AGRICULTURE DATA ANALYSIS USING POWERBI

Summer Internship (8th Sem – Computer Engineering)

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Internal Guide

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External Guide

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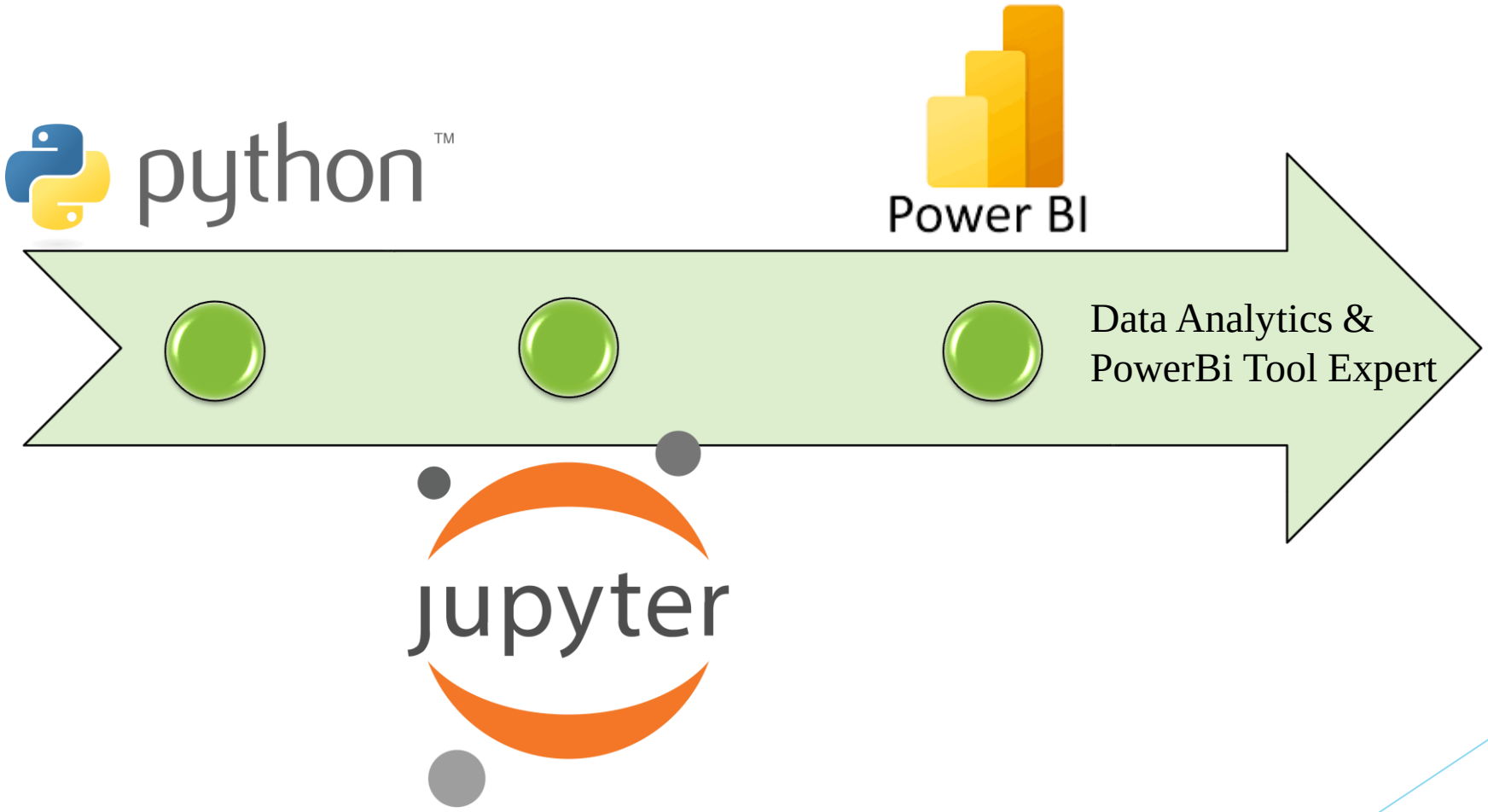
The Pioneer Tech

❖ INTRODUCTION

The project titled "Agriculture Data Analysis using PowerBI" aims to leverage Microsoft PowerBI to analyze and visualize agricultural data for informed decision-making. This Project endeavor focuses on integrating diverse datasets, including crop yields, weather patterns, and soil conditions. The project seeks to employ advanced analytics and visualization techniques to extract meaningful insights, aiding farmers and stakeholders in optimizing agricultural practices. Key objectives include developing a robust data pipeline, implementing PowerBI dashboards. Through this project, I will gain practical experience in data integration, analysis, and visualization within the context of agricultural systems..

