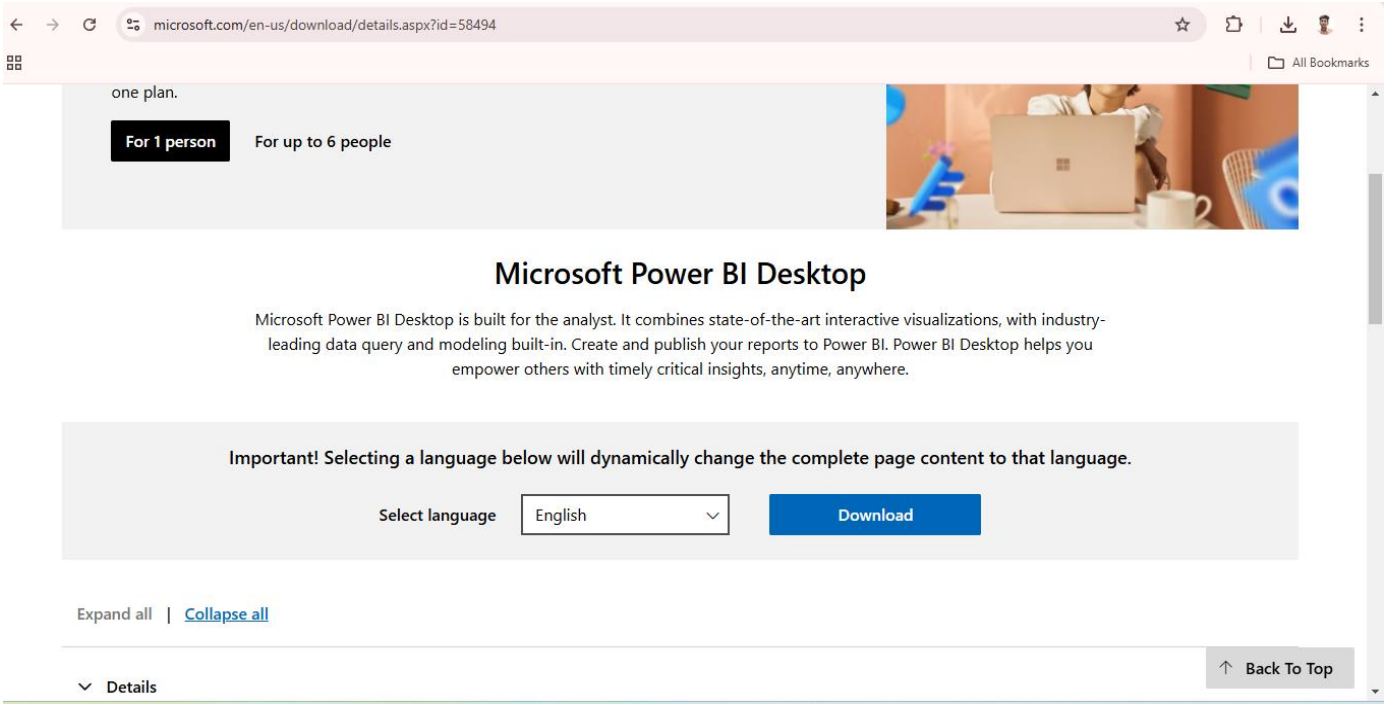
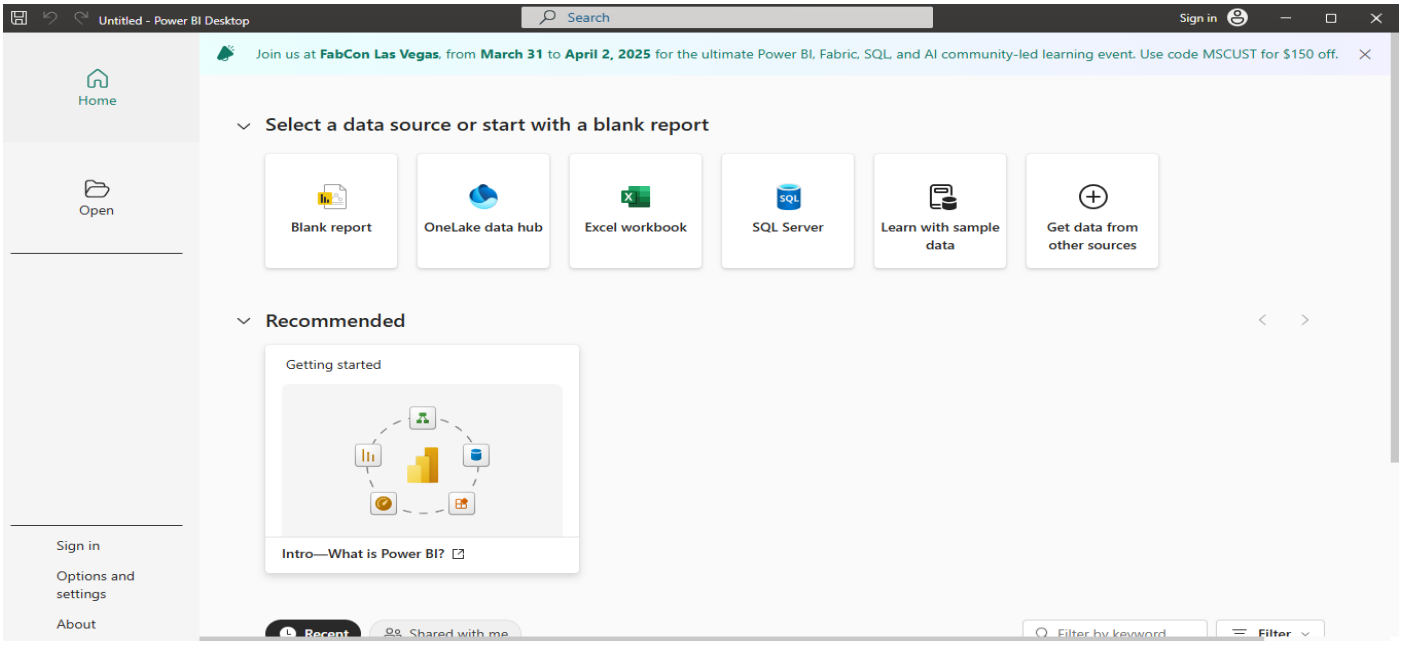
# INTRODUCTION TO POWER BI

