Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID50307
Project Name	Project – Estimate the crop yield using data analytics.
Maximum Marks	4 Marks

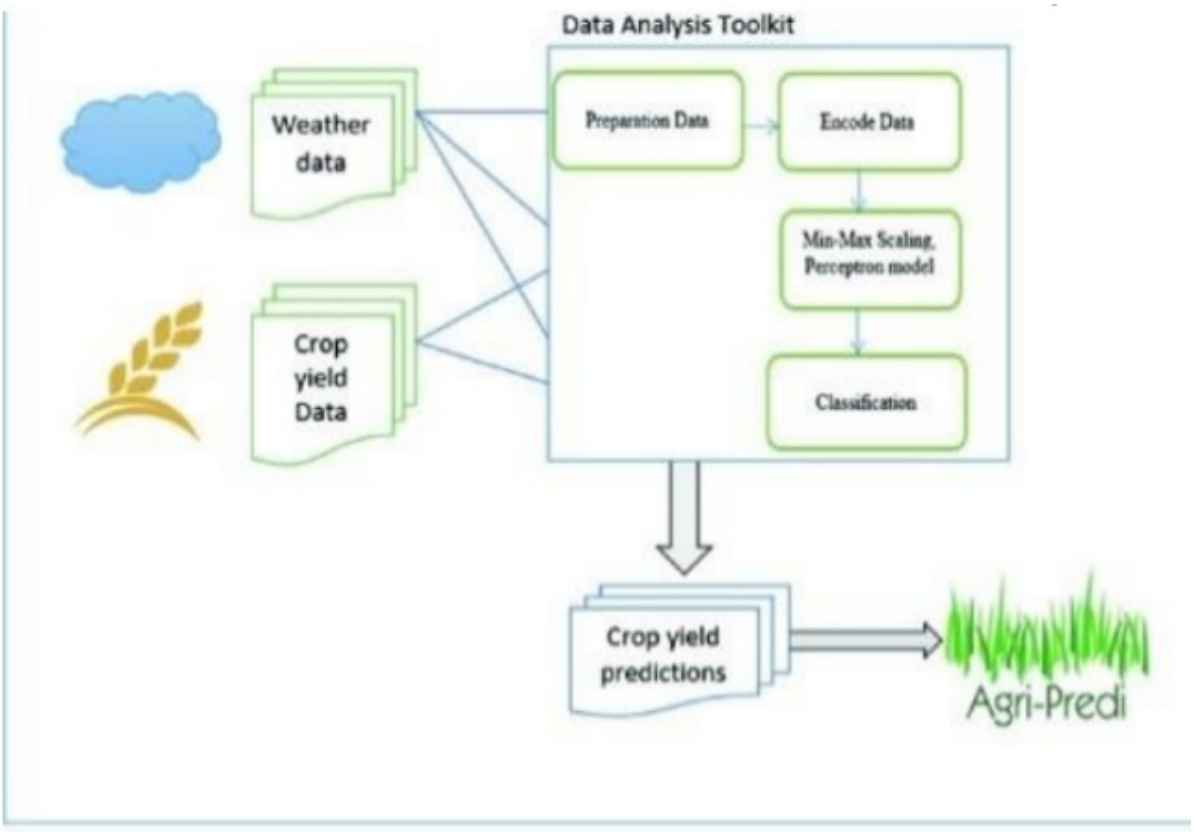
Solution Architecture:

System architecture represented in the mainly consists of weather API where we fetch the data such as temperature, humidity, rainfall etc. The crop yield prediction is a method to achieve a high yield of the crop using previous available data like crop name. season, area, production soil parameters continuously involves all features that used for high yield of the crop. Selection of features which are necessary for target feature. Some are not precisely consider as a yield additionally analysis play an important role in the prediction, linear regression approach having two factors response and explanatory variables. Here input parameters acts as independent and the way of predicting variables are dependent variables.

The architecture system combines all small parts and completes the purposed work. This work will proposes a system that processing methods to predicts analyzed agricultural datasets. Our agriculture dataset consists of crop, crop year, seasons,area,crop production
foremost profitable crop in the current weather and soil conditions and with current environmental conditions. This system helps the former with a sort of option for the crops that will be cultivated, which will be helping them over the long run.

Thus, authors have concluded Machine Learning algorithms can predict a target outcome by using Supervised Learning. This paper focuses on supervised learning techniques for crop yield prediction. To get the specified outputs it needs to generate an appropriate function by set of some variables which can map the input variable to the aim output. The paper conveys that the predictions can be done by ML algorithm which attain the crop prediction with best accurate value by considering least number of models.

Example - Solution Architecture Diagram:


Data Analysis Toolkit
Weather data
Crop yield Data
Preparation Data
Encode Data
Min-Max Scaling, Perceptron model
Classification
Crop yield predictions
Agri-Predi