❖ Road Map Of Creating a Project



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   - ❖ Build data table model relationships
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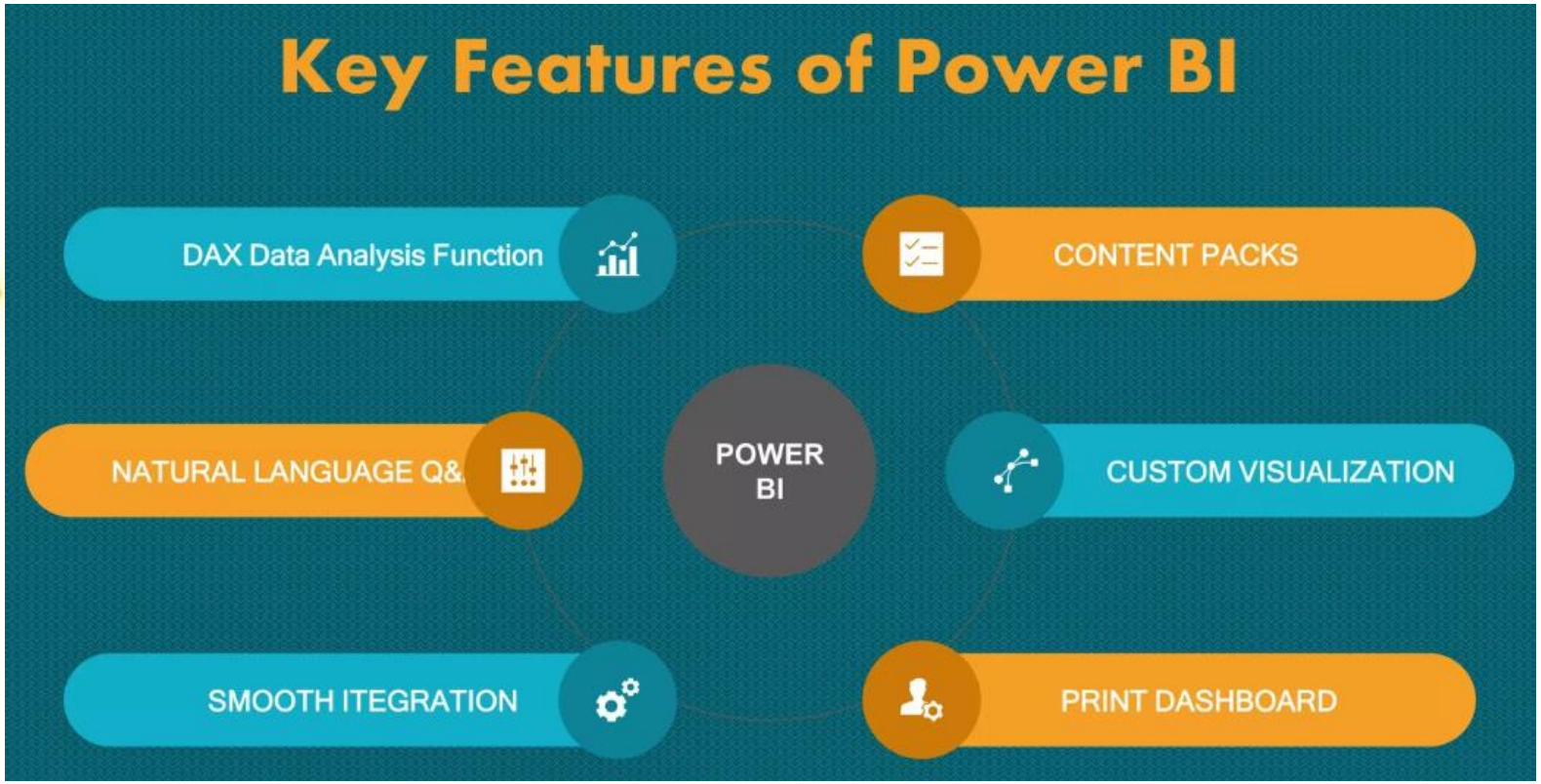
1. Overview of PowerBI

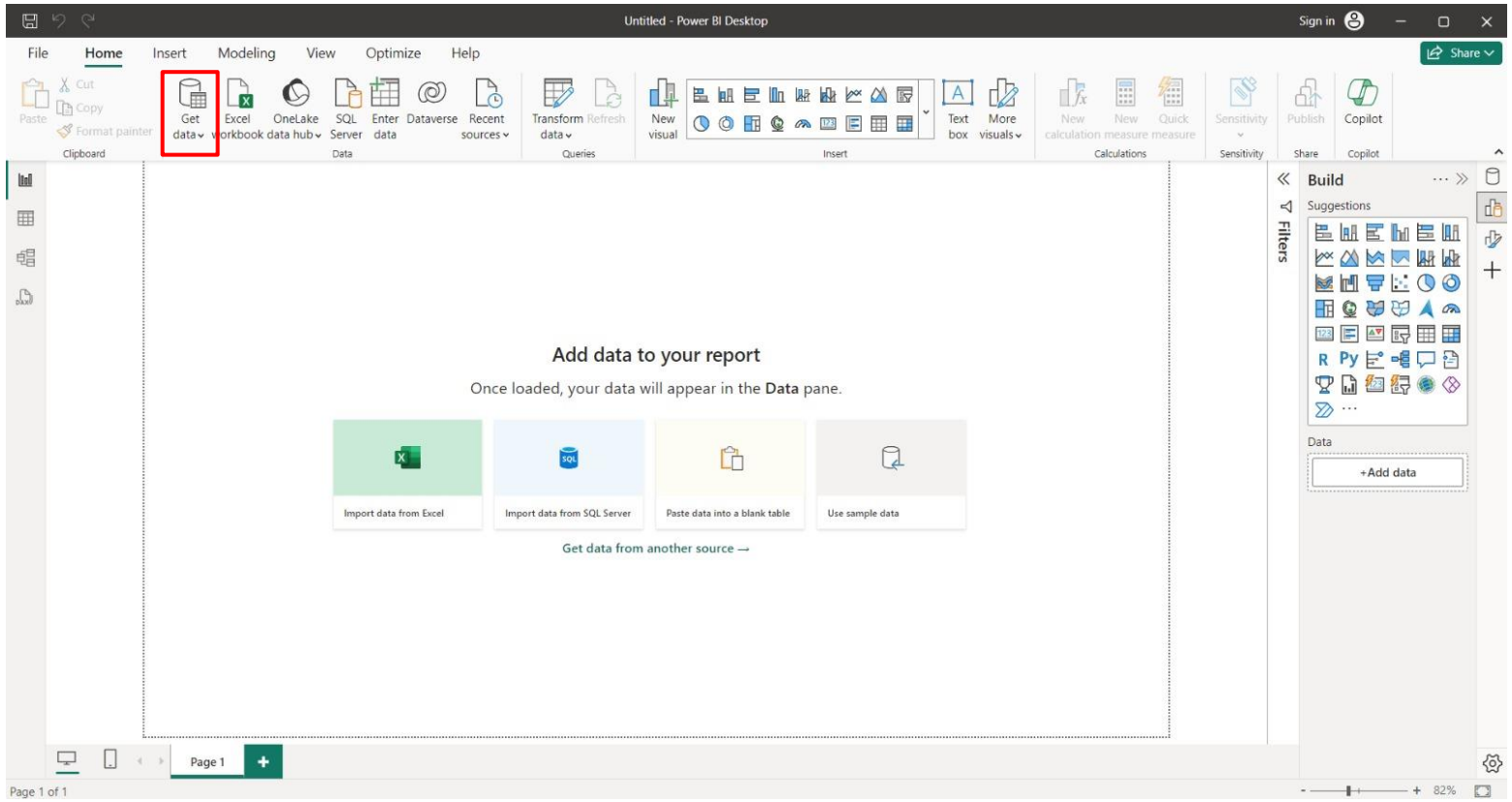
Power BI

❖ Power BI is a Business Intelligence tool developed by Microsoft. It helps you interactively visualize your data and make intelligence-based business decisions as a result.