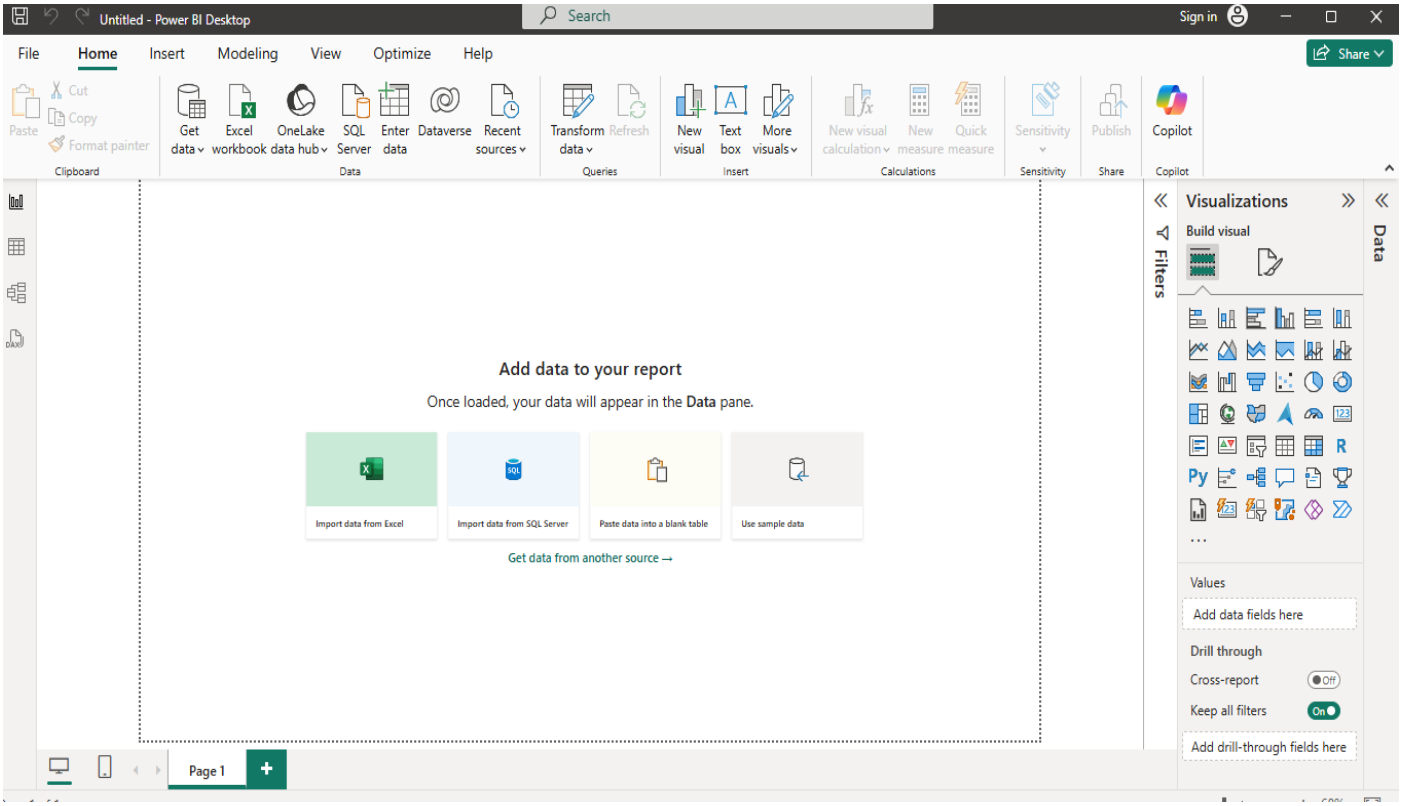
**Step 1:** Go to Microsoft Power BI Desktop website , Select the Language and Click on Download . After Downloading, install the Power BI Desktop.



