

# **Detailed Project Report (DPR)**

## **Crop Production Analysis in INDIA**

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## Introduction:

### Why this Detailed Project Report:

This section should provide a general introduction of the project being submitted and shall include write up on: type of the crop, state, district, wise crop production, area uses to produce crop, seasons wise crop production, need for the project, etc.

### Scope:

The DPR documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), cost of project, business use cases, project execution strategy and technology architecture and risk impact analysis. The DPR uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.

## General Descriptions:

### Product/Project Prospective:

Crop production is one of the fundamental branches of agriculture. Crop production is the basis for providing the livestock industry with feed, and the population with food. Also, crop products are used in many industries as raw materials of plant origin, such as food, textile, pharmaceutical, fuel and others.

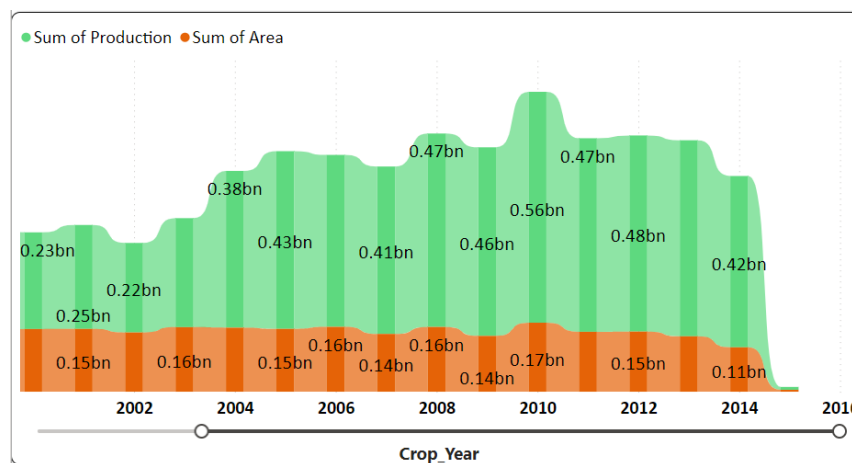
Crop production is a branch of agriculture, which includes the cultivation of crops in field cultivation, vegetable growing, fruit growing, etc. This industry gives necessary food. Consumer goods manufacturing and food industries gets raw materials. Livestock industry, in turn, uses by-products such as straw, silage, and food industry waste.



Agricultural enterprises have a powerful production potential, despite the difficult conditions of production, caused by high prices for production resources, low attractiveness of rural areas, and difficulties in obtaining loans.

This is mainly explained by the fact that domestic producers produce environmentally friendly products, while the production of products uses a minimum number of preservatives. These circumstances create a demand for agricultural products. Moreover, now the demand for farm agricultural products, as products produced in natural conditions, is growing.

Thus, the transition to sustainable economic growth and further improvement of the organization of crop production is impossible without promoting the use of science, technology and innovations. For an individual choice of the necessary implementations, an in-depth study of the actual processes of production of the product, its nature, orientation and dynamics, is necessary.



### Objectives:

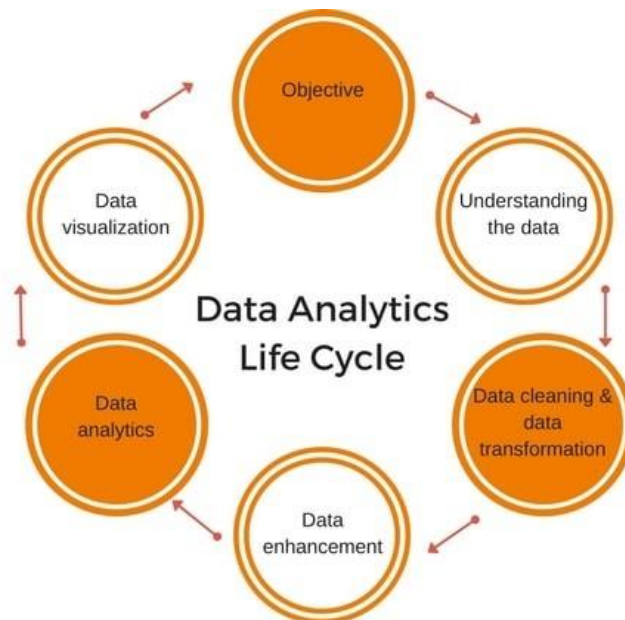
The main objective is to understand the overall crop production State/UT wise in several seasons, average annual growth of major crops, year wise damage crop, import-export of crop and pattern of land utilization; and this analysis helps you to take future business decision.