Splash Screen Displayed

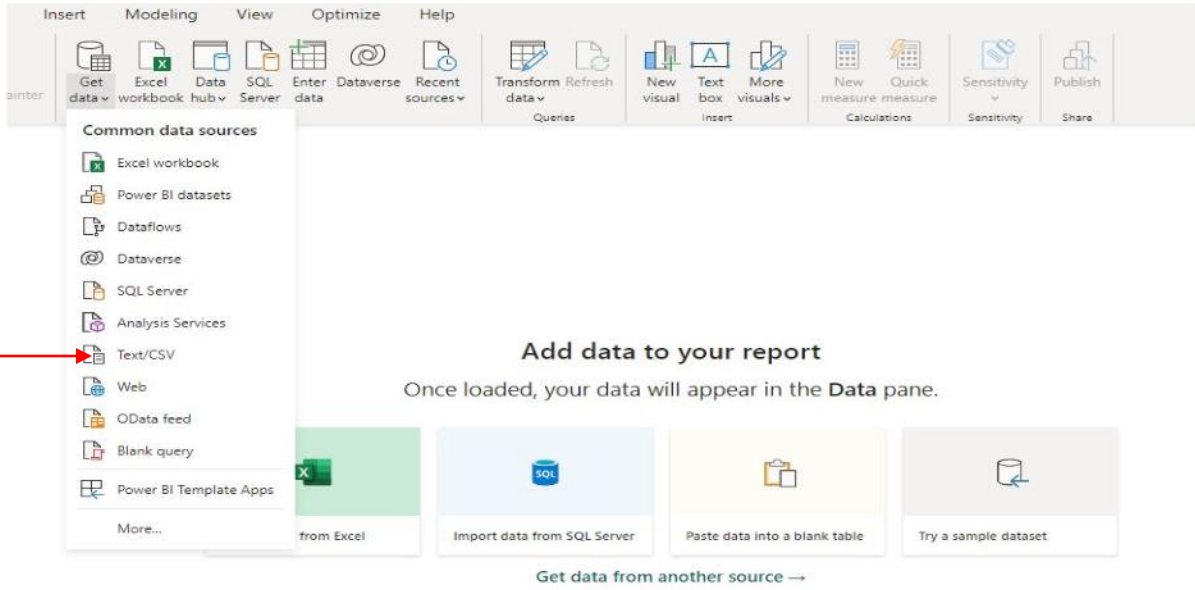
- This process is followed at the start of a new project, to import the data that you'll be working with, and at any point in the future when you need to add new data to the project.



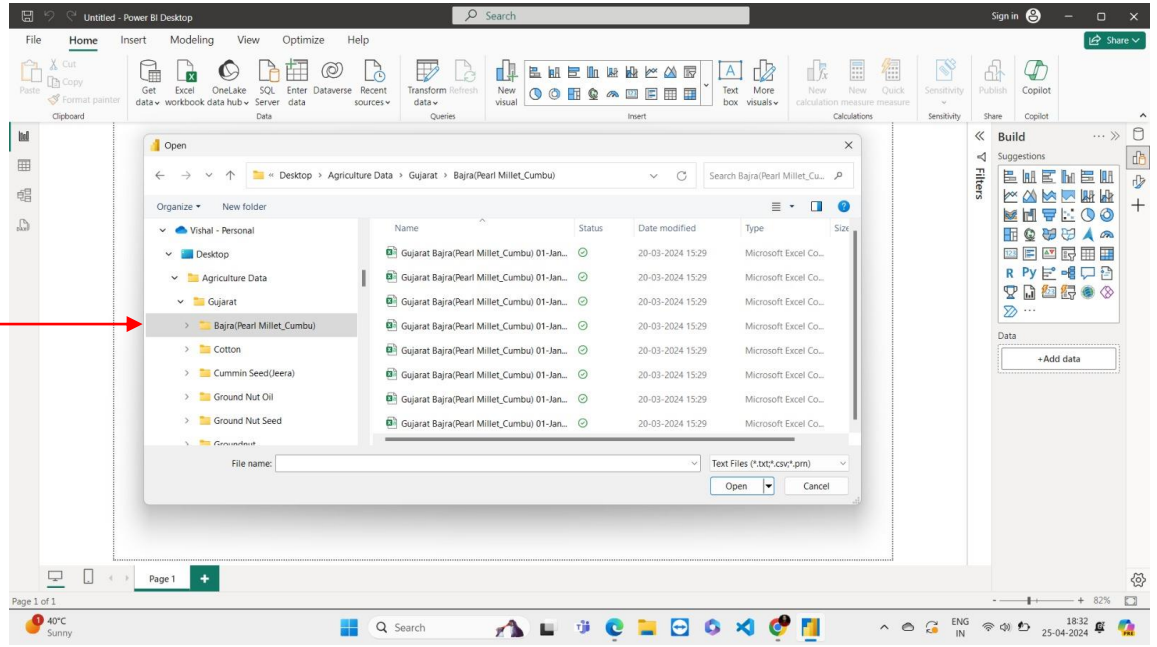
When you launch Power BI Desktop, a welcome splash screen is displayed.

