EXHAUSTIVE ANALYSIS OF INDIAN AGRICULTURE USING POWER BI

Introduction: The "Exhaustive Analysis of Indian Agriculture Using Power BI" leverages the tool's capabilities to transform agricultural data into actionable insights. By utilizing Power Query for data extraction and transformation, data modelling to establish relationships, and DAX for custom calculations, Power BI enables in-depth analysis. Its powerful visualizations, predictive analytics, and AI insights help forecast trends like crop yield, weather impact, and market prices. Additionally, the Power BI Service facilitates real-time collaboration, empowering stakeholders to make informed decisions that enhance agricultural productivity and sustainability in India.

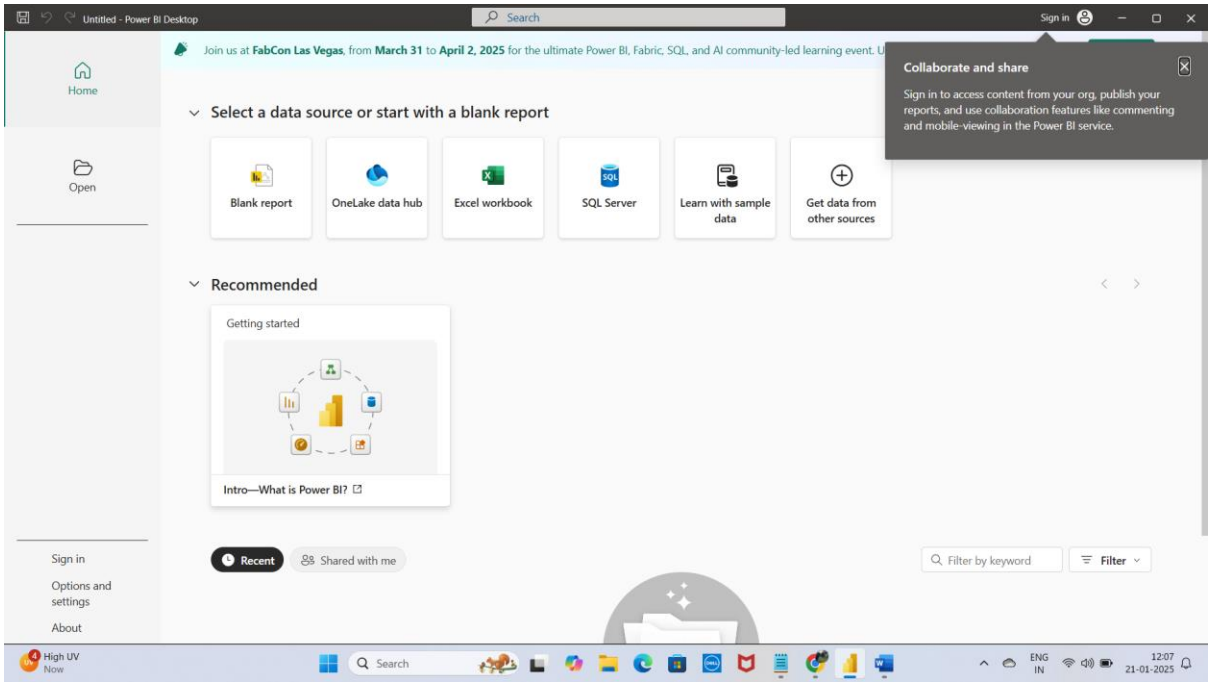
STEPS TO DOWNLOAD MICROSOFT POWER BI

Step 1 -> click on to this link and download the application according to system specifications

Link -> https://www.microsoft.com/en-us/power-platform/products/power-bi/

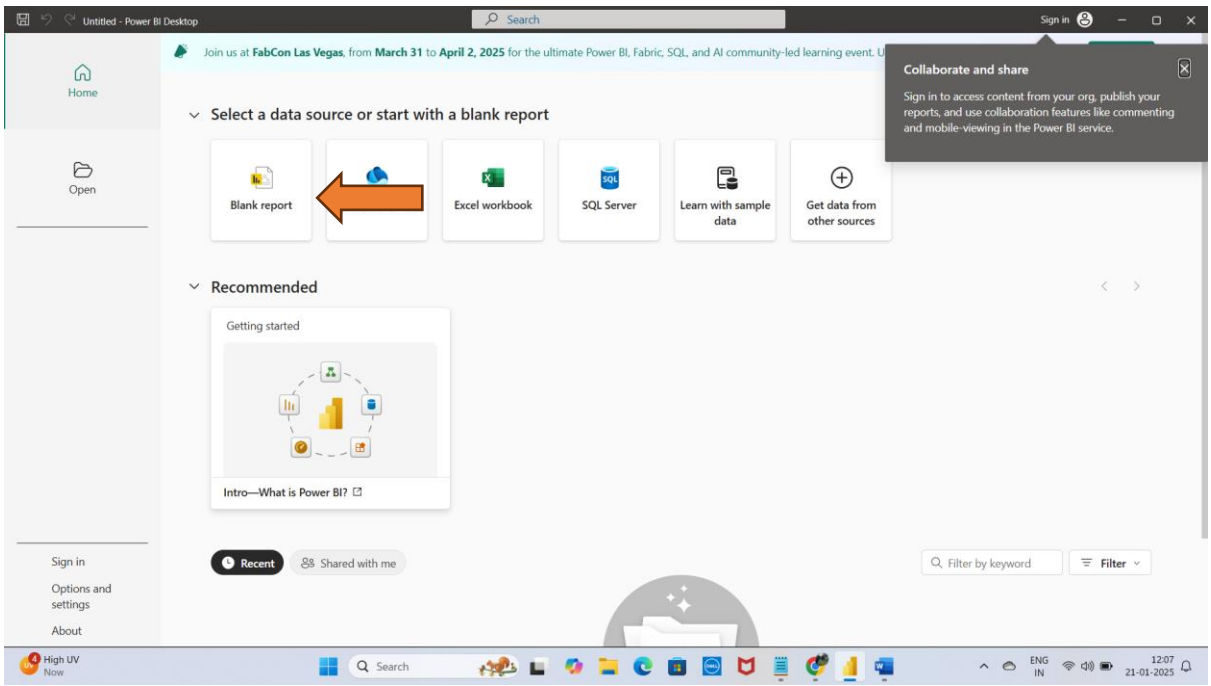
Step 2 -> Download and install the give next-> next-> and finish the process

