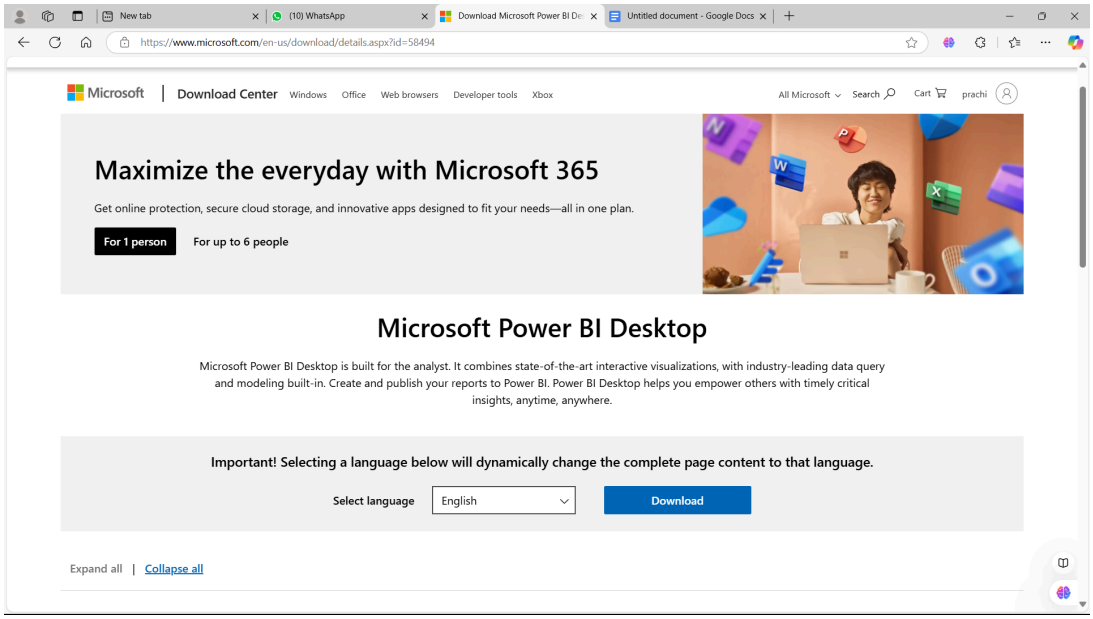
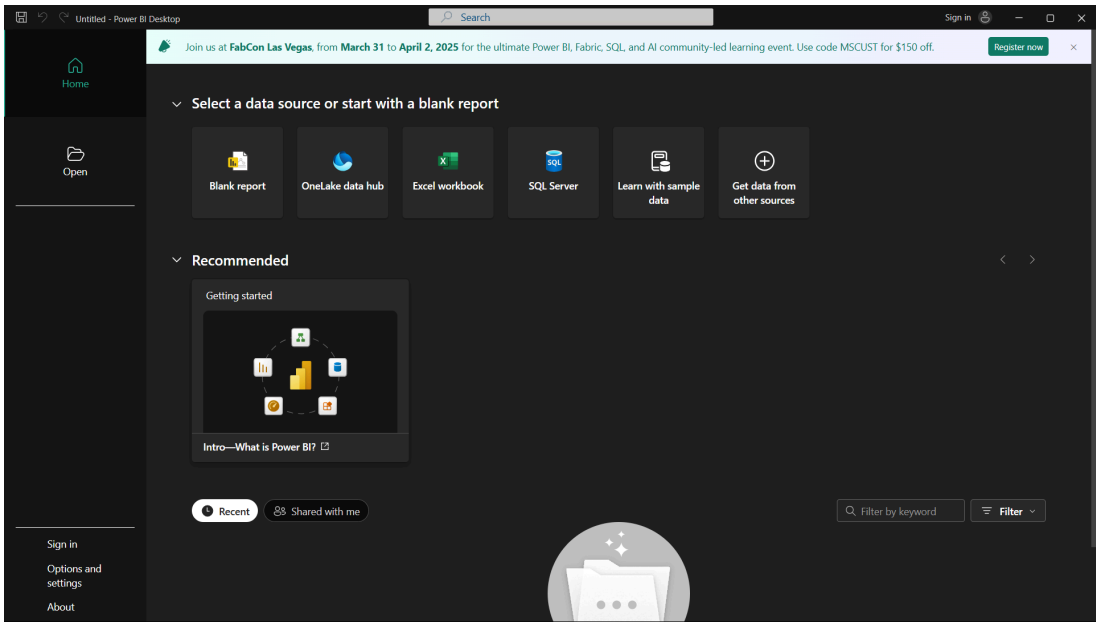
PRACHI PATKAR