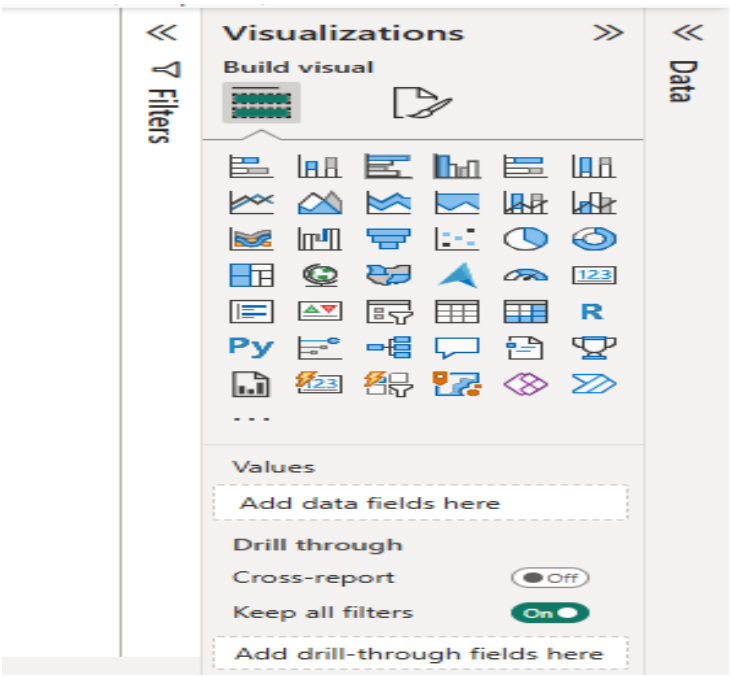

**Step 2:** After successful installation , Power BI interface will be displayed. Click on Blank report.



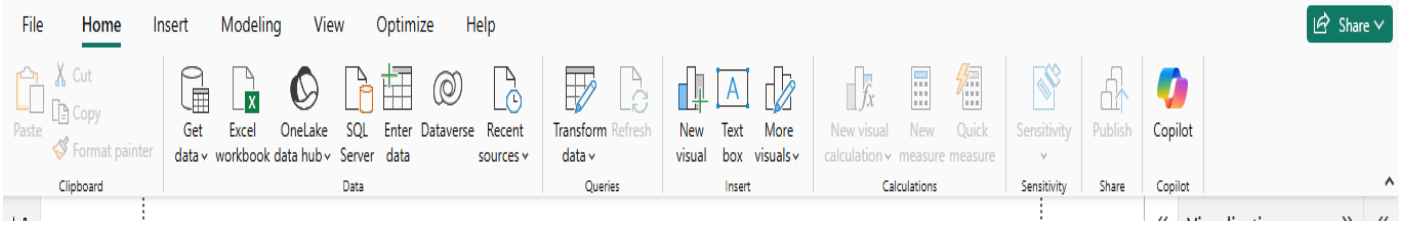

**Step 3 :** After clicking Blank report . You will get following interface where you should add the data from different sources such as from Excel , from SQL server , from sample data.



