CAPSTONE PROJECT

Project Plan

Weather-IFY

Project Title: Weather-IFY

Group Number: 01 (ML Projects)

Course-In-Charge: Mr. Gaurav Sharma

NIIT Faculty Mentor: Mr. Manish Hurkat & Mr. Bhavesh Sangwan

GROUP MEMBERS

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SHORT DESCRIPTION

Indian weather department want you to create the model, which can classify the storm into the hurricanes, Typhoons and their further subcategories if the wind, location and pressure is given for pacific oceans.

The data used in this series will be collected from Weather Underground's free tier API web service. We will be using the requests library to interact with the API to pull in weather data since 2015 for the city of Lincoln, Nebraska. Once collected, the data will need to be process and aggregated into a format that is suitable for data analysis, and then cleaned.

Analyzing the trends in the data with the goal of selecting appropriate features for building a Linear Regression model using the stats models and scikit-learn Python libraries.
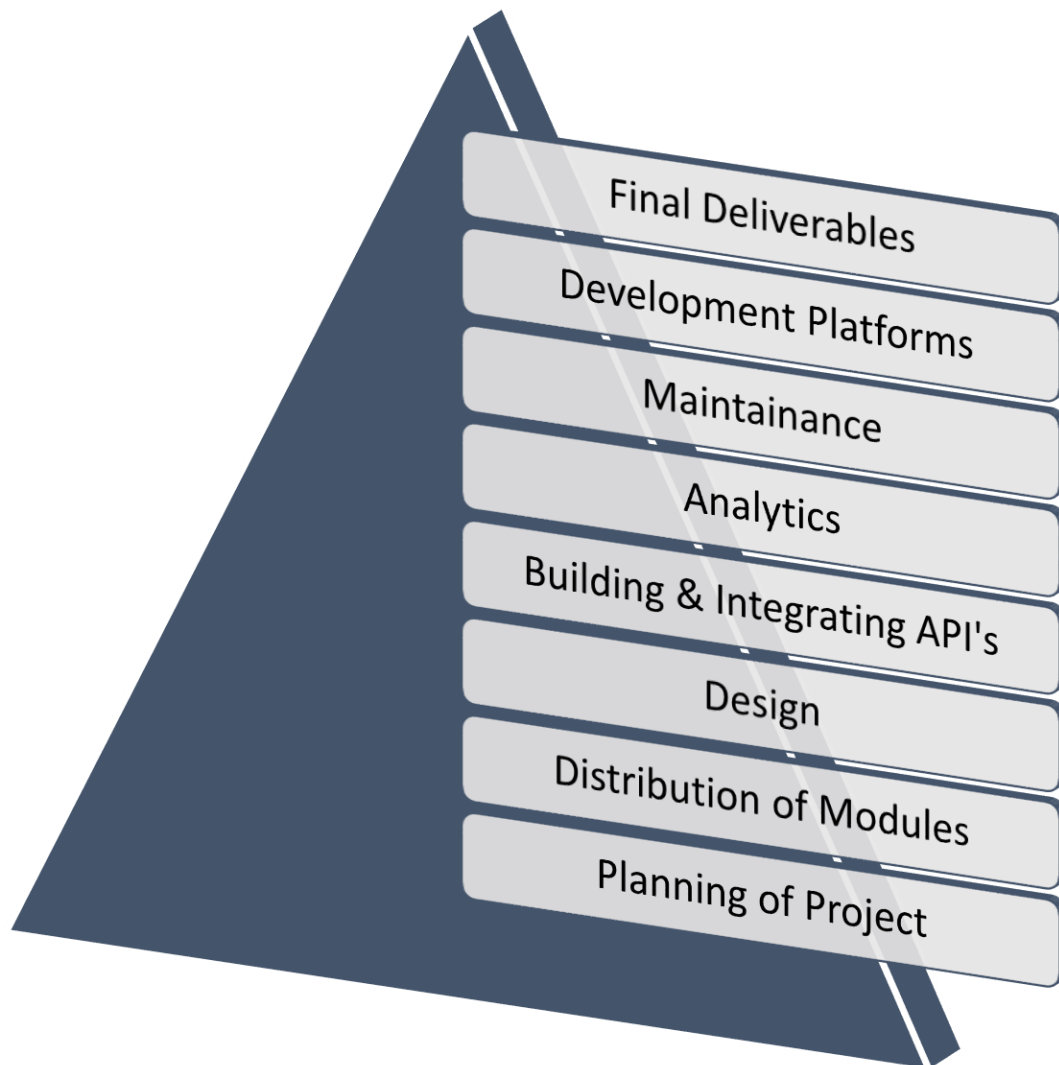
PROJECT SCOPE & DELIVERABLES

- Usage of Google Maps Geocoding API to transform any string address into numeric coordinates.
- Obtain weekly forecast and related weather information for any coordinates in the World.
- Output language and metric system are configurable parameters.

WORK ALLOCATION

- **Gaurav Tibrewal(Contact Number:84478536666):** Designing the Integrations, Early Deployment and Revisions
- **Manik Garg(Contact Number:7895309677):** Evaluating and Picking a Channel/Platform and a Development Approach
- **Kundan Dewangan(Contact Number:9165166292):** Determining the Role of the Bot and Setting the Goals
- **Syed Waseem Hussain(Contact Number:8696853263):** Designing User Stories, Backlogs (Zenhub) Storyboards with Internal Testing and Revision of our Use Case Detection
- **Kumar Aniket(Contact Number:7023987787):** UI Designing & GUI integration with Angular Framework

Final Deliverables

Development Platforms

Maintainance

Analytics

Building & Integrating API's

Design

Distribution of Modules

Planning of Project

TECHNOLOGIES & TOOLS USED

Technical detail of project-

- **Language to be used for project:** Python
- **Database to be used for the project:** Normal Excel File with data inputs for Pressure, Wind & Location Values.
- **API's:** DarkSky.net, Google Maps API Key.
- **Tools to be used:** Pycharm, Anaconda(Spyder)

UI OF THE PROJECT

- A simple Website using Bootstrap, HTML5, and CSS will be used for the beautification of the project.
- We may also try to create GUI, if possible.
- We may also try to use Angular Framework, If Possible.