TASK 1-Exhaustive Analysis of Indian Agriculture using Power BI

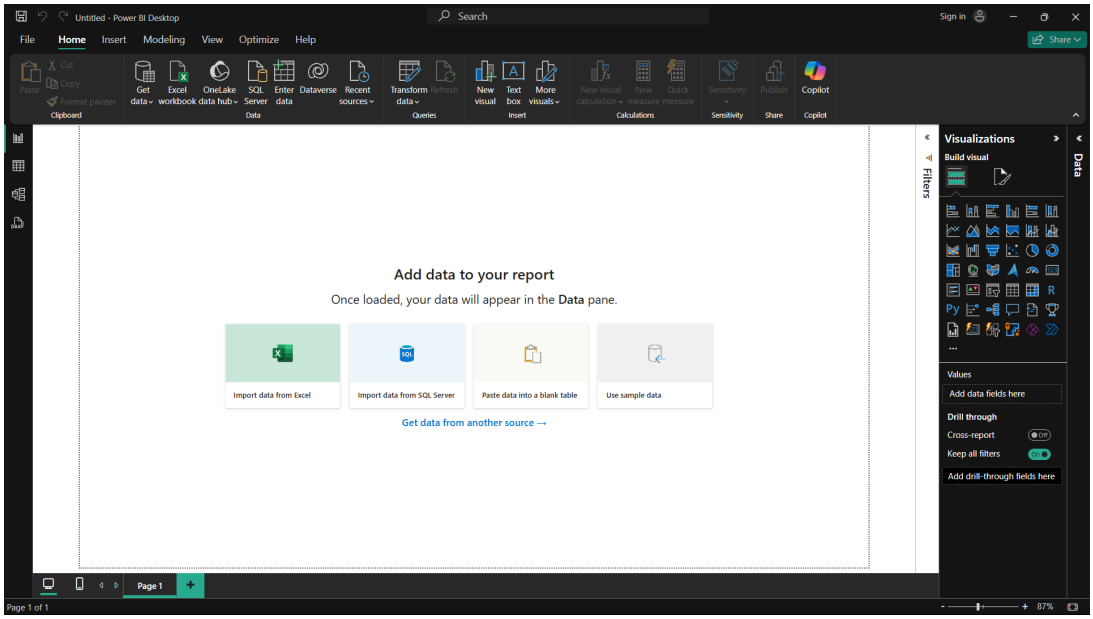
1. Download Power BI from the given link.



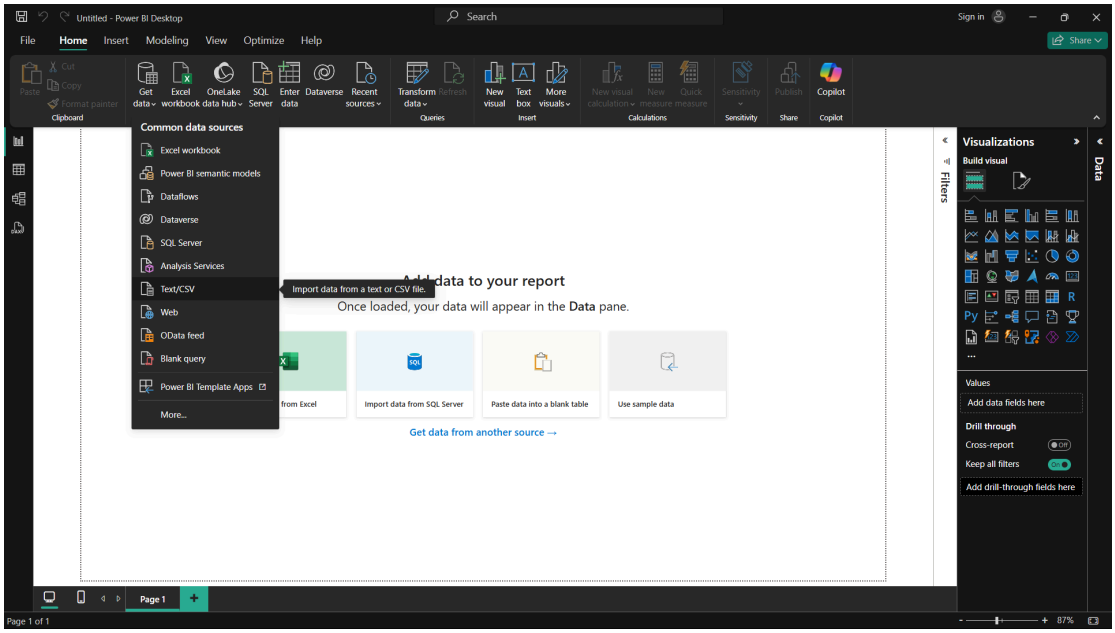
2. Open your Power Bi



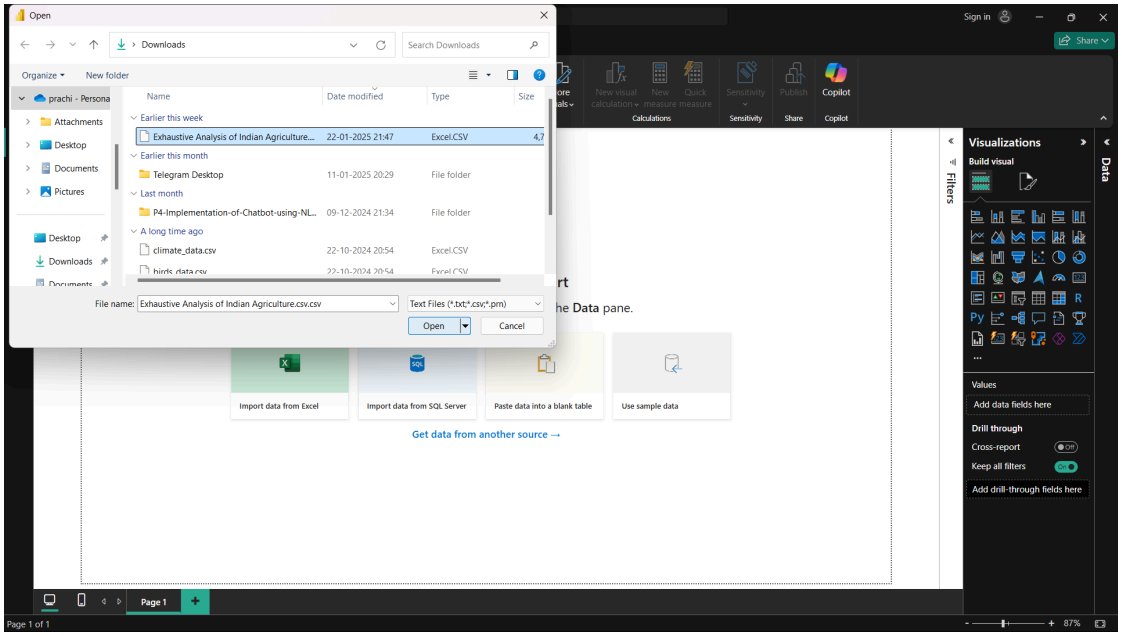
3. Select Blank report-This opened window is our Power BI canvas.