2. Connecting to data Sources

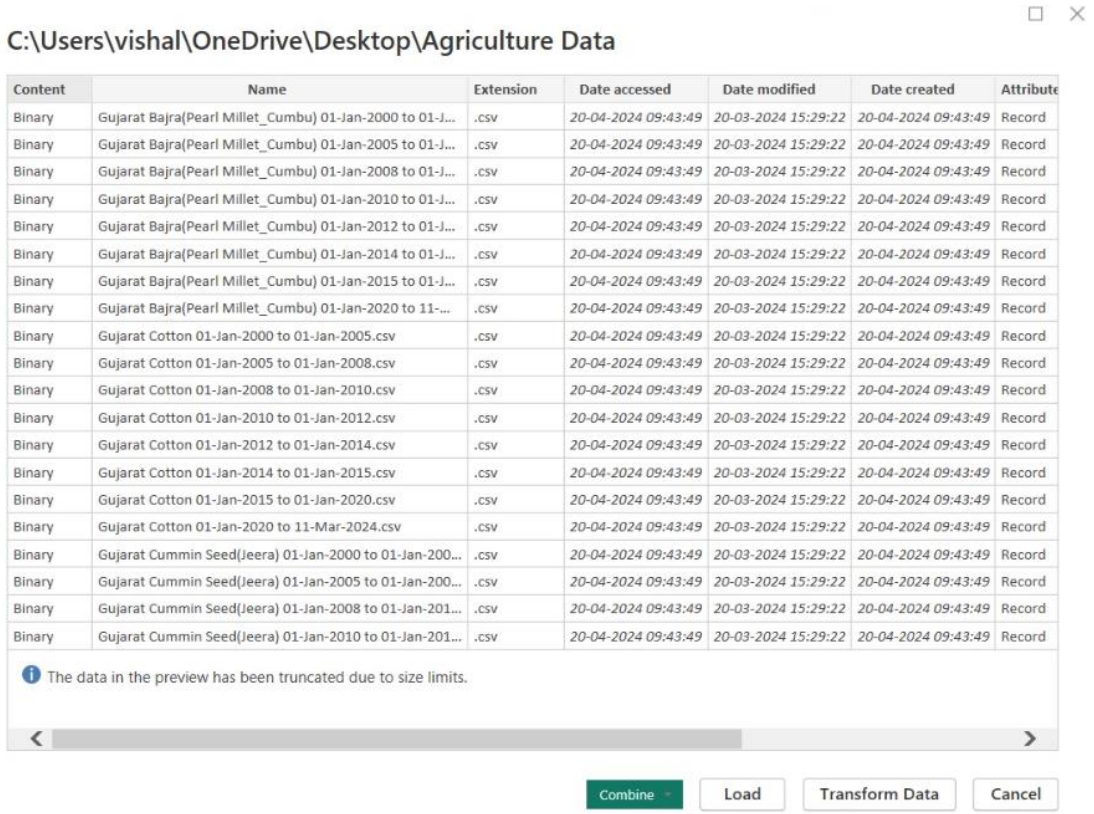
- You can connect to the data source from that screen, and you can go to the PowerBI environment.
- On the environment, you can get from the 4 sources on your page or click on Get Data as shown below for more options.



- Select Text/CSV from the list and click Connect.
- Browse to the unzipped data files you saved in step 3.2, select the first file DimCustomer.csv, and click Open



❖ Load Transform Data

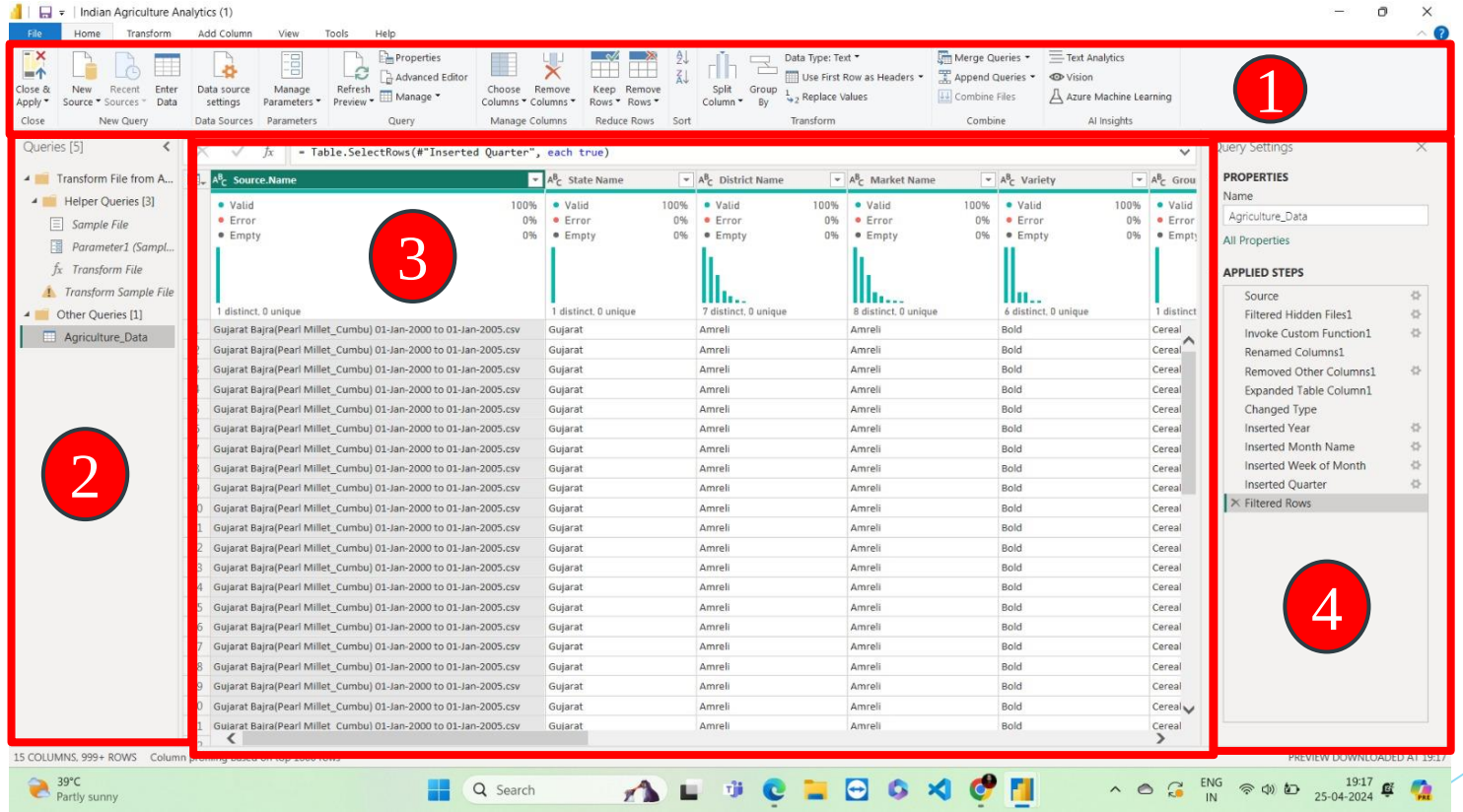


- When you click Open, the below window appears, displaying sample data from the selected file.
- Above, you can see the options Load and Transform Data. For now, click Load to import the data directly into Power BI. This imports the data as it is, and loads it into Power BI Desktop.
- Repeat the same process and load all other sample files (DimDate, FactInternetSales, DimProduct, DimProductCategory, and DimProductSubCategory). Note that you will have to load these one at a time.
- At this point it would be useful to Save the Power BI Desktop model. The data has now been loaded into the Power BI model and you have a blank canvas to start working with