Step 3 -> Open **Microsoft power bi** application

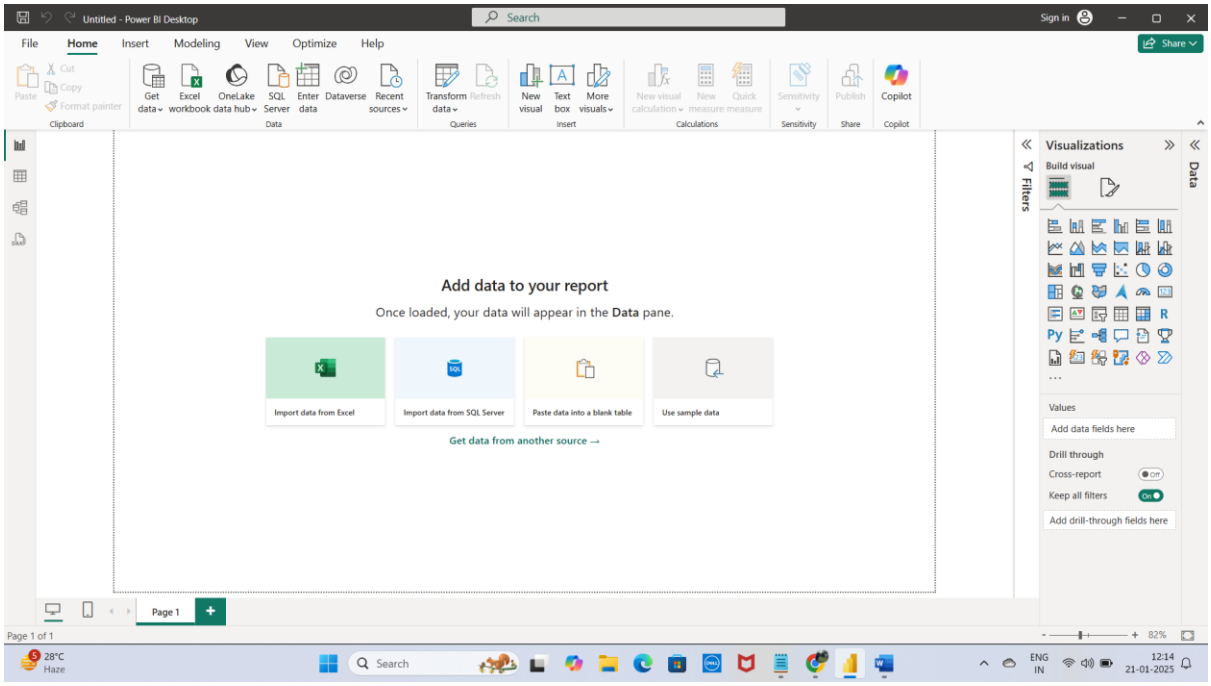


STEPS TO OPEN THE NEW PROJECT

⇨ Click on to the blank project



⇨ An untitled power bi window is been opened



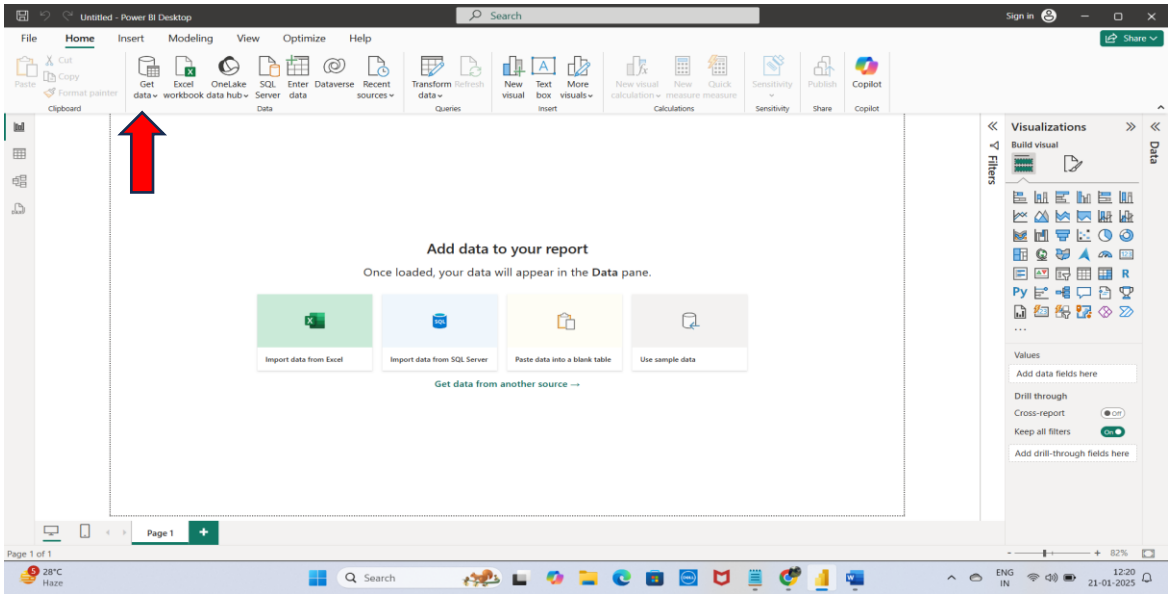
<u>It is also called as canvas or power bi desktop.</u>