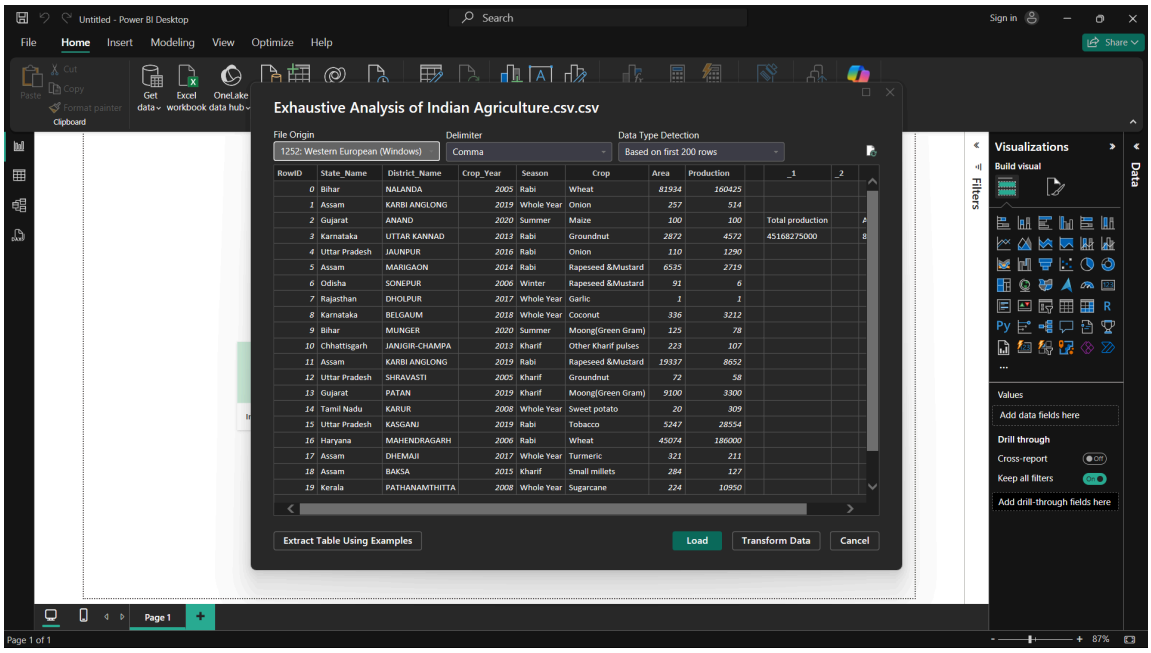
4. Now to extract data we need data set, You can extract this data by visiting the home section and in that Select getdata. You can see multiple options here this options are our data sources .The data which we have now is CSV file, we'll just simply select Text/Csv.