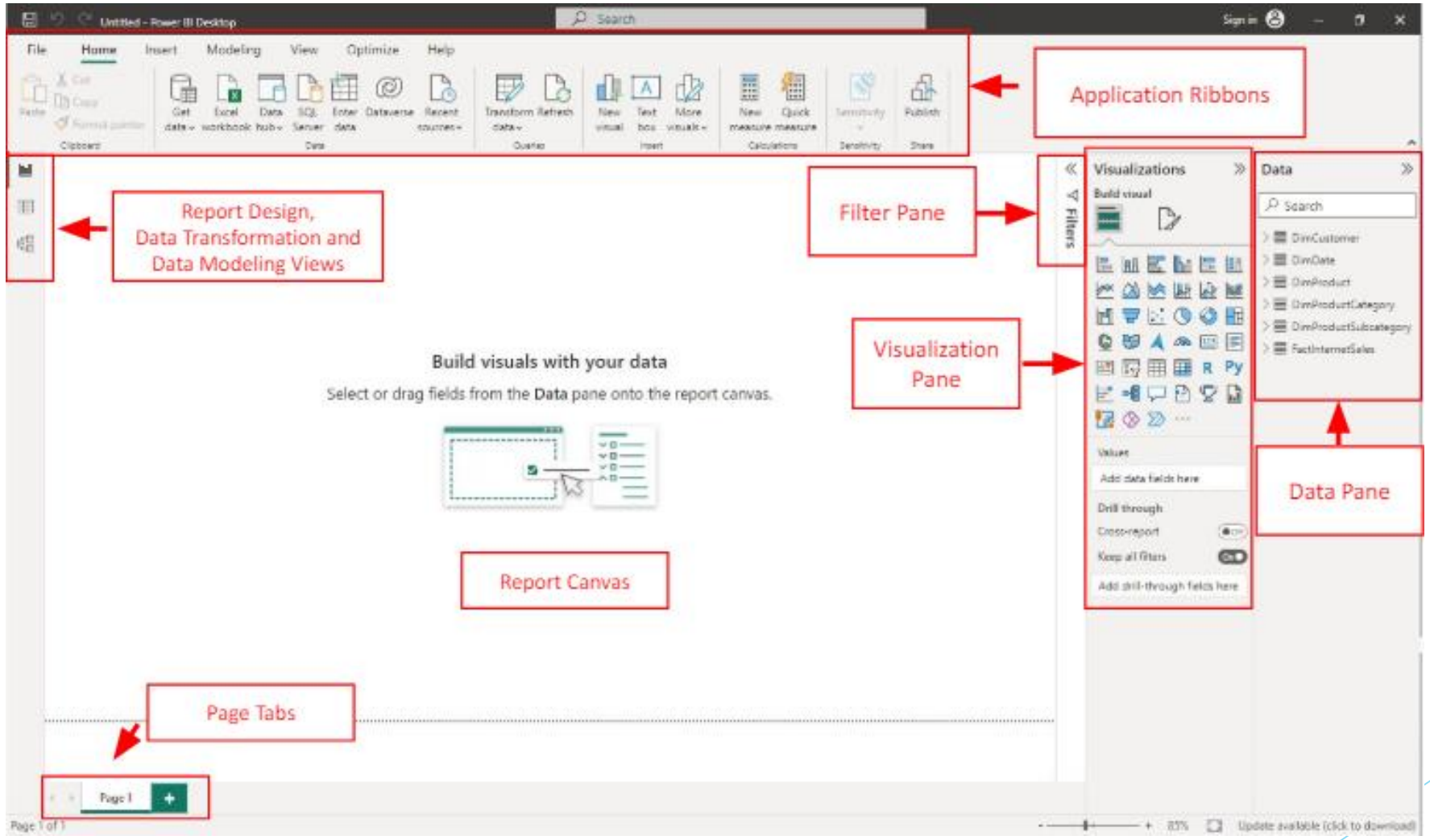
❖ Interface Of Query Editor

❖ Query Editor Consist of 4 Parts

1. Query Ribbon
2. Left Pane
3. Center Pane
4. Query Settings

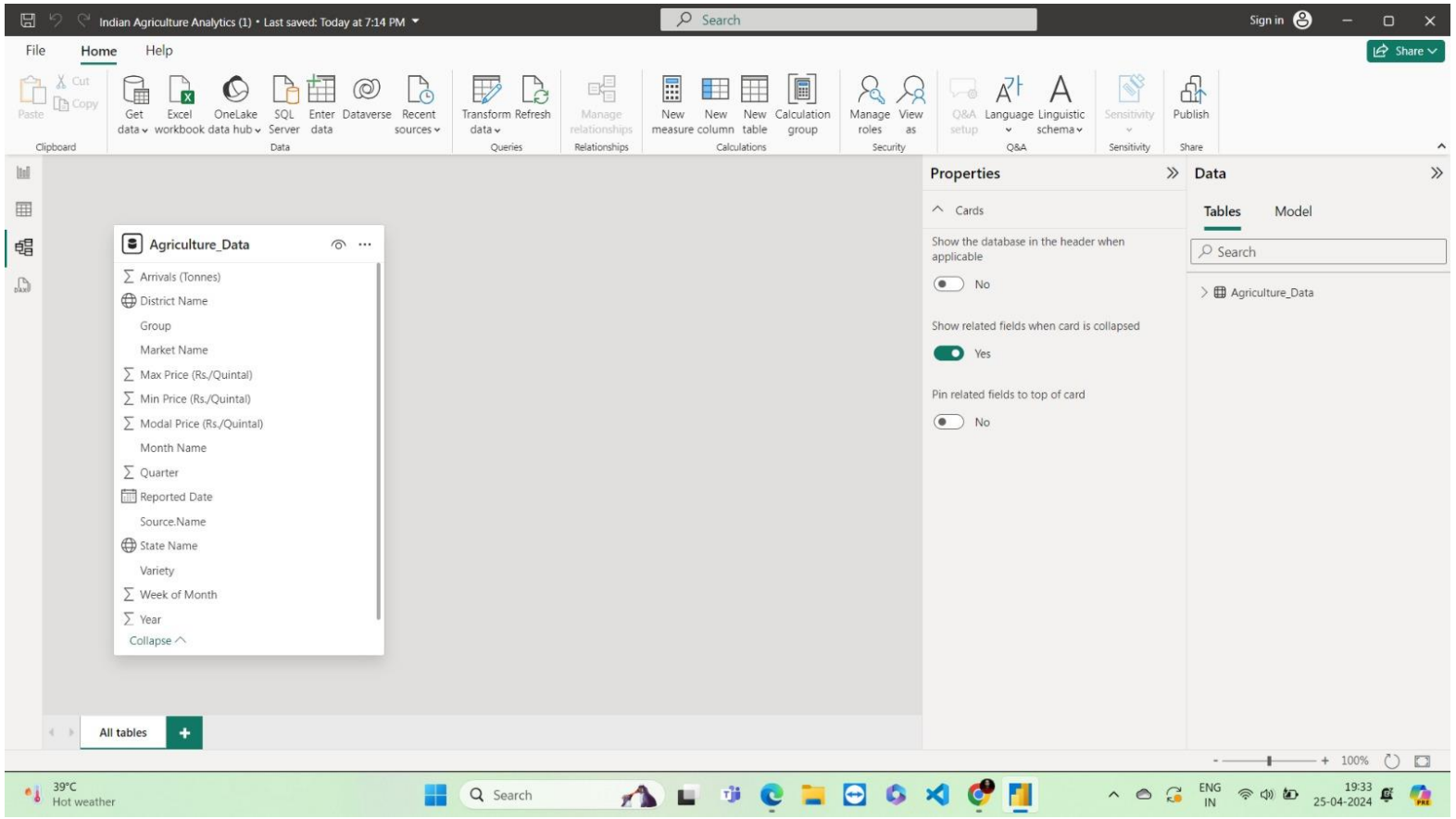


The PowerBI Desktop Application Interface