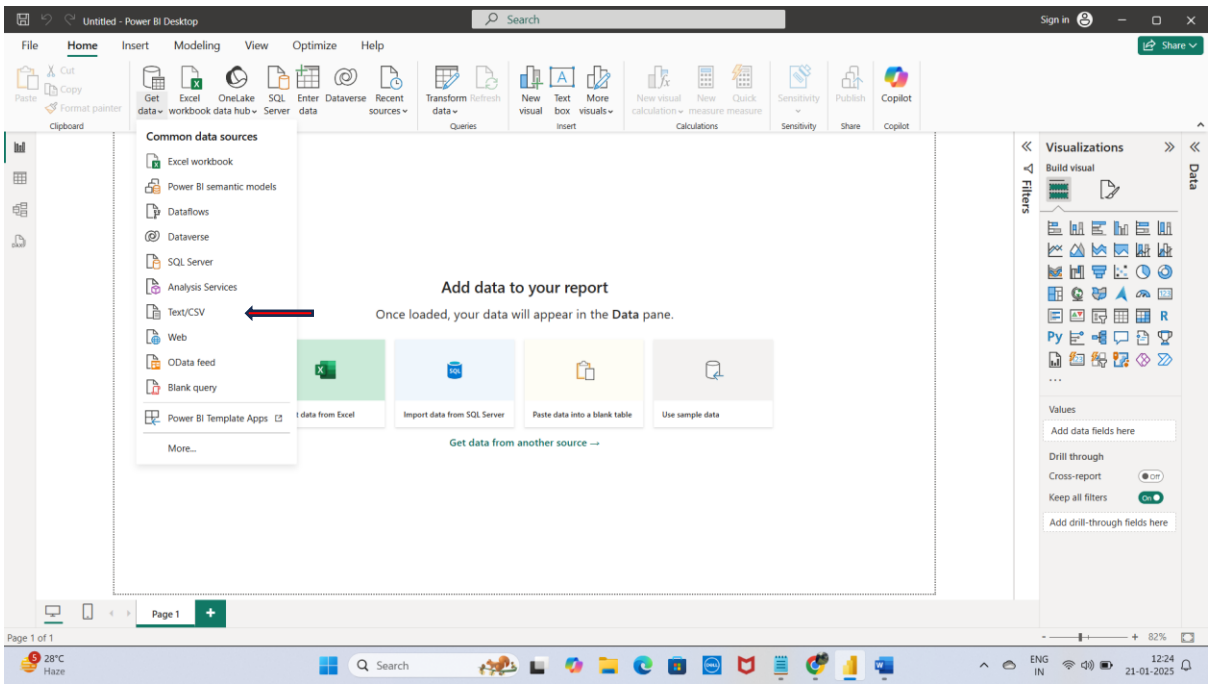
<u>EXTRACTING THE DATA</u>

⇨ Extract - pull data from the data source : excel,csv,text,database file

Steps to extract the data

⇨ Go to home tab
⇨ Click on the get data tab
⇨ Download the required dataset
⇨ Add the data set to this tab