5. Now we'll just extract our dataset file.

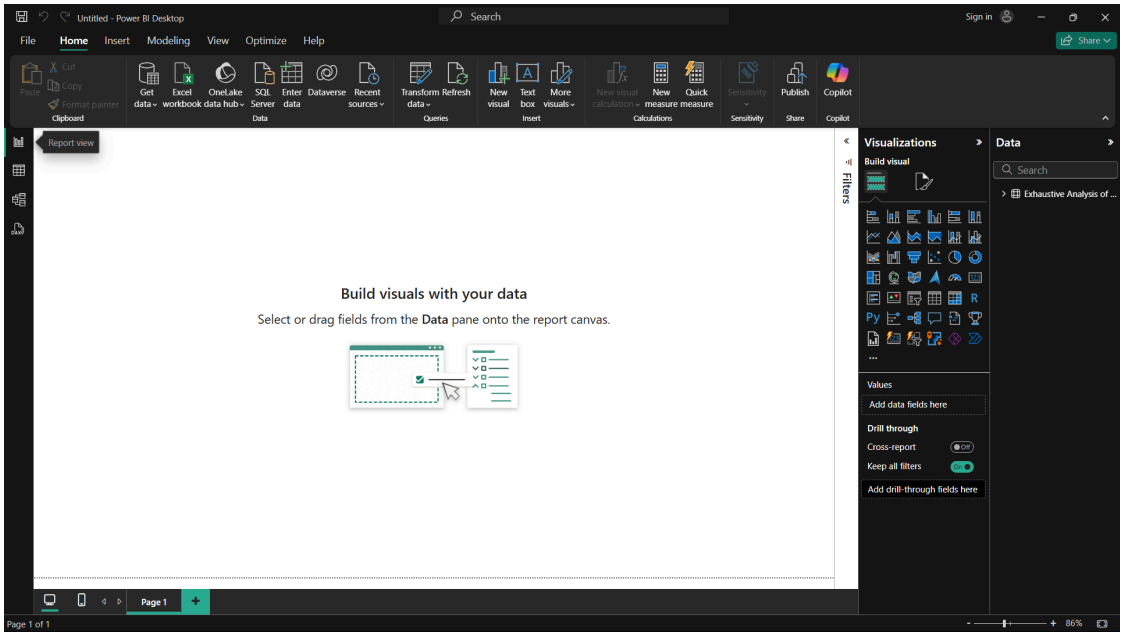


6. This window is overview of our data.

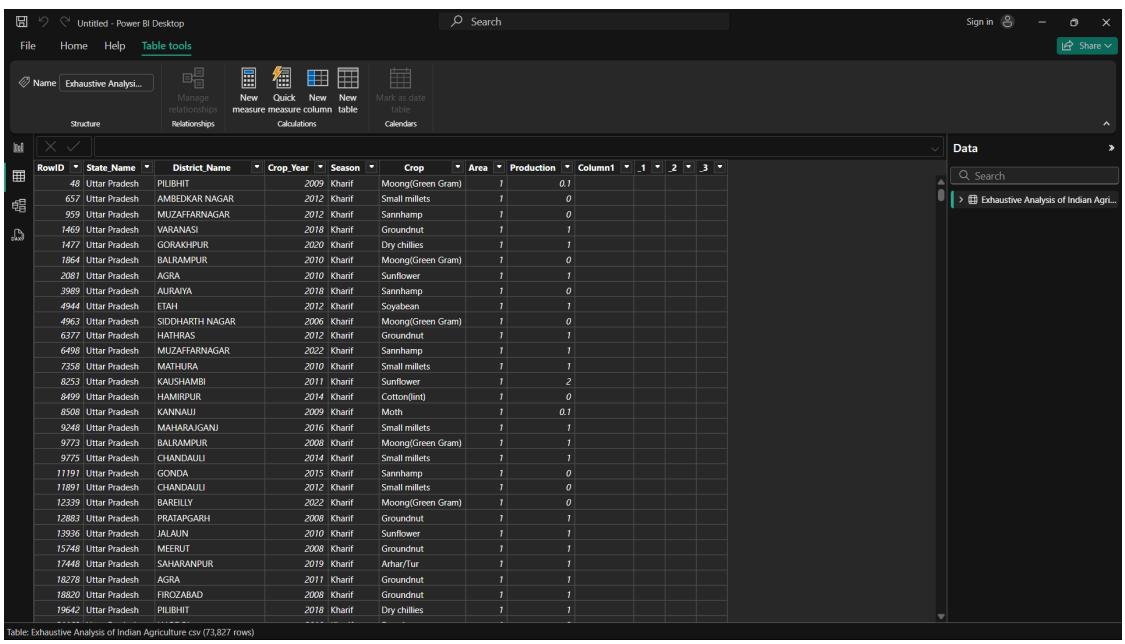


RowID	State_Name	District_Name	Crop_Year	Season	Crop	Area	Production	_1	_2
0	Bihar	NALANDA	2005	Rabi	Wheat	81934	160425		
1	Assam	KARBI ANGLONG	2019	Whole Year	Onion	257	514		
2	Gujarat	ANAND	2020	Summer	Maize	100	100	Total production	
3	Karnataka	UTTAR KANNAD	2013	Rabi	Groundnut	2872	4572	45168275000	
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		

7.Now click on load option



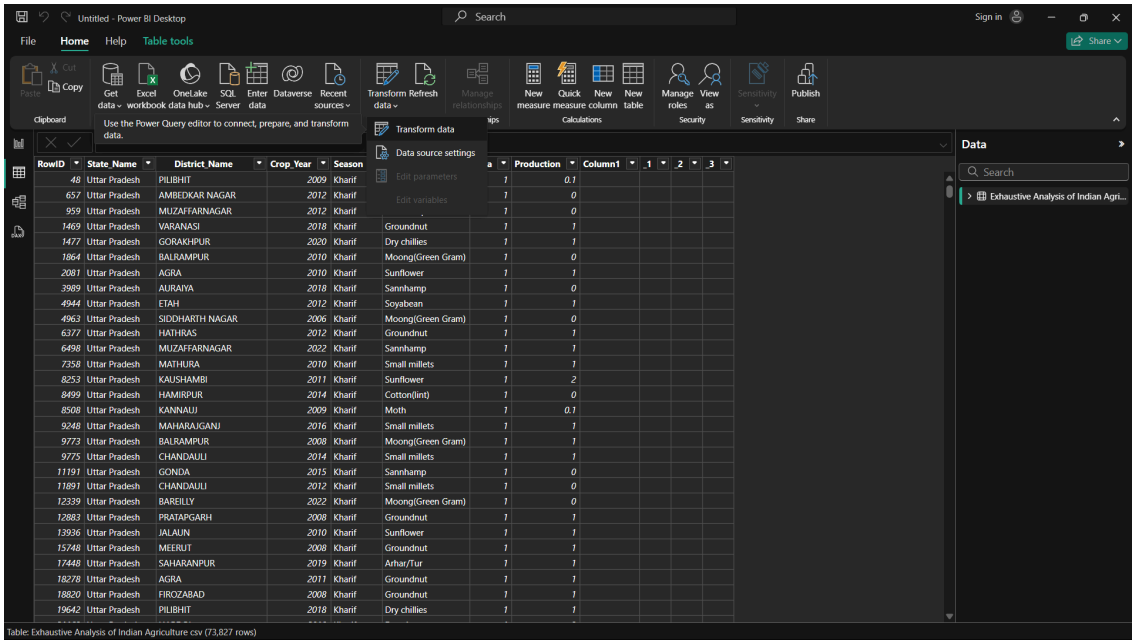
8. To see our data we need to click on table view option from left.

