Project Title: Estimate the crop yield using data analytics   **Project Design Phase-I- Solution Fit**   **Team ID:** PNT2022TMID31901

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`

Customers are harvester, and all the farmers from different state in all over India.

6. CUSTOMER CONSTRAINTS `CC`

Customers require very accurate predictions of the crop yield in past days. The cost for implementing the solution. Lack of knowledge in making the predictor model.

5. AVAILABLE SOLUTIONS `AS`

There are very few cop yield prediction models available, some of which are not too accurate. They also lack the ability to give the correct analysis for taking decision to plant the crop based on the season and place.

Explore AS, differentiate

Focus on J&P, tap into BE,

2. JOBS-TO-BE-DONE/ PROBLEMS `J&P`

To obtain better understanding of crop yield by using different data on crop yield.

Predicting productivity of crop in various climatic conditions can help farmer and other partners to take right decision in planting the crop.

9. PROBLEM ROOT CAUSE `RC`

The root cause of the problem is unforeseen/unpredictable weather delays that cause wastage of crop and even water. This make the customer to get frustrated and dispirited.

7. BEHAVIOUR `BE`

To develop a model that has a good prediction of crop yield according to the land and season along with more updates of about past crop production. Implementing the right solution for this problem.

Focus on J&P, tap into BE,

Identify strong TR & EM

3. TRIGGERS `TR`

To predict the crop production in different state and to increase the production in future.

4. EMOTIONS: BEFORE / AFTER `EM`

Before, the farmers planted the wrong crop and wasted more crops and water.
After the analysis, the accurate model can help farmer to decide on what plant to crop and when to crop.

10. YOUR SOLUTION `SL`

Our solution includes using algorithm such as Supervised Learning Algorithm like Logistic regrssion, Classification, Exploratory Data Analysis, Machine Learning to predict the crop production and to a take decision on what crops to grow. The customers will be able to look at our solution visualized as dashboard, report and even as a story by seeing these they will get an insights of Crop production in India.

8. CHANNELS OF BEHAVIOR `CH`

Collecting the information of crop yield in offline.

And uploading it in an online portal as dashboard or story or report for users to make use of the analysis.

Identify strong TR & EM