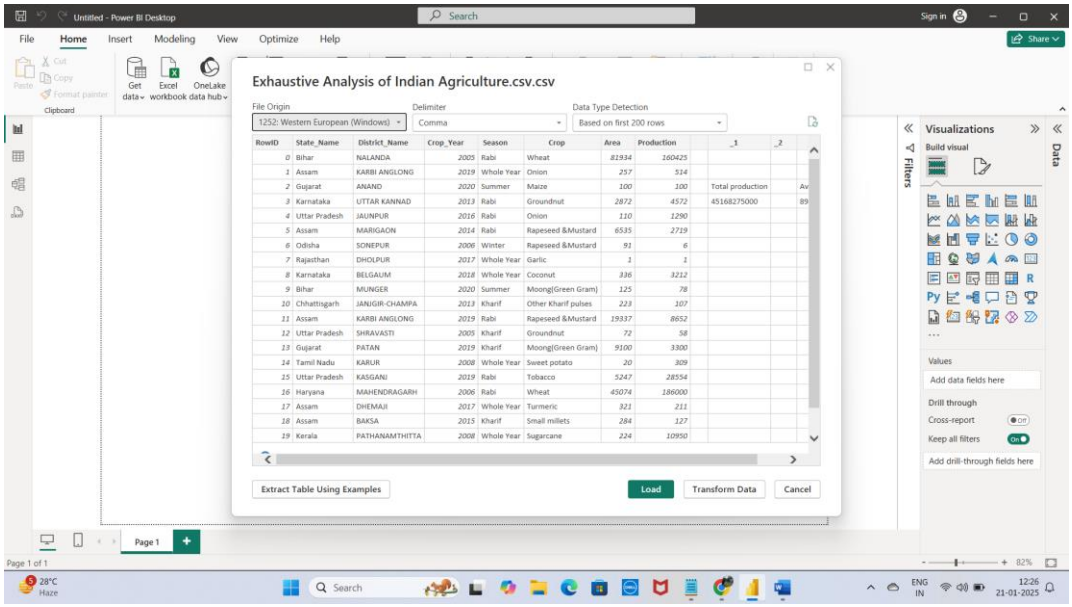


⇨ The below mentioned screen is been displayed

⇨ It contains the three types of button at the end

1. Load
2. Transform data
3. Cancel

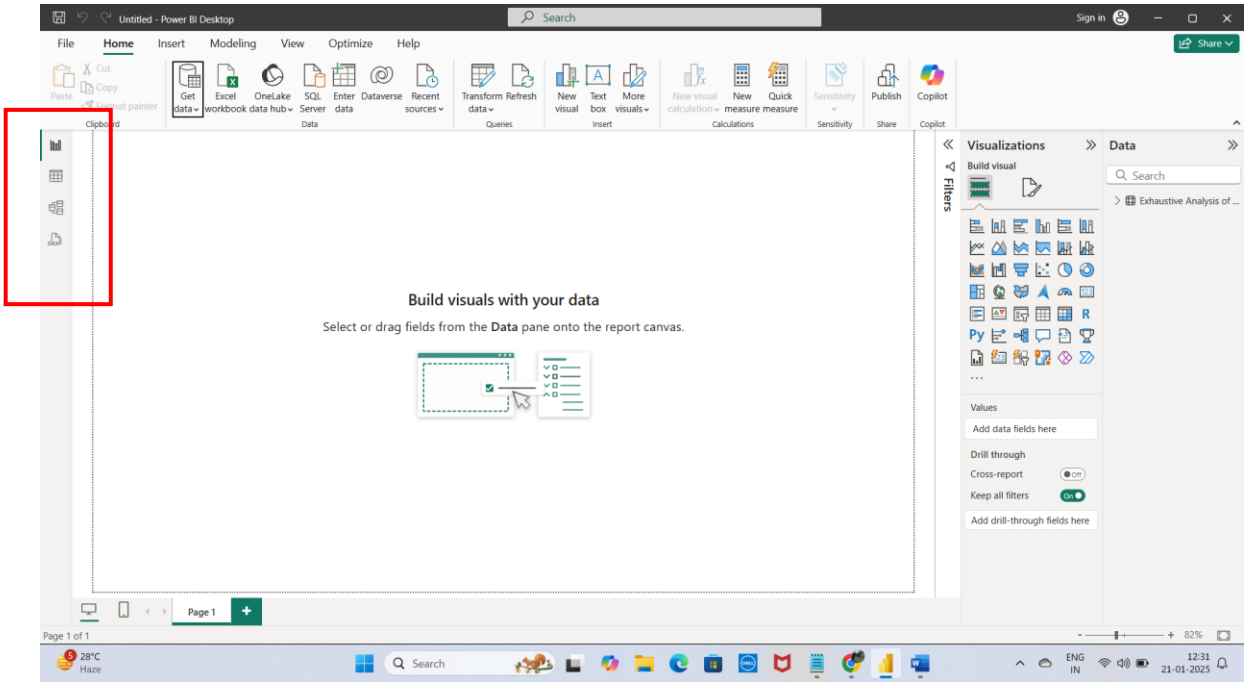
Lets us explore in detail,



⇨ LOAD -> when your is cleaned

⇨ TRANSFORM -> when you want to process the data

Load the file the below mentioned screen is been displayed



There are four types of view in the left of the screen such as,

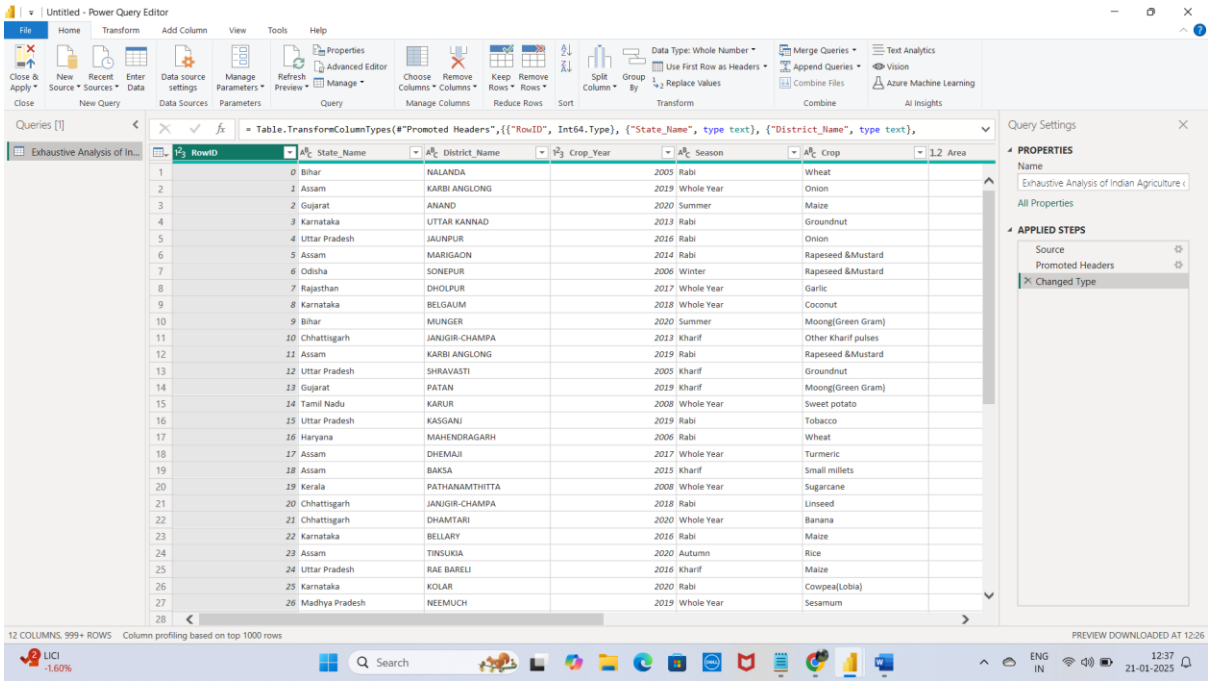
⇨ report view -> all the visualization is seened

