources to gather information.

We plan to achieve two paramount features

#### **CHATBOT**

A chatbot which would answer user's queries pertaining to the ongoing COVID-19 Pandemic.

E.g. Symptoms of COVID-19?

#### **INTERACTIVE MAP**

An interactive map-based feature deploying visualizations that provide statistics about COVID-19 of various countries.

E.g. Total cases? Active cases?

# **Project Plan**

### **▶** Milestone 1 [30<sup>th</sup> June, 2020]

Chatbot with the ability to answer predefined user queries with the world map being functional at a basic level.

## ► Milestone 2 [11<sup>th</sup> August, 2020]

A higher implementation of the chatbot with the ability to interact with the user and answer a few customized user queries. World map would contain information regarding the statistics of COVID-19 for each country.

### Roles

## ► Aditya

**Primary role:** UI Design and Front-End Developer.

**Secondary role**: Integration of Front End with the backend of the application.

## ► Apurva

**Primary Role:** Data Mining and Data Cleaning.

**Secondary Role**: NLP Processing for Text.

#### **▶** Ashwin

**Primary Role**: Cloud Deployment and Integration. **Secondary Role**: Data Mining and Data Cleaning.

#### **▶** Sumit

**Primary Role:** Creation of Backend and Integration of the application.

**Secondary Role:** Cloud Deployment and Integration.

### Nripendra

**Primary Role:** NLP processing for Text.

**Secondary Role:** Creation of Backend and Integration of the application.

# Architecture



#### Web API

... API

data Gathering from publicly available data on Web APIs

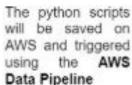
Python scripts from APIs using BeautifulSoup framework



AWS Data Lake



The data extracted from the Web API is stored on the Data Lake



Python scripts to analyze and process data on AWS Data Lake. The data processed pushed to an instance of PostgreSQL DB on AWS



Database

PostgreSQL

PostgreSQL.



data after The processing analysis is stored in the database

Using nltk python parse user queries in chatbot give them and relevant answers



Front-end web application and chatbot



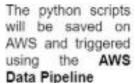
Using framework connect the tables in postgreSQL DB the to web application



Users







AWS Date

Ppelre



# Data Plan

- ▶ We are considering data from various APIs; it could be posts on social media or taken directly from easily available APIs.
- ▶ Just to give a gist...
- Social Media E.g. Tweets (Twitter API)
- □ COVID-19 API Johns Hopkins, CSSE
- □ COVID-19 Data European Centre for Disease Prevention and Control
- □ https://data.gov.ie/

# GitHub and Team Management tools

#### <u>GitHub</u>

Work done until now; like ideas proposed, minutes of meetings, any research done so far related to the project, has been pushed onto our team's repository.

#### Team Management Tools in place:

- □ Conducting daily meetings via **Google Meet.**
- We're using **Jira** in order to note down Minutes of Meetings, outline each team member's work, define sprints, plan the work to be done and the corresponding deadlines for them.

# STAY SAFE!

# THANK YOU!