Project Design Phase-I
Proposed Solution Template

Project Title: Estimate the Crop Yield using Data Analytics
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Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	India is one of the top countries for agricultural output, making crop production one of the most significant sources of revenue in the country. Inputs like seed, water, pesticides, and fertilisers may be used precisely and at the proper moment for the crop to maximise production, quality, and yields due to digital farming. To choose the crops that will be grownin a field , the majority of farmers follow conventional agricultural practises. Farmers may make better decisions for healthy crop production based on statistics.
2.	Idea / Solution description	Crop production in India is one of the most important sources of income and India is one of the top countries to produce crops. As per this project we will be analyzing some important visualization, creating a dashboard and by going through these we will get most of the insights of Crop production in India.
3.	Novelty / Uniqueness	Agriculture is important for human survival because it serves the basic need. Due to variations in climatic conditions, there exist bottlenecks for increasing the crop production in India. It has become challenging task to achieve desired targets in Agri based crop yield. To choose the crops that will be grown in a field , the majority of farmers follow conventional or traditional agricultural practises. Farmers may make better decisions for healthy crop production based on statistics.

		Agricultural statistics are useful for planning, monitoring and evaluation purposes. Therefore, we use IBM Cognos BI tool in order to provide a useful insights from the data regarding the agriculture of India and perform analytics and provide necessary statistics in order to increase the crop production.
4.	Social Impact / Customer Satisfaction	Crop yield prediction is one of the important factors in agriculture practices. Farmers need information regarding crop yield before sowing seeds in their fields to achieve enhanced crop yield. The use of technology in agriculture has increased in recent year and data analytics is one such trend. By performing analytics in given data and providing useful insights such as average crop production season wise will help farmers to identify the season with high and least crop production with help of insight, and we can also get to know the area that's been used yearly for crop production, by producing such insights it will create a good impact in efficiency of crop production in agriculture.
5.	Business Model (Revenue Model)	Supply chain operation between farmers and Entrepreneurs. Helps the companies in project scheduling. Farmers can achieve enhanced crop yield by predicting the yield before sowing the seeds. farmers can overcome the challenging tasks involved in crop production. The estimation of production of crop help the companies in planning supply chain decision
6.	Scalability of the Solution	In terms of scalability of the project, we can increase the crop yield production by performing analytics and interpreting useful insights from given data. Insights such as estimating the season wise average crop production, estimating yearly area used in crop production, by providing such insights this can help farmers taking a better decision I'm choosing suitable crops according to season and we can get to know the state in India with least crop production and can focus on those states to increase their crop production. Therefore, this solution can significantly increase the scalability of the crop productionin India