

COMP47250: Team Software Project

PRESENTATION 2

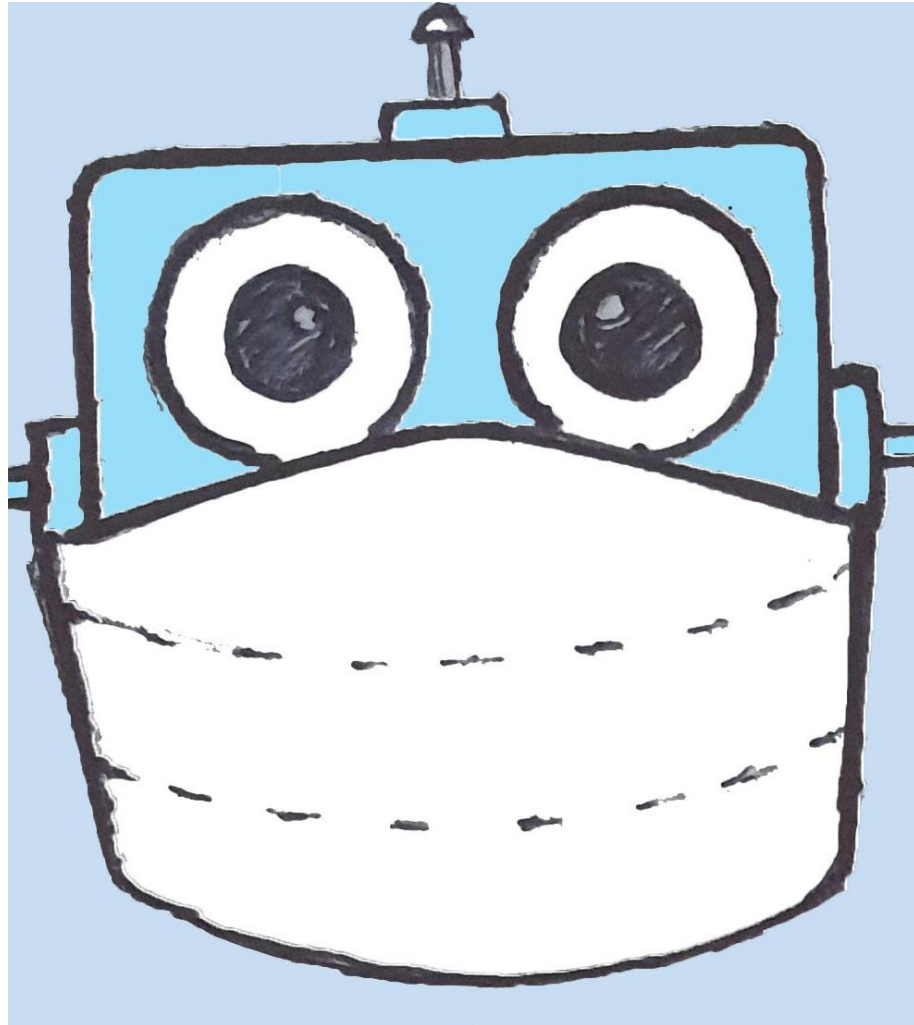
15TH JUNE, 2020



Team Rocket



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Project objectives

Challenge 1: COVID-19

COVID-19 INTERACTIVE VISUALIZER

AIM

Creation of a **Web-based Chatbot Application and Map Visualizer** which would enable us to solve user queries regarding the COVID-19 pandemic across the world. We aim to create more awareness among people regarding the effects of the pandemic specifically in the health sector, i.e. Infected rates, Death rates, Recovery rates, etc, by letting users directly interact with the chatbot. The web page will use trusted sources to gather relevant information in the aforementioned categories which will be used to drive the responses of the bot and power the map based visualizations of the world which will be also deployed on the same application.

We plan to achieve two paramount features

CHATBOT

A chatbot which would answer user's queries about COVID-19.

Eg: 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

- ▶ **Version 1.0** (8th June – 15th June'20)

First view of the rough front-end page of the web-page along with main statistical summarized data collected.