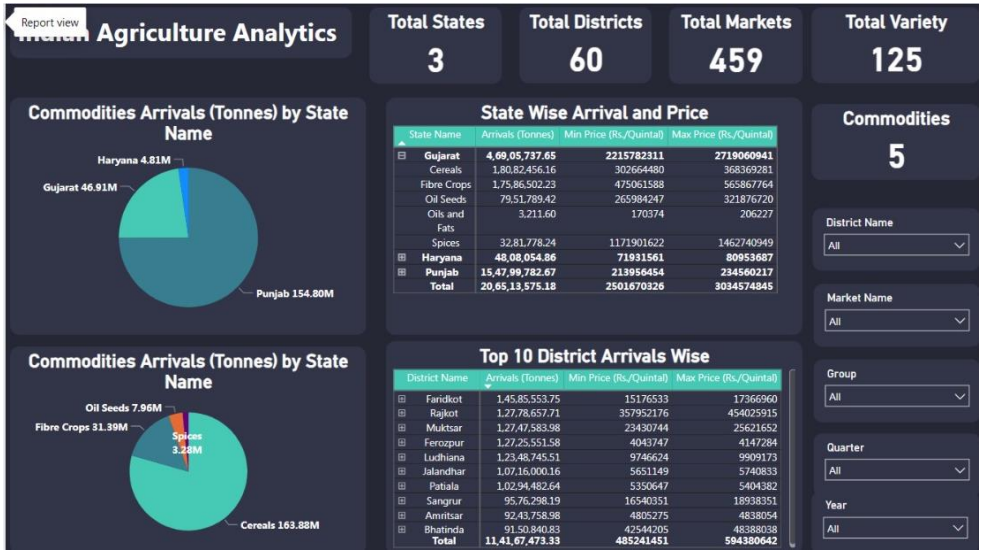
3. Modelling Data Relationship

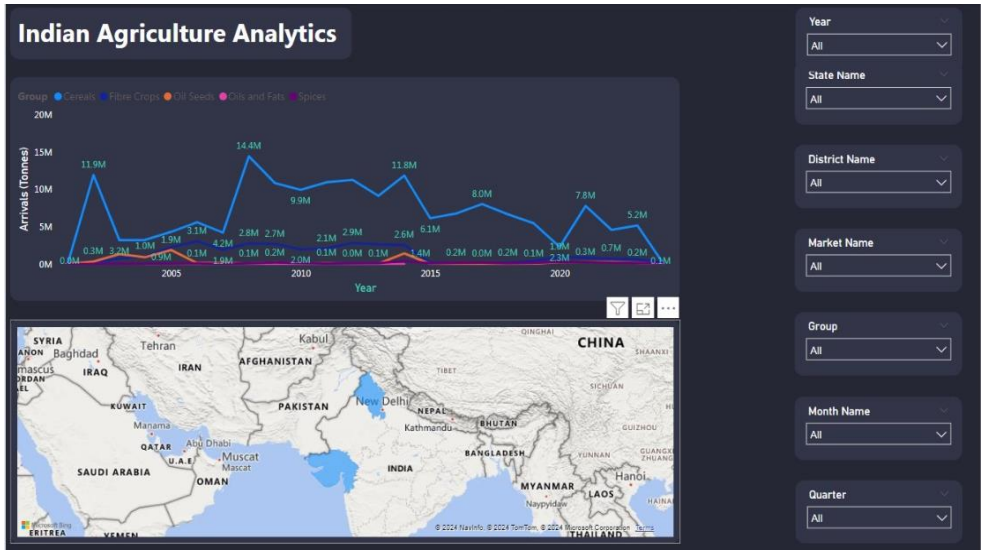
- Build data table model relationships



Model View

4. Creating Visualizations





LAYOUT

- Alignment
- Order
- Proximity
- Space
- Sorting
- No clutter