### Status Feasibility studies:

#### Requirements Analysis:

- The specific problem(s) or issue(s) faced by stakeholders like citizens, businesses or governments that would be understand the production of crops year and season wise.
- Describe the project proposed in terms of the rationale behind the project, clearly focusing on the existing condition (how it will help in improving the situation and bring benefits to the stakeholders).

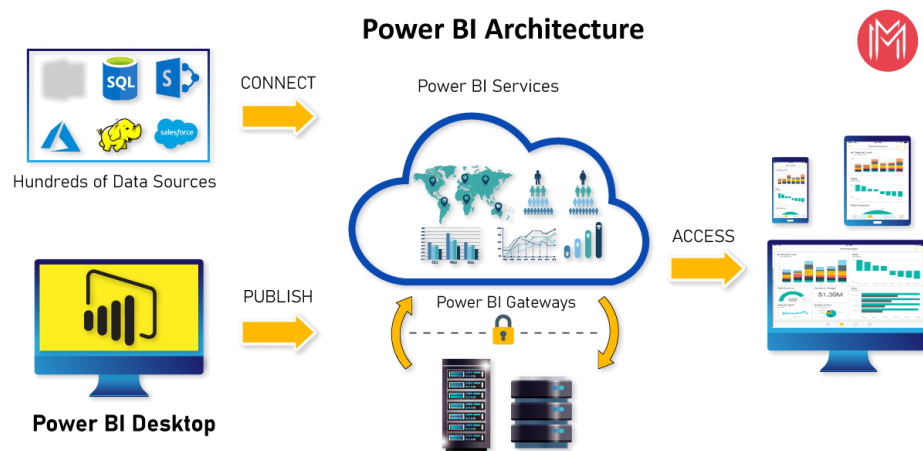
### Life Cycle of Project:



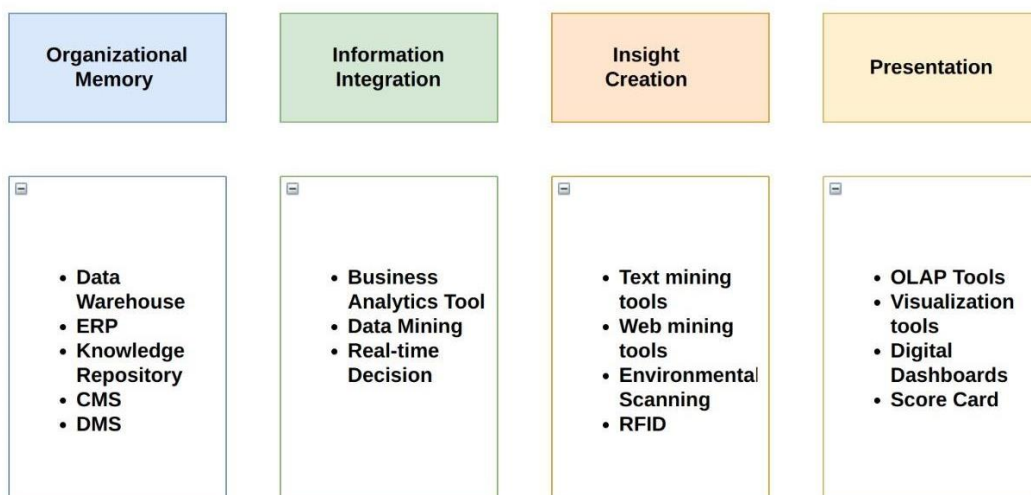
- **Objective:** Understanding the Business is most important think, in this phase Business Analyst can help to provide the detail key factors of this project and then you can decide your main objective. Here the main objective of the “**Crop Production Analysis**” project is to creating Reports and Dashboard.
- **Collecting Data:** Based on Business requirements you need to collect the data from various APIs, Open-Source Datasets, Internal Databases etc.
- **Understanding Data:** Understanding of Data is one of the most of important think before start to create the Reports & Dashboard.
- **Data Cleaning & Transformation:** Data cleaning is the process that removes data that does not belong in your dataset. Data transformation is the process of converting data from one format or structure into another.
- **Data Enhancement:** “Data Enhancement” is a process that involves adding new data elements to an existing Dataset.
- **Data Visualization:** Data visualization is **the graphical representation of information and data**. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.
- **Data Analytics:** After visualization data, we create the multiple Reports for analysis the data.