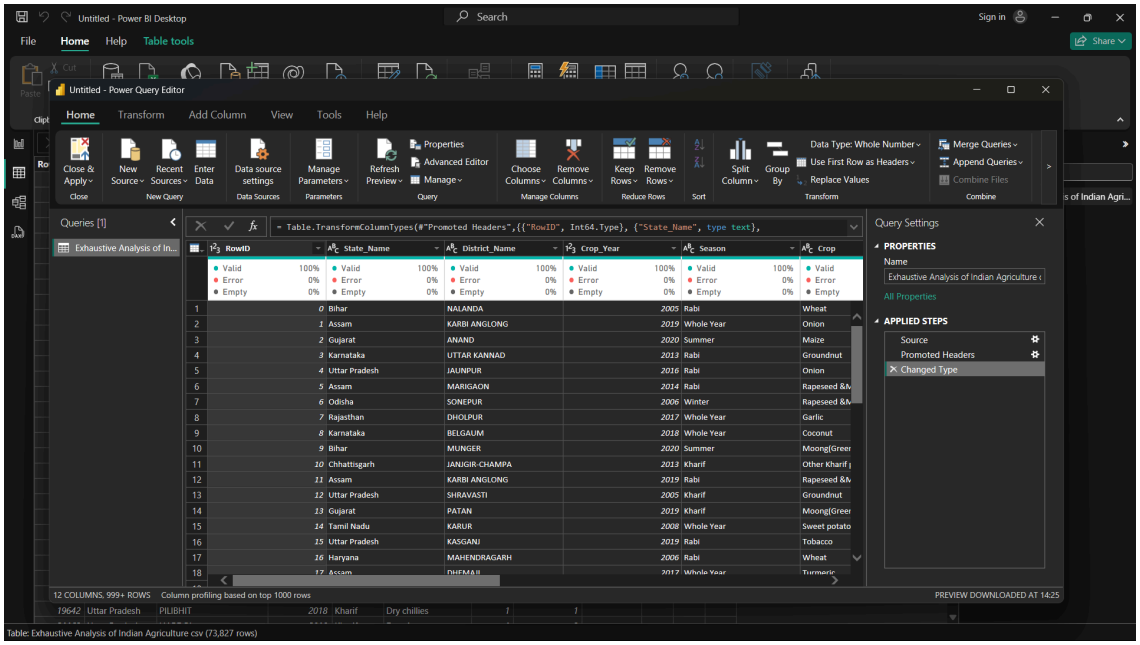


RowID	State_Name	District_Name	Crop_Year	Season	Crop	Area	Production	Column1	_1	_2	_3
48	Uttar Pradesh	PILIBHIT	2009	Kharif	Moong(Green Gram)	1	0.1				
657	Uttar Pradesh	AMBEDKAR NAGAR	2012	Kharif	Small millets	1	0				
959	Uttar Pradesh	MUZAFFARNAGAR	2012	Kharif	Sannhamp	1	0				
1469	Uttar Pradesh	VARANASI	2018	Kharif	Groundnut	1	1				
1477	Uttar Pradesh	GORAKHPUR	2020	Kharif	Dry chillies	1	1				
1864	Uttar Pradesh	BALRAMPUR	2010	Kharif	Moong(Green Gram)	1	0				
2081	Uttar Pradesh	AGRA	2010	Kharif	Sunflower	1	1				
3989	Uttar Pradesh	AURAIYA	2018	Kharif	Sannhamp	1	0				
4944	Uttar Pradesh	ETAH	2012	Kharif	Soyabean	1	1				
4963	Uttar Pradesh	SIDDHARTH NAGAR	2006	Kharif	Moong(Green Gram)	1	0				
6377	Uttar Pradesh	HATHRAS	2012	Kharif	Groundnut	1	1				
6498	Uttar Pradesh	MUZAFFARNAGAR	2022	Kharif	Sannhamp	1	1				
7358	Uttar Pradesh	MATHURA	2010	Kharif	Small millets	1	1				
8253	Uttar Pradesh	KAUSHAMBI	2011	Kharif	Sunflower	1	2				
8499	Uttar Pradesh	HAMIRPUR	2014	Kharif	Cotton(lint)	1	0				
8508	Uttar Pradesh	KANNAUJ	2009	Kharif	Moth	1	0.1				
9248	Uttar Pradesh	MAHARAJGANJ	2016	Kharif	Small millets	1	1				
9773	Uttar Pradesh	BALRAMPUR	2008	Kharif	Moong(Green Gram)	1	1				
9775	Uttar Pradesh	CHANDAULI	2014	Kharif	Small millets	1	1				
11191	Uttar Pradesh	GONDA	2015	Kharif	Sannhamp	1	0				
11891	Uttar Pradesh	CHANDAULI	2012	Kharif	Small millets	1	0				
12339	Uttar Pradesh	BAREILLY	2022	Kharif	Moong(Green Gram)	1	0				
12883	Uttar Pradesh	PRATAPGARH	2008	Kharif	Groundnut	1	1				
13936	Uttar Pradesh	JALAUN	2010	Kharif	Sunflower	1	1				
15748	Uttar Pradesh	MEERUT	2008	Kharif	Groundnut	1	1				
17448	Uttar Pradesh	SAHARANPUR	2019	Kharif	Arhar/Tur	1	1				
18278	Uttar Pradesh	AGRA	2011	Kharif	Groundnut	1	1				
18820	Uttar Pradesh	FIROZABAD	2008	Kharif	Groundnut	1	1				
19642	Uttar Pradesh	PILIBHIT	2018	Kharif	Dry chillies	1	1				