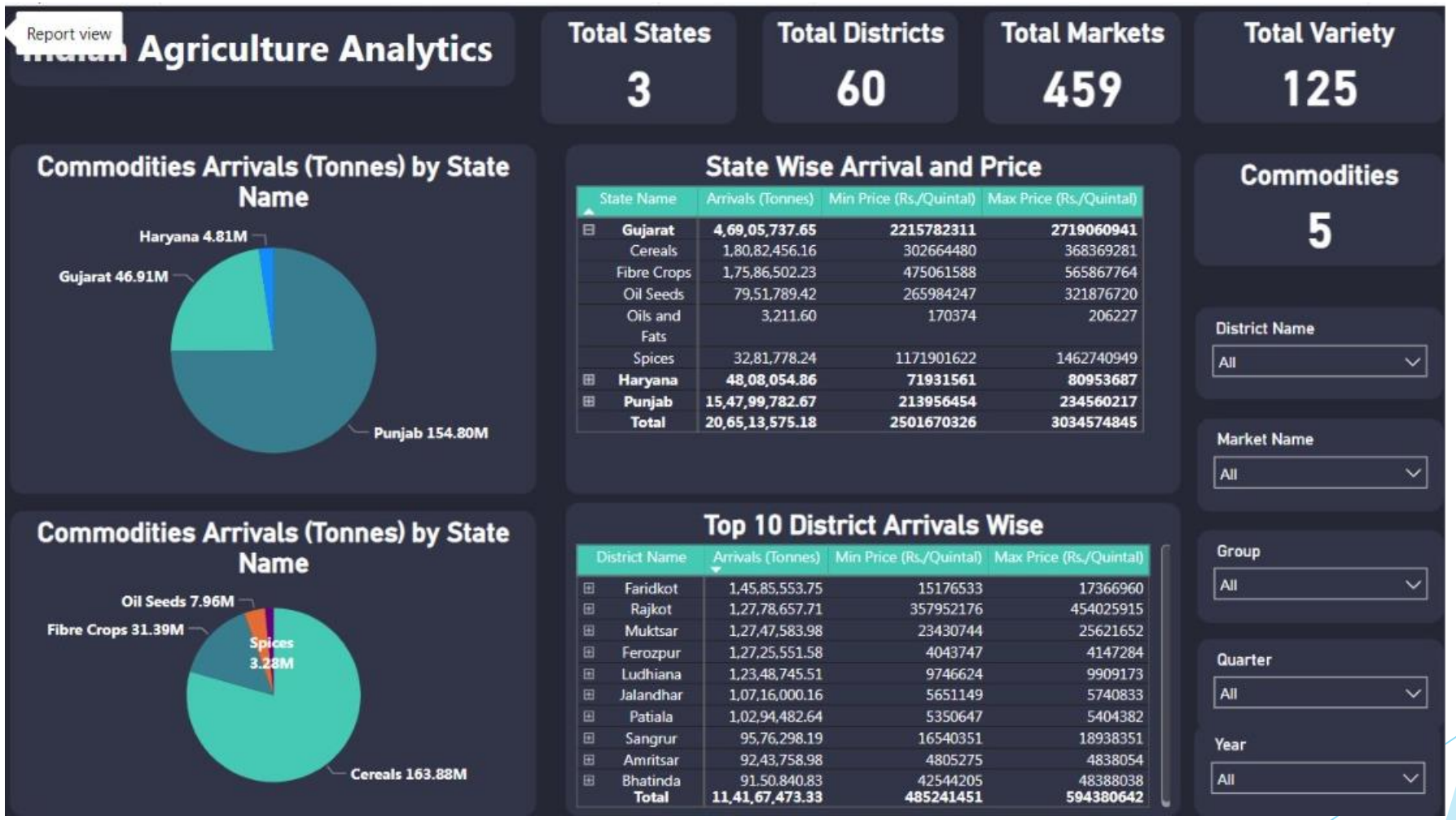
CLARITY

- Someone without prior knowledge can understand the report without any explanation
- Focus on most important element
- Change ‘left-right and top-down’ by adding cues like labels, shapes, borders, size, and colour