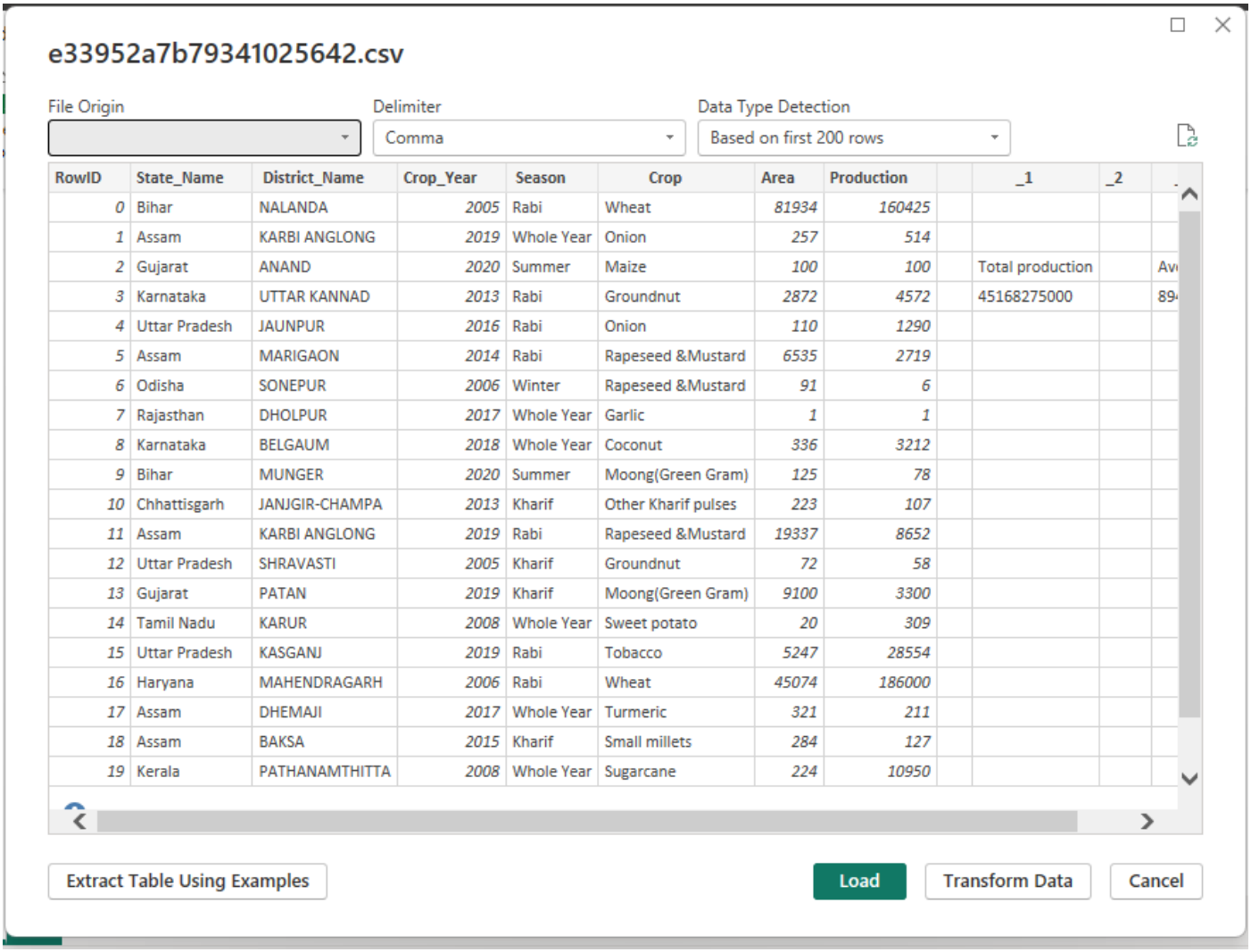

Here , Right side space is called Visualization where all visualization tools available and using them we can easily build visuals of our data .




On top , there are different tools where to perform  data extraction , data cleaning , data modelling .