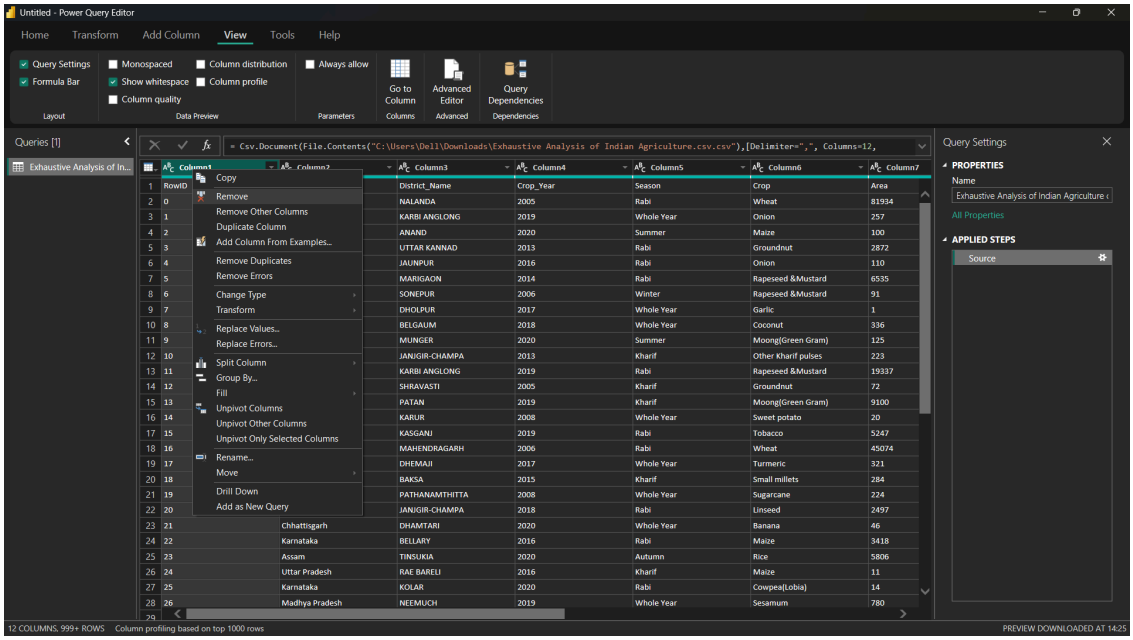
This is our data.

9. We know that our data is not clean,In order to clean it we need to transform data by clicking on home section ,search for transform data .Now you'll see another window will get appear.You can do all the cleaning and transformation here which is known as power query Editor.