⇨ table view-> data is been seen

⇨ Model view-> two different excel file joining and creating the relationship between them

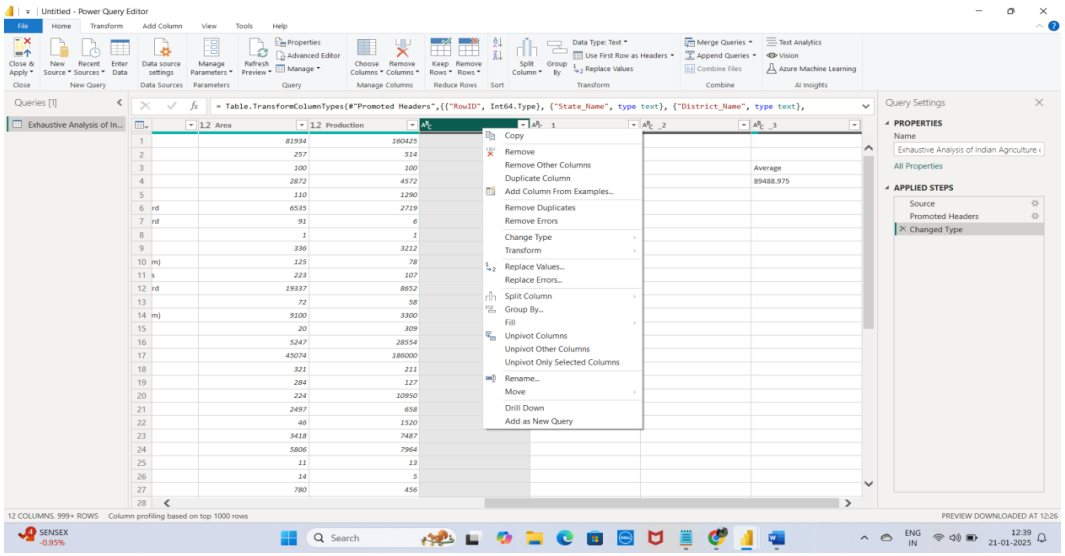
Transform data :

