

WEEK 5 SUBMISSION

Project Title : “ Prediction of Agriculture Crop
Production in India”

Domain : Agriculture

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This is the report for week 5 of the data science and machine learning internship. In this week, the test plan and test cases were discussed. It is given as follows

Test Plan/ Test Cases: The implementation of the project was divided into two i.e crop yield prediction and rainfall prediction (for fertilizers module).

Crop Yield Prediction: This module returns the predicted production of crops based on the user's input. If the user wants to know the production of a particular crop, the system takes the crop as the input as well. Else, it returns a list of crops along with their production as output.

Fertilizers Module: This module is used to suggest the farmer on usage of fertilizer based on the rainfall in next few days. To predict the rainfall for the next 15 days we are using an API service provided by Open Weather'. If it is likely to rain we suggest the farmer not to use the fertilizer.

Test Procedure

- Step 1: Choose the functionality i.e., crop prediction or yield prediction.
- Step 2: If the user chooses crop prediction: Take soil type and area as inputs. These values are given as input to the random forest implementation in the backend and the corresponding predictions are returned. The algorithm returns a list of crops along with their production predicted.
- Step 3: If the user chooses yield prediction: Take crop, soil type and area as inputs. These values are given as input to the random forest implementation in the backend and the corresponding crop yield prediction is returned. The algorithm returns the predicted production of the given crop.