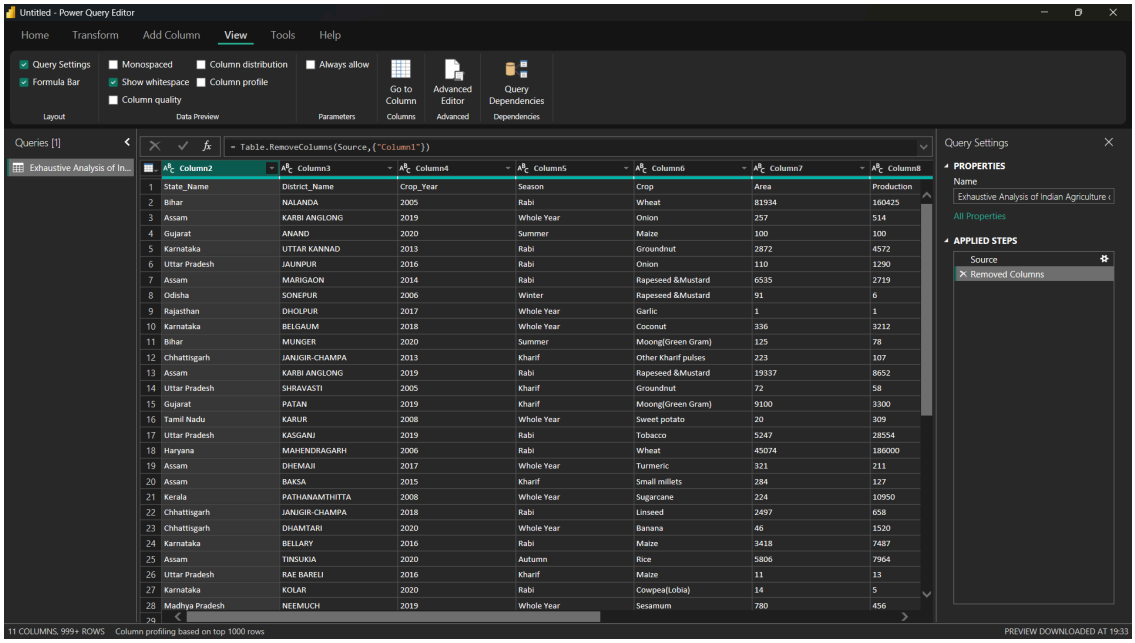




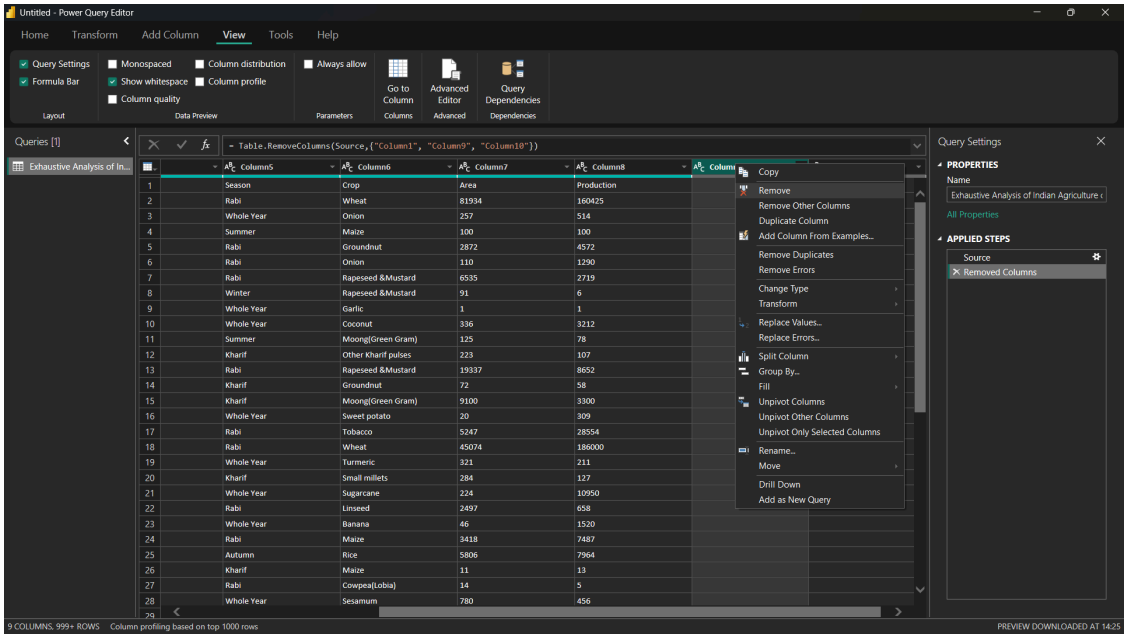
10. You can now make changes to your data in this window.For eg. If you want to remove blank columns or unnecessary columns-> Right Click RowId->Select Remove column