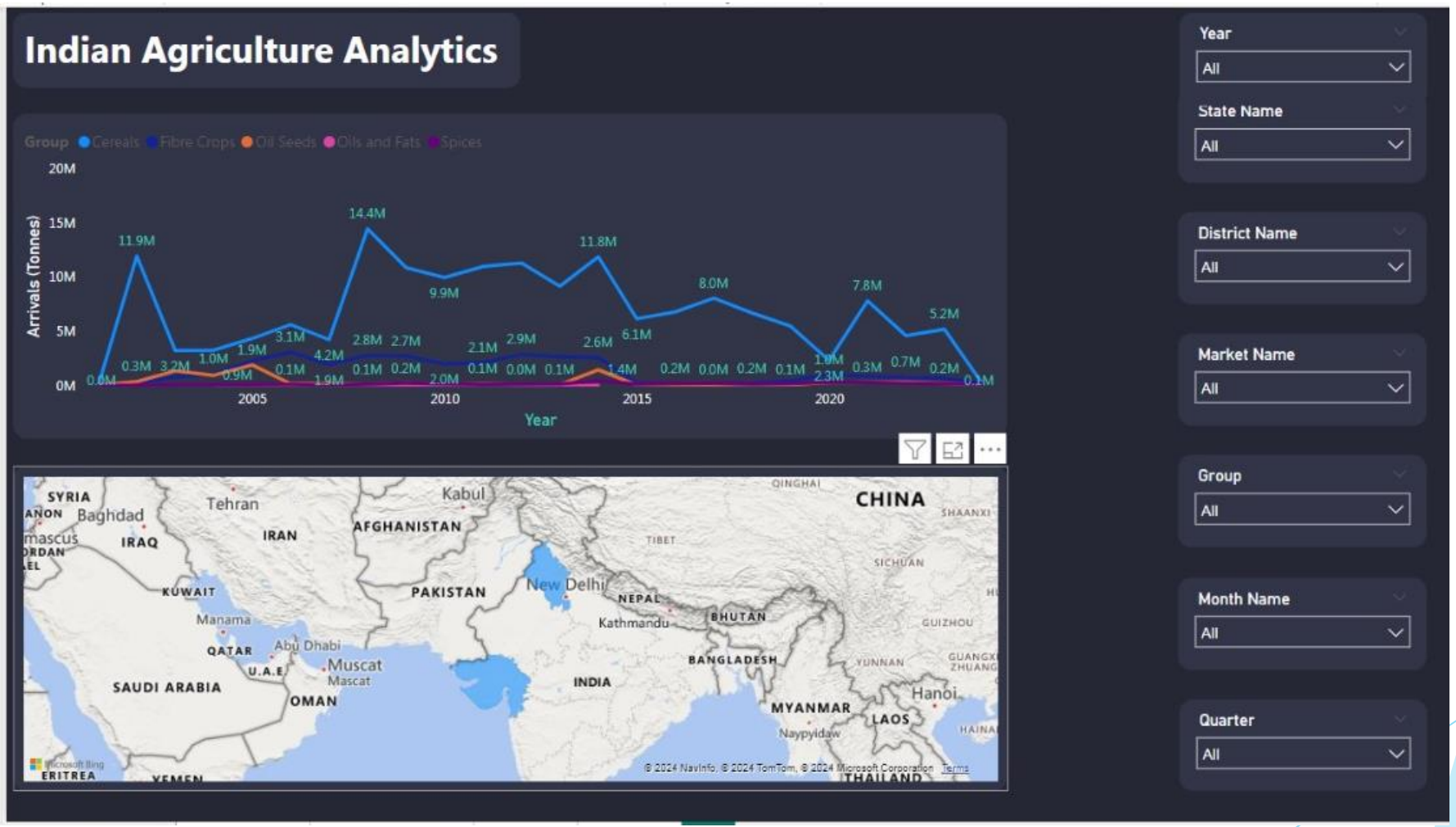
AESTHETICS

- Meet a business need
- Some ‘beauty’ is required - emotions kick in first!
- Create a theme or look
- Support, don’t detract
- Apply best practices

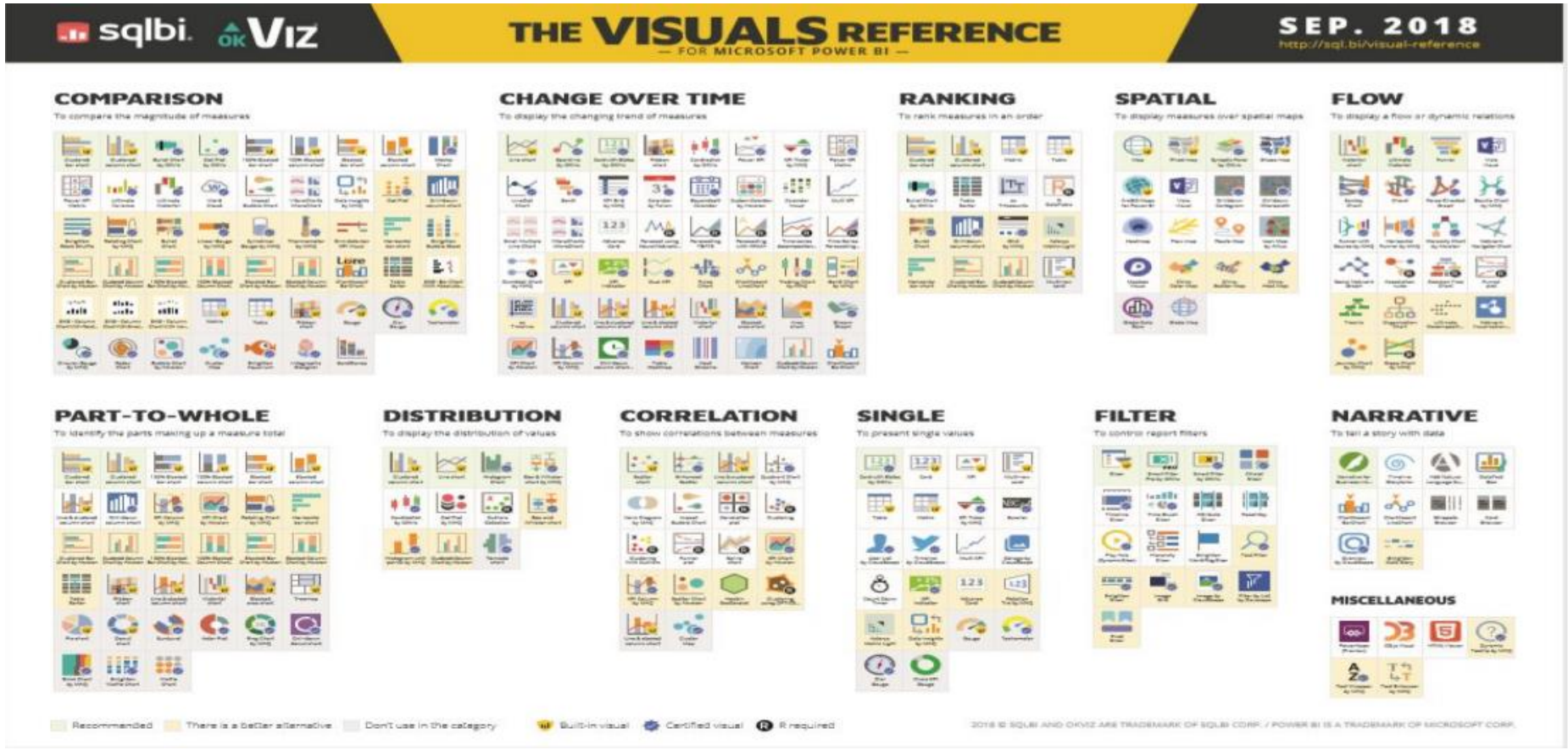
Final Report View Of My Project



Detail Analysis View



Guide To Chart Selection



Resources

Continuous practice helps you develop your PowerBI skills and preparation is key for your Data analytics position. Find below some PowerBI resources for your use

Guru99:

https://www.guru99.com/ power-bi-interview-questions.html

Edureka:

https://www.edureka.co/blog/interv i ew-questions/power-bi-interview-q uestions/

Powerbidocs:

https://powerbidocs.com/interview questions-and-answers/ Question-and-answers/

Microsoft Learn:

https://learn.microsoft.com/en-us/power-bi/report-server/get-started

Online Coureses

Introduction to Power BI Course | DataCamp

Thank You

For Your Attention

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