## Detailed Architecture:

Detailed Architecture means, Architecture of Power BI.



## Function Design:



## Tools Used:

- I have used Business Intelligence tool i.e., MS Excel and Power BI.
- MS Excel & MySQL DB is used for data.
- Jupyter Notebook helps to load and find missing data, etc.



## Investment Outlay:

### Cost of Project:

This project I am doing during my internship programme.

### Technology Fee Details:

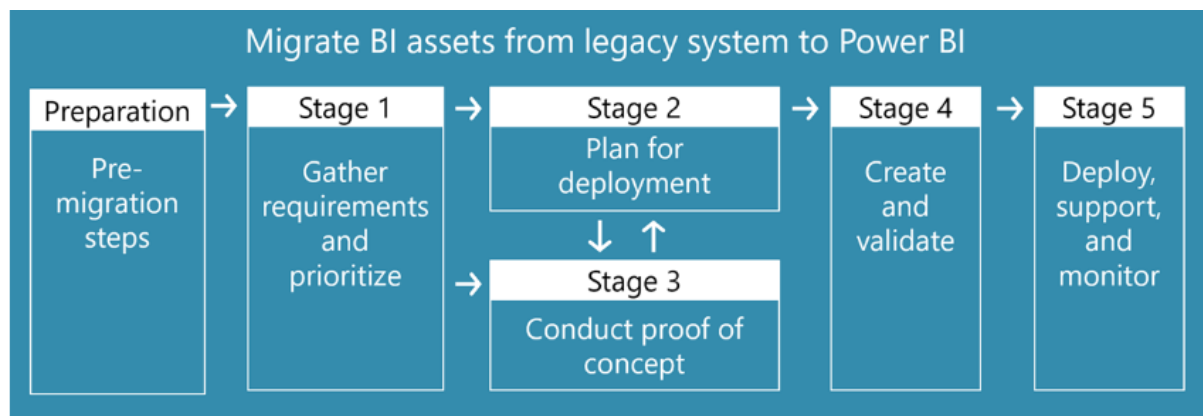
**Excel:** zero cost (free version used)

**Jupyter Notebook:** zero cost (open-source software)

**Power BI Desktop:** zero cost (open-source software)

**MySQL Database:** zero cost (open-source software)

## Project Execution Strategy:



## Technology Details:

- Excel
- MySQL Database
- Jupyter Notebook
- Python
- Power BI



## Implementation Details:

To implement this project, we follow some steps, like-

- Collect data from data source,
- Push to MySQL database,
- Open Power BI Desktop,
- Fetch data from MySQL,
- Create reports and dashboard, etc.
- And finally publish this reports & dashboard in Power Bi Service.

## Risk Impact Analysis:

Pass.

## Business Cases:

The main objective is to understand the overall crop production State/UT wise in several seasons, average annual growth of major crops, year wise damage crop, import-export of crop and pattern of land utilization; and this analysis helps you to take future business decision.

## Project Management:

This project managed by me.

## Conclusion:

With the help or guidance of ineuron.ai I completed this project. This project helps to governments, stakeholders, or others users to understand the overall crop production State/UT wise in several seasons, average annual growth of major crops, year wise production and pattern of land utilization; and this analysis helps you to take future business decisions.

----- Thank You -----