

# **Low Level Design Document (LLD)**

## **Crop Production Analysis- India**

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## Contents:

SL. No.	Title	Page No.
1.	Problem Statement	3
2.	Scope	3
3.	Architecture	3-4
4.	Data Descriptions	5
5.	Connect Data to Power BI	6

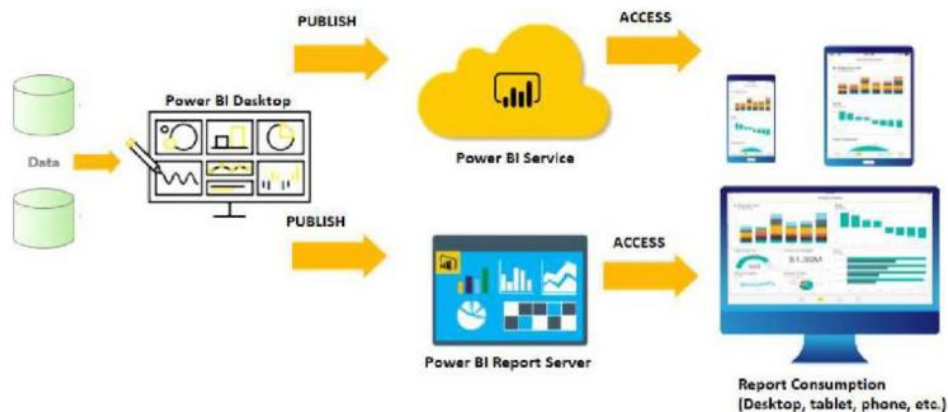
## Problem Statement

- This dataset provides a huge amount of information on crop production in India ranging from several years. Based on the Information the ultimate goal would be to predict crop production and find important insights highlighting key indicators and metrics that influence the crop production.
- Make views and dashboards first.
- Make a story out of it.

## Scope

Low Level Design (LLD) is a component-level design process that follows a step-by-step refinement process. This process can be used for designing data structures, required software architecture, source code, and performance algorithms. Overall, the data organization may be defined during the requirement analysis and then refined during the data design work. This study demonstrates the how different analysis help out to make better business decisions and help analyse the crop production state wise, which can be led to better decision making.

## Architecture

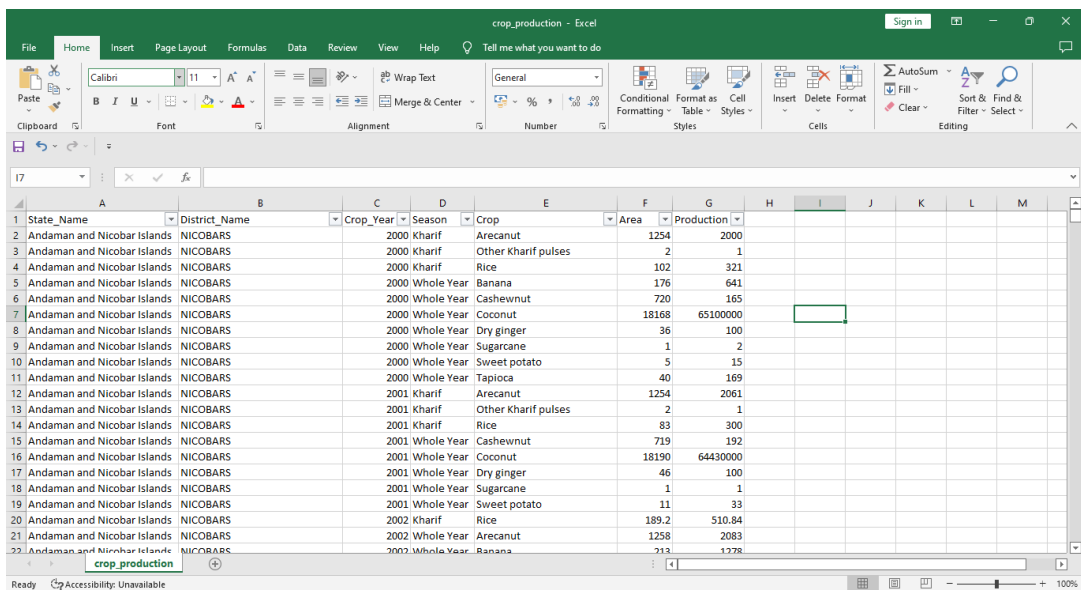


- **Power Query**
  - Power Query is the data transformation and mesh up the engine. It enables you to discover, connect, combine, and refine data sources to meet your analysis need. It can be downloaded as an add-in for Excel or can be used as part of the Power BI Desktop.

- **Power Pivot**
  - Power Pivot is a data modelling technique that lets you create data models, establish relationships and create calculations. It uses Data Analysis Expression (DAX) language to model simple and complex data.
- **Power View**
  - Power View is a technology that is available in Excel, SharePoint, SQL Server and Power BI. It lets you create interactive charts, graphs, maps, and other visuals that bring your data to life. It can connect to data sources and filter data for each data visualization element or the entire report.
- **Power Map**
  - Microsoft's Power Map for Excel and Power BI is a 3D data visualization tool that lets you map your data and plot more than a million rows of data visually on Bing maps in 3D format from Excel table or Data Model in Excel. Power Map works with Bing maps to get the best visualization based on latitude, longitude, or country, state, city, and street address information.
- **Power BI Desktop**
  - Power BI Desktop is a development tool for Power Query, Power Pivot, and Power View. With Power BI Desktop, you have everything under the same situation, and it's easier to develop BI and data analysis experience.
- **Power BI Service**
  - Power BI Service is the Software as a Service (SaaS) part of Power BI. It is also known as Power BI Online. To access Power BI Service, you need to log in to Power BI service.
- **Power Q&A**
  - The Q&A feature in Power BI lets you explore your data in your own words. It is the fastest way to get an answer from your data using natural language. An example could be what was the total coal export in a year by a particular country. Once you've built your data model and deployed that into the Power BI website, then you can ask questions and get answers quickly.