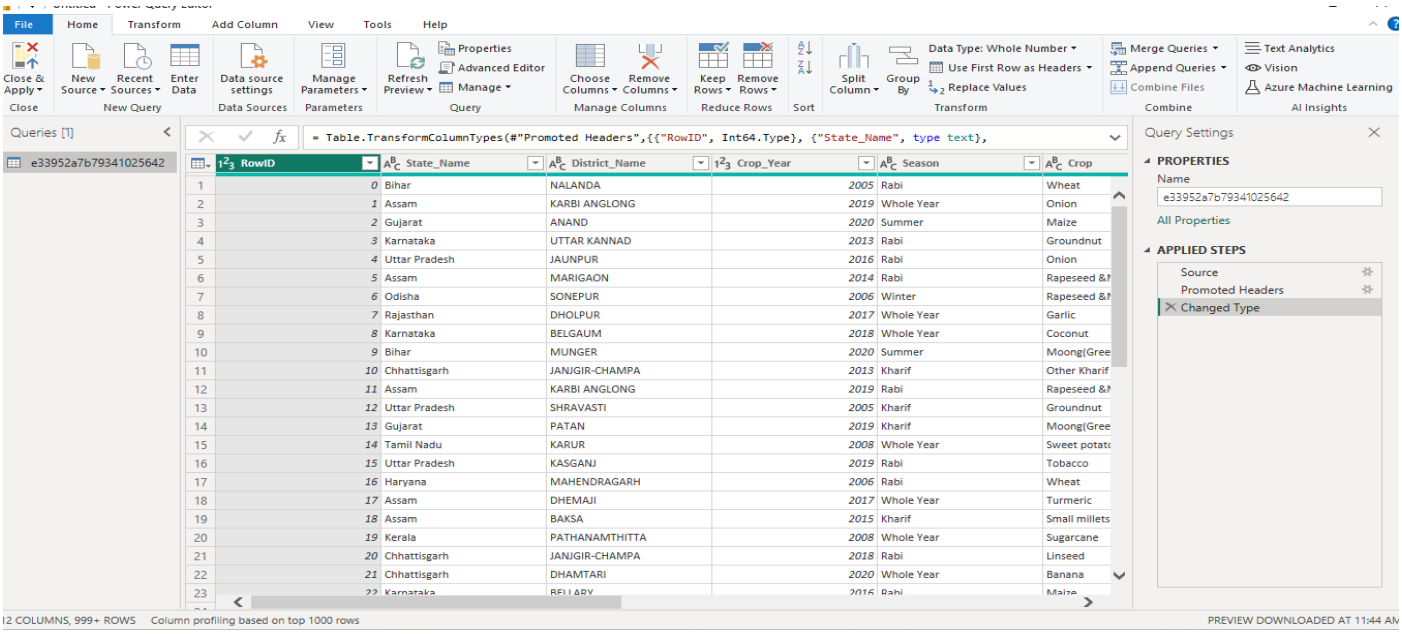


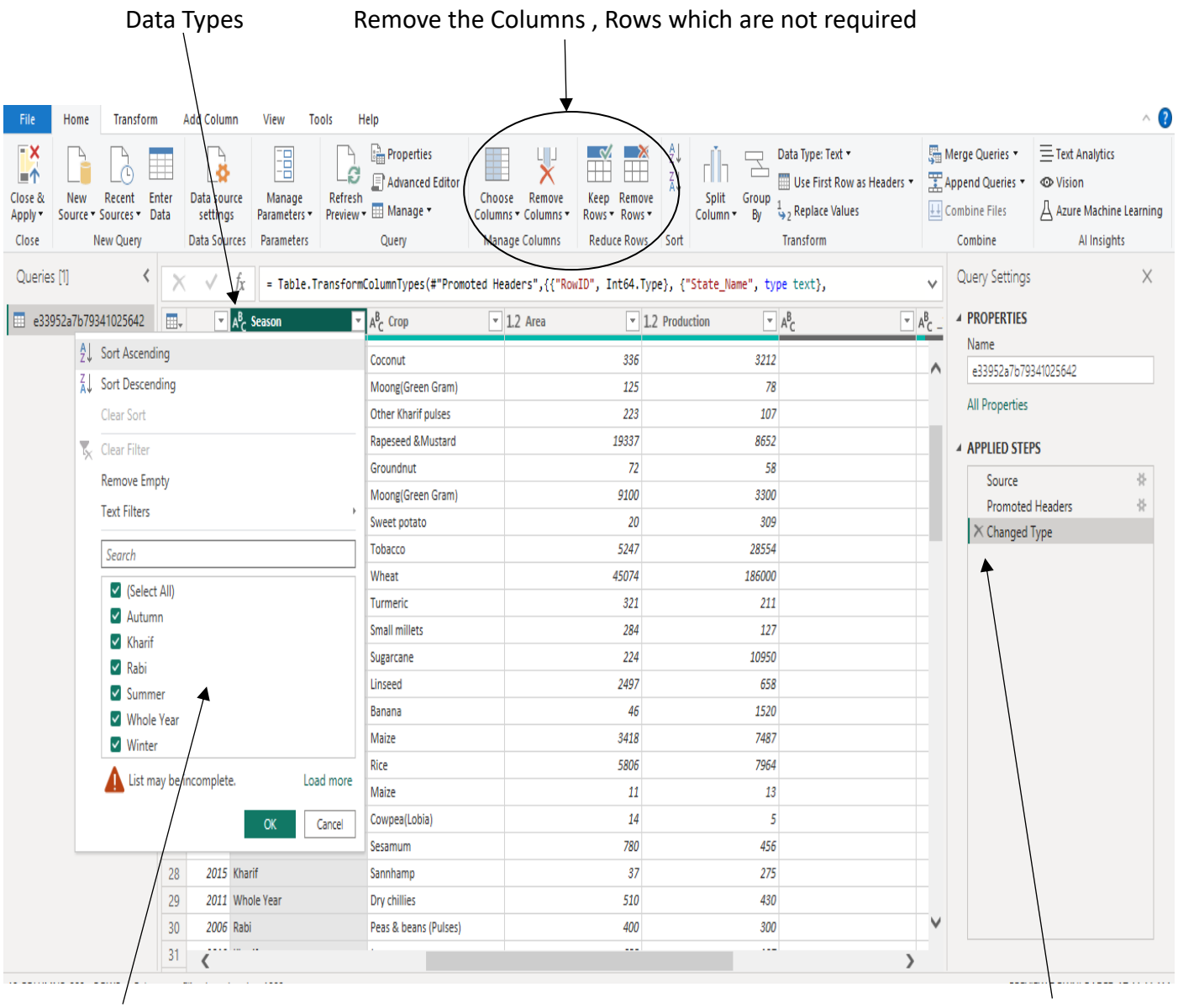
**Step 4:** Import the data from different sources .after importing data (.csv) , data will displayed like below.