Click on that tab to process the data

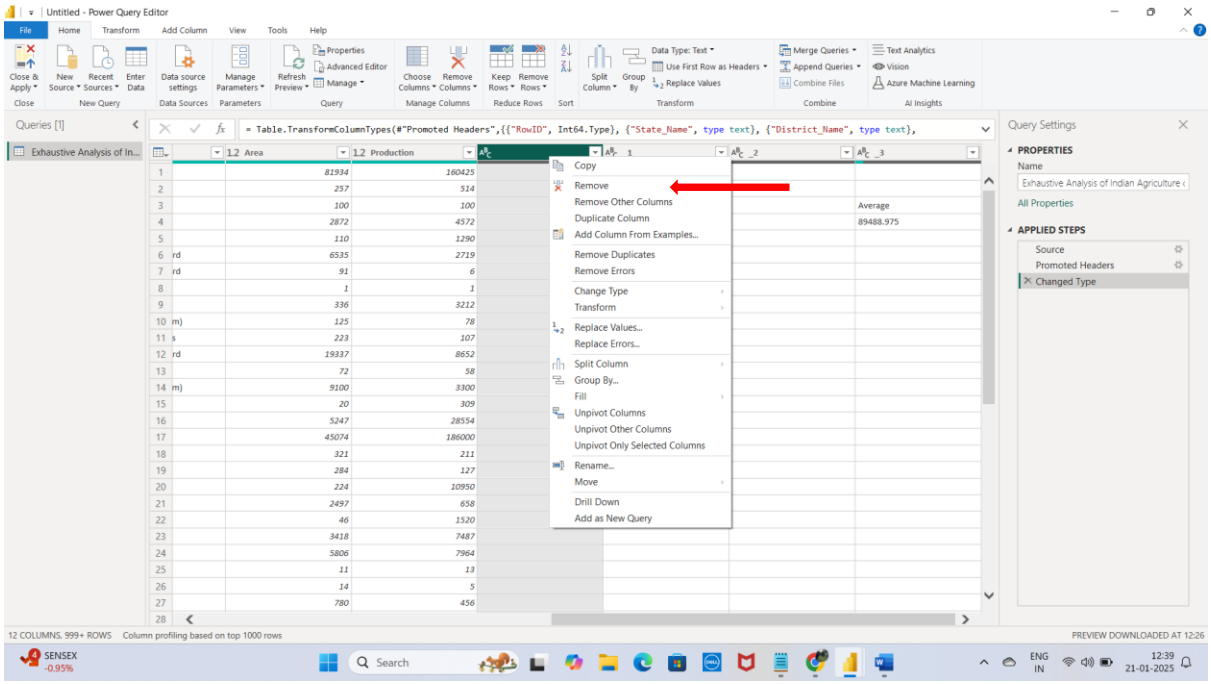


STEPS TO REMOVE THE BLANK COLUMN

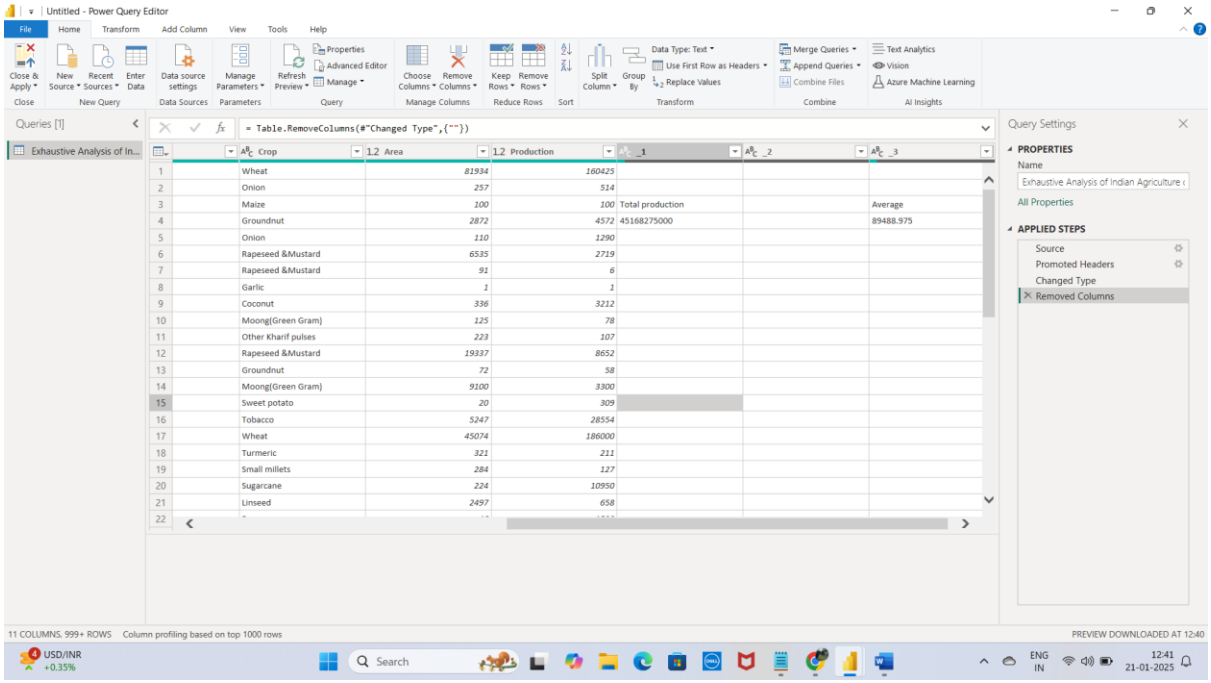
⇨ **Right click on the blank column**



⇨ Click on the remove to remove the column

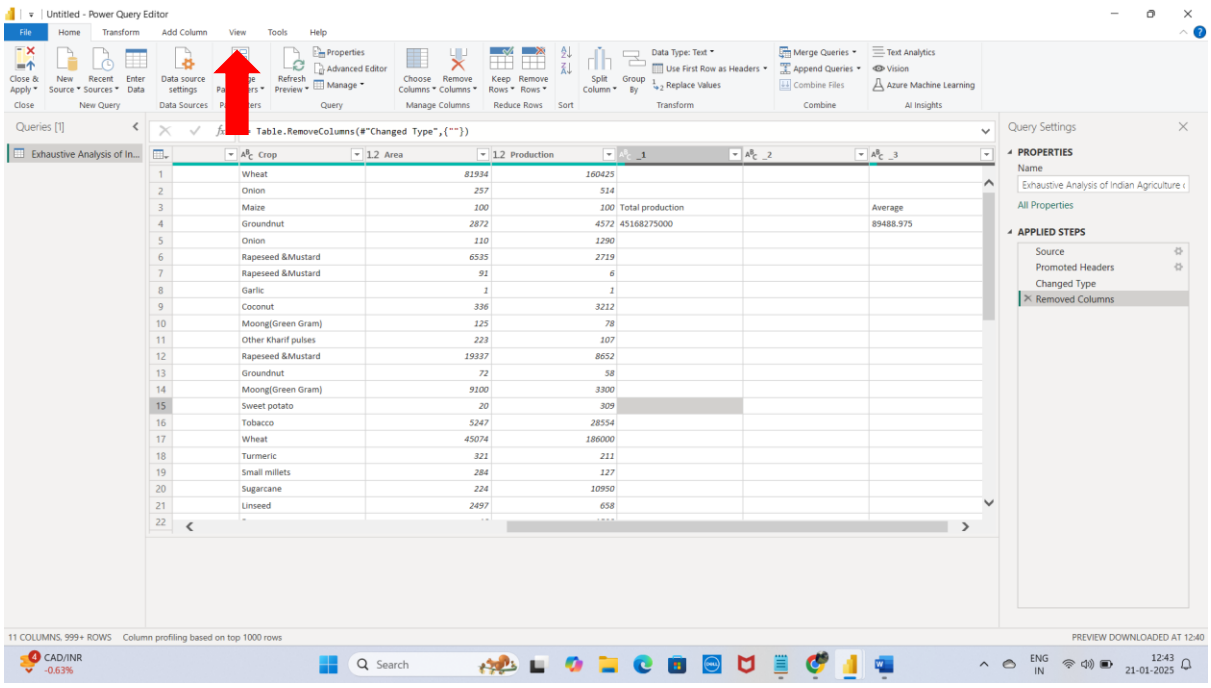


⇨ The blank column is been removed

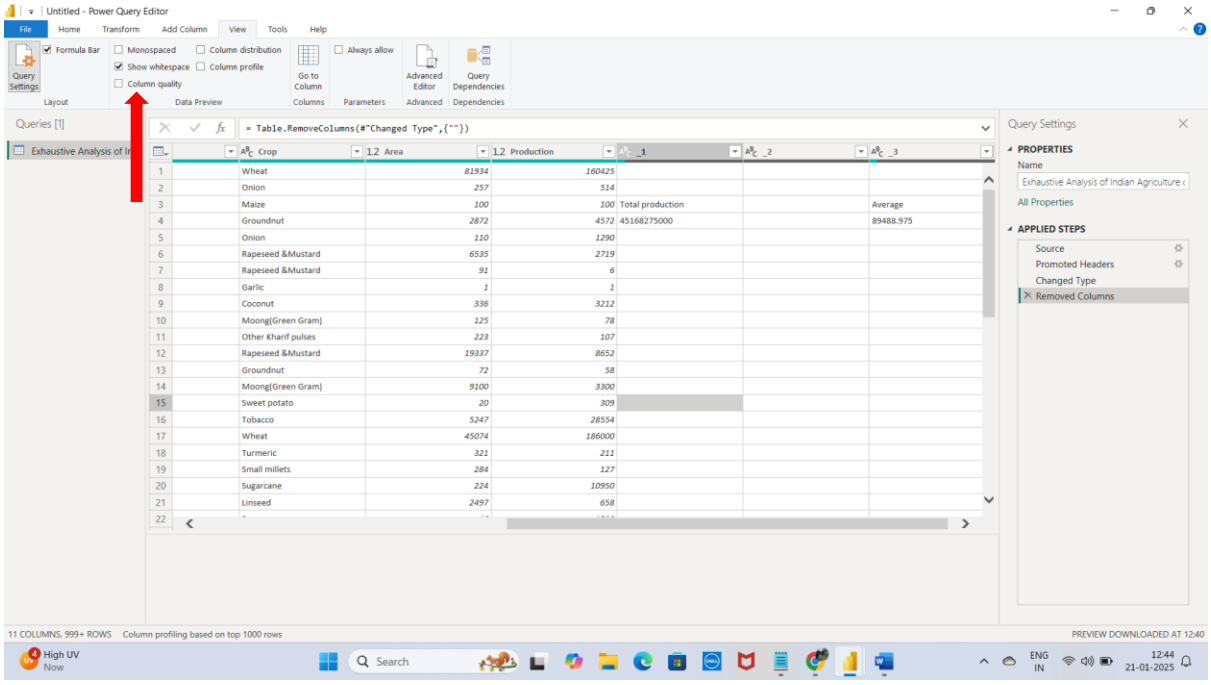


STEPS TO CHECK THE NULL VALUES IN THE DATA OR TO CHECK THE QUALITY OF THE DATA

⇨ Click on the view tab on the top



⇨ After that click on to the column quality



⇨ After that the quality analysis of the give data set is been displayed

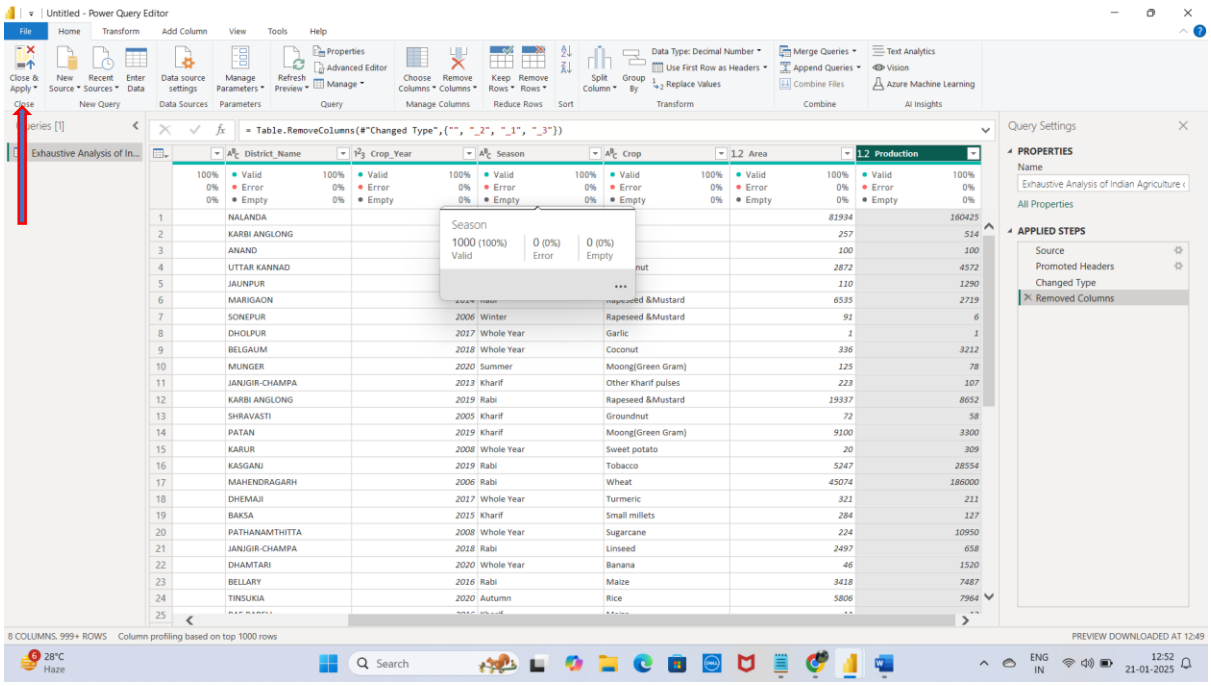
Steps to remove duplicates

⇨ remove rows -> remove duplicates

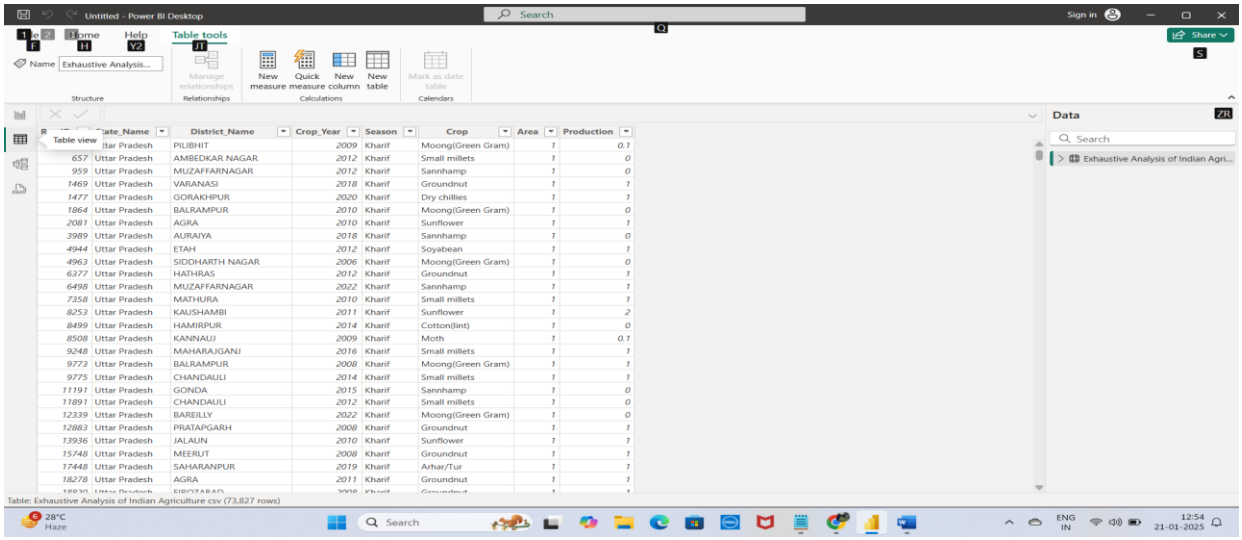
STEPS TO SAVE THE DATASET IN POWERBI AND APPLY IT TO IT