## Data Descriptions

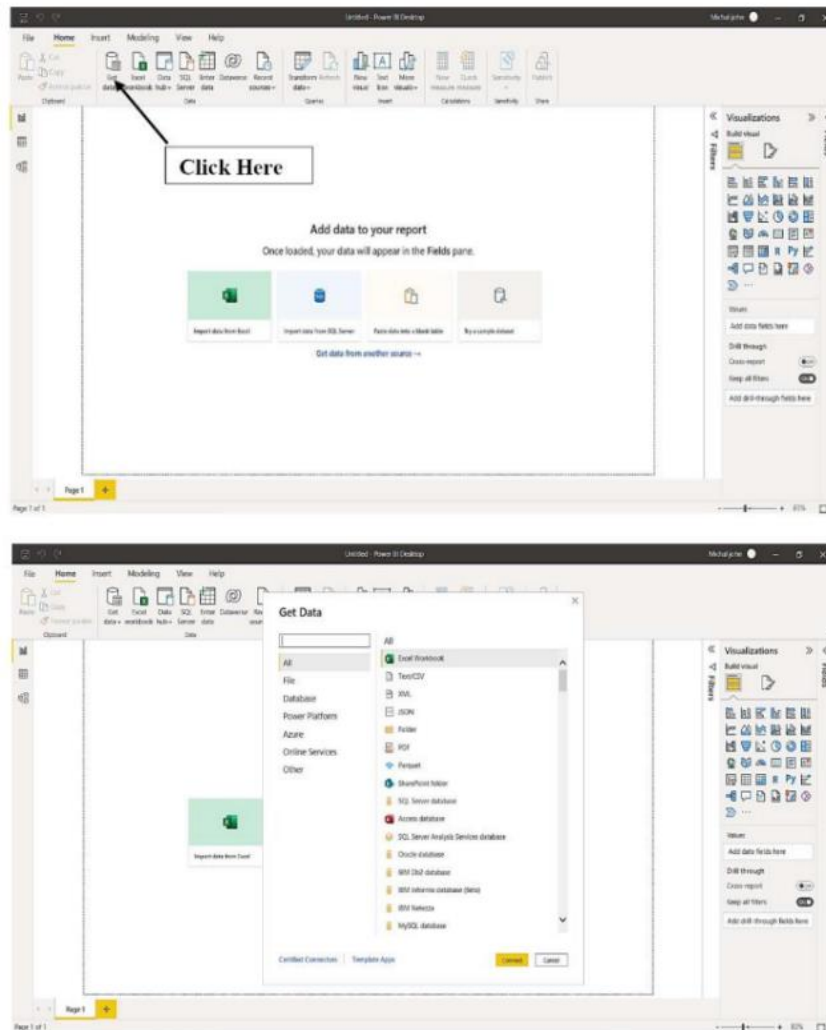
- **state\_name:** mention the state name(s),
- **district\_name:** mention the district name(s),
- **crop\_year:** mention the year of crop production,
- **season:** mention the season (in which season crop will produce),
- **crop:** mention the crop category,
- **area:** mention the area unit in hector,
- **production:** mention the production unit in quintals.



State_Name	District_Name	Crop_Year	Season	Crop	Area	Production
Andaman and Nicobar Islands	NICOBARS	2000	Kharif	Arecanut	1254	2000
Andaman and Nicobar Islands	NICOBARS	2000	Kharif	Other Kharif pulses	2	1
Andaman and Nicobar Islands	NICOBARS	2000	Kharif	Rice	102	321
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Banana	176	641
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Cashewnut	720	165
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Coconut	18168	65100000
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Dry ginger	36	100
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Sugarcane	1	2
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Sweet potato	5	15
Andaman and Nicobar Islands	NICOBARS	2000	Whole Year	Tapioca	40	169
Andaman and Nicobar Islands	NICOBARS	2001	Kharif	Arecanut	1254	2061
Andaman and Nicobar Islands	NICOBARS	2001	Kharif	Other Kharif pulses	2	1
Andaman and Nicobar Islands	NICOBARS	2001	Kharif	Rice	83	300
Andaman and Nicobar Islands	NICOBARS	2001	Whole Year	Cashewnut	719	192
Andaman and Nicobar Islands	NICOBARS	2001	Whole Year	Coconut	18190	64430000
Andaman and Nicobar Islands	NICOBARS	2001	Whole Year	Dry ginger	46	100
Andaman and Nicobar Islands	NICOBARS	2001	Whole Year	Sugarcane	1	1
Andaman and Nicobar Islands	NICOBARS	2001	Whole Year	Sweet potato	11	33
Andaman and Nicobar Islands	NICOBARS	2002	Kharif	Rice	189.2	510.84
Andaman and Nicobar Islands	NICOBARS	2002	Whole Year	Arecanut	1258	2083
Andaman and Nicobar Islands	NICOBARS	2002	Whole Year	Banana	213	1278

## Connect Data to Power BI

First of all, open Power BI Desktop in your desktop. At first screen there is a get data tab click on it then it shows the list of sources then click on that source which you want to connect after connection browser the data then load into Power BI desktop.



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