| RowID | State_Name | District_Name | Crop_Year | Season | Crop | Area | Production | _1 | _2 |
|---|---|---|---|---|---|---|---|---|---|
| 0 | Bihar | NALANDA | 2005 | Rabi | Wheat | 81934 | 160425 | | |
| 1 | Assam | KARBI ANGLONG | 2019 | Whole Year | Onion | 257 | 514 | | |
| 2 | Gujarat | ANAND | 2020 | Summer | Maize | 100 | 100 | Total production | |
| 3 | Karnataka | UTTAR KANNAD | 2013 | Rabi | Groundnut | 2872 | 4572 | 45168275000 | |
| 4 | Uttar Pradesh | JAUNPUR | 2016 | Rabi | Onion | 110 | 1290 | | |
| 5 | Assam | MARIGAON | 2014 | Rabi | Rapeseed &Mustard | 6535 | 2719 | | |
| 6 | Odisha | SONEPUR | 2006 | Winter | Rapeseed &Mustard | 91 | 6 | | |
| 7 | Rajasthan | DHOLPUR | 2017 | Whole Year | Garlic | 1 | 1 | | |
| 8 | Karnataka | BELGAUM | 2018 | Whole Year | Coconut | 336 | 3212 | | |
| 9 | Bihar | MUNGER | 2020 | Summer | Moong(Green Gram) | 125 | 78 | | |
| 10 | Chhattisgarh | JANJGIR-CHAMPA | 2013 | Kharif | Other Kharif pulses | 223 | 107 | | |
| 11 | Assam | KARBI ANGLONG | 2019 | Rabi | Rapeseed &Mustard | 19337 | 8652 | | |
| 12 | Uttar Pradesh | SHRAVASTI | 2005 | Kharif | Groundnut | 72 | 58 | | |
| 13 | Gujarat | PATAN | 2019 | Kharif | Moong(Green Gram) | 9100 | 3300 | | |
| 14 | Tamil Nadu | KARUR | 2008 | Whole Year | Sweet potato | 20 | 309 | | |
| 15 | Uttar Pradesh | KASGANJ | 2019 | Rabi | Tobacco | 5247 | 28554 | | |
| 16 | Haryana | MAHENDRAGARH | 2006 | Rabi | Wheat | 45074 | 186000 | | |
| 17 | Assam | DHEMAJI | 2017 | Whole Year | Turmeric | 321 | 211 | | |
| 18 | Assam | BAKSA | 2015 | Kharif | Small millets | 284 | 127 | | |
| 19 | Kerala | PATHANAMTHITTA | 2008 | Whole Year | Sugarcane | 224 | 10950 | | |

On bottom right there are three options(Load , Transform data ,cancel) . If there you need to clean the data then click on “Transform Data” . Then you can easily clean the data by removing null values .






**Step 5 :** After done with all transformation then clicking on "Close & Apply" .The all transformations will be applied and the data will be loaded on Dashboard.

In the left-hand navigation pane, there are four symbols such as Report view , Table View , Model View , DAX query view .

**Report View :** This is the main interface where you build and design your visuals. It's the canvas for creating dashboards and reports using visualizations. Drag and drop fields to create visualizations like bar charts, pie charts, tables, and more. Format and customize visuals with colors, filters, and styles.

**Table View :** Displays the raw data from your connected datasets, allowing you to inspect and explore tables. View data in table format for all imported and transformed data. Apply row -level filters to verify data correctness.

**Model View** : Focuses on managing the relationships between tables in your dataset. Define, modify, or delete relationships using drag-and-drop. Set table properties like cardinality (one-to-many, many-to-many) and cross-filter directions.

**DAX Query View :** Used for writing and testing DAX (Data Analysis Expressions) formulas, which help create calculated fields, measures, and tables. Write custom DAX queries to manipulate or analyze data. Perform advanced calculations, aggregations, and dynamic filtering.