⇨ Click on the home tab

⇨ Click on to the close and apply tab



⇨ Go to the table view changes is been applied in the power bi dashboard



State_Name	District_Name	Crop_Year	Season	Crop	Area	Production
Uttar Pradesh	PILIBHIT	2009	Kharif	Moong(Green Gram)	1	0.1
Uttar Pradesh	AMBEDKAR NAGAR	2012	Kharif	Small millets	1	0
Uttar Pradesh	MUZAFFARNAGAR	2012	Kharif	Sannhamp	1	0
Uttar Pradesh	VARANASI	2018	Kharif	Groundnut	1	1
Uttar Pradesh	GORAKHPUR	2020	Kharif	Dry chillies	1	1
Uttar Pradesh	BALRAMPUR	2010	Kharif	Moong(Green Gram)	1	0
Uttar Pradesh	AGRA	2010	Kharif	Sunflower	1	1
Uttar Pradesh	AURAIYA	2018	Kharif	Sannhamp	1	0
Uttar Pradesh	ETAH	2012	Kharif	Soyabean	1	1
Uttar Pradesh	SIDDHARTH NAGAR	2006	Kharif	Moong(Green Gram)	1	0
Uttar Pradesh	HATHRAS	2012	Kharif	Groundnut	1	1
Uttar Pradesh	MUZAFFARNAGAR	2022	Kharif	Sannhamp	1	1
Uttar Pradesh	MATHURA	2010	Kharif	Small millets	1	1
Uttar Pradesh	KAUSHAMBI	2011	Kharif	Sunflower	1	2
Uttar Pradesh	HAMIRPUR	2014	Kharif	Cotton(lint)	1	0
Uttar Pradesh	KANNAUJ	2009	Kharif	Moth	1	0.1
Uttar Pradesh	MAHARAJGANJ	2016	Kharif	Small millets	1	1
Uttar Pradesh	BALRAMPUR	2008	Kharif	Moong(Green Gram)	1	1
Uttar Pradesh	CHANDAULI	2014	Kharif	Small millets	1	1
Uttar Pradesh	GONDA	2015	Kharif	Sannhamp	1	0
Uttar Pradesh	CHANDAULI	2012	Kharif	Small millets	1	0
Uttar Pradesh	BAREILLY	2022	Kharif	Moong(Green Gram)	1	0
Uttar Pradesh	PRATAPGARH	2008	Kharif	Groundnut	1	1
Uttar Pradesh	JALAUN	2010	Kharif	Sunflower	1	1
Uttar Pradesh	MEERUT	2008	Kharif	Groundnut	1	1
Uttar Pradesh	SAHARANPUR	2019	Kharif	Arhar/Tur	1	1
Uttar Pradesh	AGRA	2011	Kharif	Groundnut	1	1