- ▶ **Version 1.1** (16th June – 22nd June'20)

Integration of Django to the front-end and a basic implementation of the Chat-Bot.

- ▶ **Version 1.2** (24th June – 1st July'20) → **Milestone 1/MVP**

Core implementation of the paramount tasks (House the Chat-Bot and prepare the map visualizations) before the interim presentation and subsequent preparation of the report.

- ▶ After having achieved V1.2 and the delivery of MVP , we aim to further breakdown tasks and reach goals to design a finalized sprint plan and plan the release versions accordingly.

Roles

▶ **Aditya and Minaz (Front-End Team)**

Research on tools for development, color palettes, color themes, research and design logo and bot icons.
Decide on the UI design and layout and functionality of the Webpage with the subsequent creation of Front-End.
Integration of the Front-End with the Back-End.

▶ **Apurva and Vishal (Data and Visualization Team)**

Research on potential APIs required and write scripts for Data Collection.
Data Mining and Data Cleaning/Pre-processing as and when required.
NLP Processing for Text and research/deploy visualizations.

▶ **Ashwin (Cloud Deployment Team)**

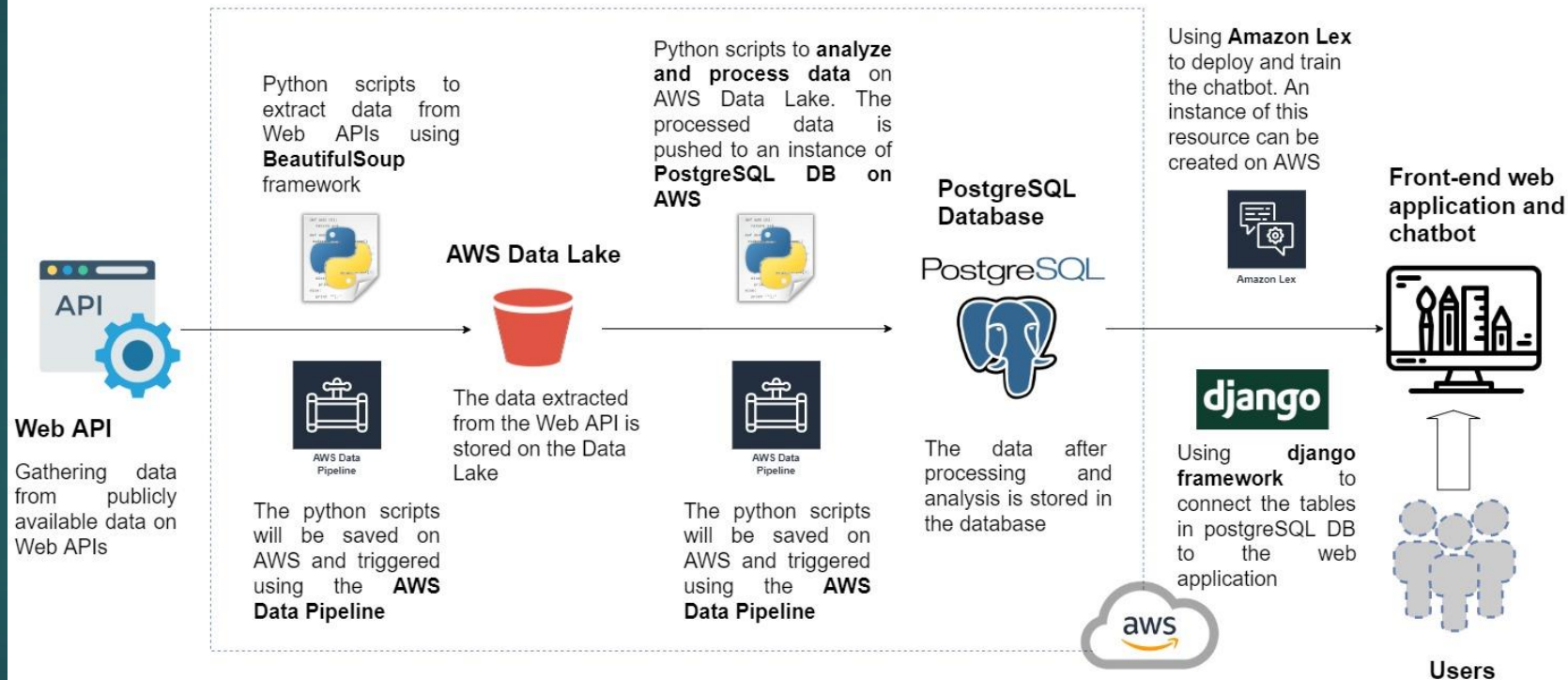
Test/Deploy the required resources (Data Lake/ PostgreSQL/Data Factory/DB).
Create dummy scripts and trigger them using data factory pipelines.
Research on how to connect PostgreSQL to Front-end.

