## **Problem Statement**

### **Mentorness Internship Program**



#### **Problem Statement:**

This internship project aims to conduct a comprehensive analysis of Indian agriculture, focusing on district-wise and year-wise data. The dataset provides detailed information on various crops, their areas, production, and yields across different districts and years. The goal is to leverage Power BI to create interactive visualizations that uncover trends, patterns, and disparities in agricultural practices, enabling stakeholders to make informed decisions for sustainable farming and resource allocation.

#### **Dataset Description:**

The dataset encompasses a wide range of agricultural variables, including crop areas, production quantities, and yields for different crops such as rice, wheat, sorghum, millets, pulses, oilseeds, sugarcane, and more.

#### **Project Objectives:**

- 1. Data Exploration:
  - Explore the dataset to understand the distribution of agricultural variables across districts and years.
- 2. Crop-specific Analysis:
- Analyze the trends in the cultivation of major crops, including rice, wheat, and pulses, focusing on changes in area, production, and yield.
- 3. Regional Disparities:
- Identify disparities and variations in agricultural practices and outcomes across different districts and states.
- 4. Seasonal Patterns:
  - Explore seasonal patterns in crop cultivation, considering kharif and rabi seasons.
- 5. Impact of External Factors:
- Investigate the impact of external factors like weather conditions on crop performance.
- 6. Fruits and Vegetables Analysis:
- Analyze the cultivation trends of fruits, vegetables, and their overall contribution to agricultural practices.
- 7. Sustainable Farming Insights:
- Derive insights that can contribute to promoting sustainable farming practices and optimizing resource allocation.

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#### **Deliverables:**

- Interactive Power BI dashboards providing insights into year-wise and district-wise agricultural patterns.
- Visualizations depicting trends in major crops and their variations over time.
- Reports on regional disparities, seasonal patterns, and the impact of external factors.
- Recommendations for policymakers and stakeholders in the agriculture sector.

This project provides interns with an opportunity to gain hands-on experience in agricultural data analysis and visualization using Power BI, contributing valuable insights to enhance agricultural practices and decision-making in India.