▶ **Sumit and Nripendra (Django Team)**

Understanding Django and identify issues for implementation.
Analyze for the risks involved and prepare .Net Backup
Creation of Back-End and understanding Dialogue Flow for further integration.

Architecture

Team Rocket - Covid-19 Project Architecture



▶ Data to be considered

We are considering data from various APIs; We scoured the web for COVID-19 API's or other implementations of centralized world data regarding the pandemic. We plan to consider two broad types : DYNAMIC and STATIC data. Once the data is collected and curated, we aim to filter the type of queries the bot is able to answer.

DYNAMIC / LIVE DATA

▶ -Statistics of COVID-19 cases Per Country [Real Time Data, Updating regularly]

- ▶ Total cases
- ▶ Active cases
- ▶ Recovered cases
- ▶ Deceased cases
- ▶ Tests done

❖ <https://api.covid19api.com/summary>

❖ <https://api.covid19api.com/countries>

STATIC DATA






▶ -Data already loaded in and doesn't need frequent updates.

- ▶ Symptoms of COVID-19?
- ▶ Healthy habits to be followed?
- ▶ Whom to contact for testing related situations (some helpline numbers)

DATA PLAN

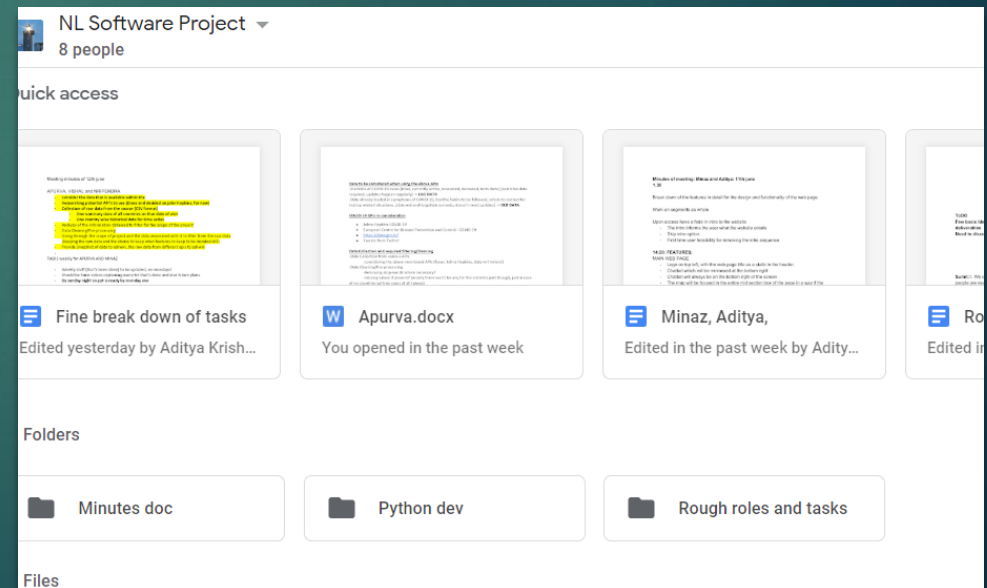
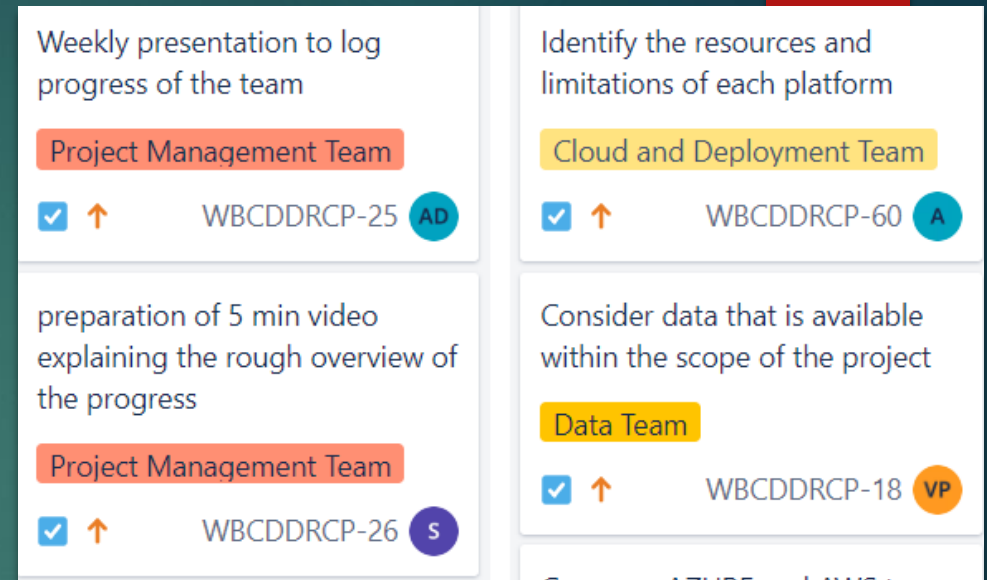
GitHub

- ▶ 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.
- ▶ We've created different folders and are constantly push-committing the work as and when it is completed.
- ▶ Just to give a gist...

 Code	Update Amazon Lex.docx	8 hours ago
 EvaluationTest	Test Script	yesterday
 Minutes	Add files via upload	22 hours ago
 Presentation	Folder Updation	3 days ago
 Project Objective_Draft.docx	Add files via upload	6 days ago

Team Management

- ❑ Team progress managed by Sumit and Aditya:
- ❑ Shared google drive folder which contains all the different folders for each team consisting of basically all of the data cumulated at one place for enhanced availability and accessibility, including the log of each MOM and documenting the progress of the team at each stage.
- ❑ Conducting daily meetings via **Google Meet** and logging MOM of each meeting
- ❑ We're using **Jira** to outline each team member's work, define sprints, plan the work to be done and the corresponding deadlines for them.
- ❑ Just to give you a gist, you can see on the right; our Jira board with tasks allocated and our shared folder on Google Drive.



Progress So Far..

Front-End

- ✓ Currently working on the Index page and it's contents.
- ✓ Started with CSS Framework Documentation
- ✓ Research and create bot icons and team logo.

Data

- ✓ Research on potential API's to use (Done and decided on John Hopkinns COVID-19 API).
- ✓ Scripts written for the collection of raw data from the desired sources (CSV format).
 - One summarized data of all countries consisting of statistical data revolving around the number of cases (Active, Recovered, Deceased).
 - One country-wise historical data (Time-series).

Test Evaluation Scripts

- ✓ Creation of a User Test Case script template and a peer review template.

Cloud Architecture

- ✓ Started with the research on which platform is best suited for the project between AWS and Azure
- ✓ Creation of an Analysis document justifying why AWS is better for this use case.
- ✓ Identifying the list of resources to be used on AWS.

Django Framework

- ✓ Creation of a Web Framework demo for the Chat-Bot .
- ✓ Started with the documentation analysis of Amazon LEX as a viable Chat-Bot option.

STAY SAFE!

THANK YOU!

-Team Rocket