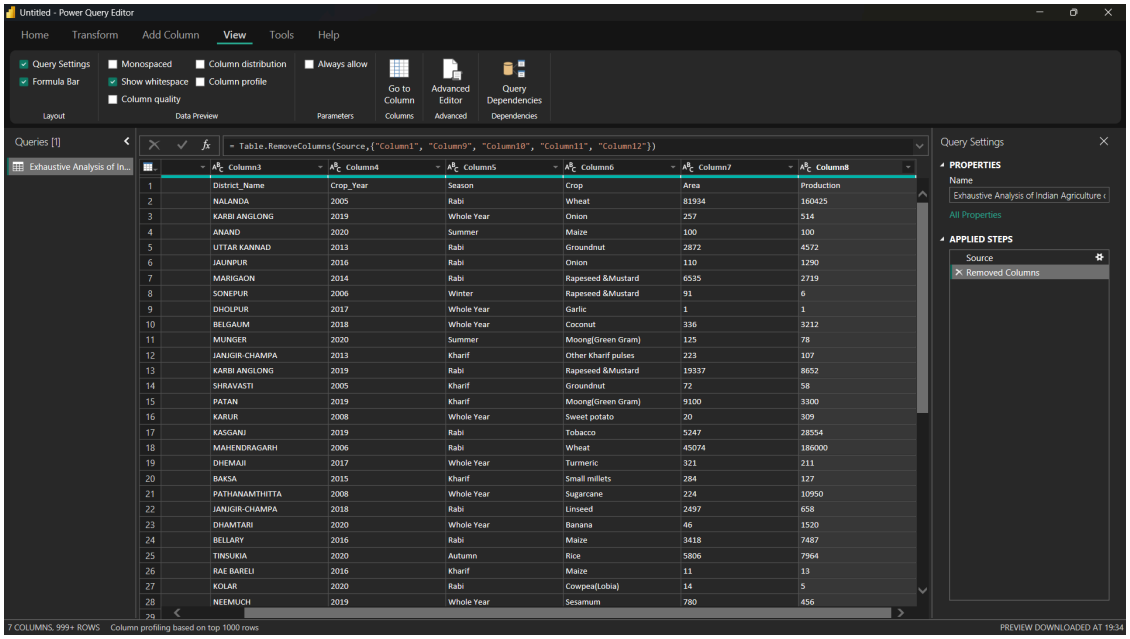


	Column1	Column2	Column3	Column4	Column5	Column6	Column7
1	RowID		District_Name	Crop_Year	Season	Crop	Area
2	0		NALANDA	2005	Rabi	Wheat	81934
3	1		KARBI ANGLONG	2019	Whole Year	Onion	257
4	2		ANAND	2020	Summer	Maize	100
5	3		UTTAR KANNAD	2013	Rabi	Groundnut	2872
6	4		JAUNPUR	2016	Rabi	Onion	110
7	5		MARIGAON	2014	Rabi	Rapeseed &Mustard	6535
8	6		SONEPUR	2006	Winter	Rapeseed &Mustard	91
9	7		DHOLPUR	2017	Whole Year	Garlic	1
10	8		BELGAUM	2018	Whole Year	Coconut	336
11	9		MUNGER	2020	Summer	Moong(Green Gram)	125
12	10		JANJGIR-CHAMPA	2013	Kharif	Other Kharif pulses	223
13	11		KARBI ANGLONG	2019	Rabi	Rapeseed &Mustard	19337
14	12		SHRAVASTI	2005	Kharif	Groundnut	72
15	13		PATAN	2019	Kharif	Moong(Green Gram)	9100
16	14		KARUR	2008	Whole Year	Sweet potato	20
17	15		KASGANJ	2019	Rabi	Tobacco	5247
18	16		MAHENDRAGARH	2006	Rabi	Wheat	45074
19	17		DHEMAJI	2017	Whole Year	Turmeric	321
20	18		BAKSA	2015	Kharif	Small millets	284
21	19		PATHANAMTHITTA	2008	Whole Year	Sugarcane	224
22	20		JANJGIR-CHAMPA	2018	Rabi	Linseed	2497
23	21	Chhattisgarh	DHAMTARI	2020	Whole Year	Banana	46
24	22	Karnataka	BELLARY	2016	Rabi	Maize	3418
25	23	Assam	TINSUKIA	2020	Autumn	Rice	5806
26	24	Uttar Pradesh	RAE BARELI	2016	Kharif	Maize	11
27	25	Karnataka	KOLAR	2020	Rabi	Cowpea(Lobia)	14
28	26	Madhya Pradesh	NEEMUCH	2019	Whole Year	Sesamum	780



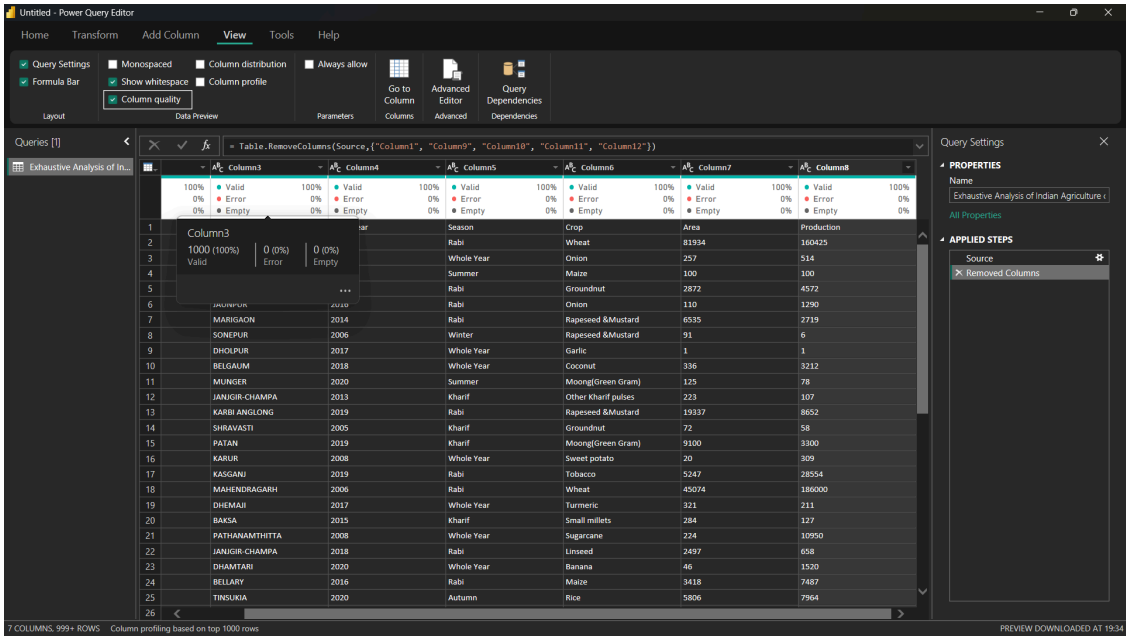
	Column2	Column3	Column4	Column5	Column6	Column7	Column8
1	State_Name	District_Name	Crop_Year	Season	Crop	Area	Production
2	Bihar	NALANDA	2005	Rabi	Wheat	81934	160425
3	Assam	KARBI ANGLONG	2019	Whole Year	Onion	257	514
4	Gujarat	ANAND	2020	Summer	Maize	100	100
5	Karnataka	UTTAR KANNAD	2013	Rabi	Groundnut	2872	4572
6	Uttar Pradesh	JAUNPUR	2016	Rabi	Onion	110	1290
7	Assam	MARIGAON	2014	Rabi	Rapeseed &Mustard	6535	2719
8	Odisha	SONEPUR	2006	Winter	Rapeseed &Mustard	91	6
9	Rajasthan	DHOLPUR	2017	Whole Year	Garlic	1	1
10	Karnataka	BELGAUM	2018	Whole Year	Coconut	336	3212
11	Bihar	MUNGER	2020	Summer	Moong(Green Gram)	125	78
12	Chhattisgarh	JANJGIR-CHAMPA	2013	Kharif	Other Kharif pulses	223	107
13	Assam	KARBI ANGLONG	2019	Rabi	Rapeseed &Mustard	19337	8652
14	Uttar Pradesh	SHRAVASTI	2005	Kharif	Groundnut	72	58
15	Gujarat	PATAN	2019	Kharif	Moong(Green Gram)	9100	3300
16	Tamil Nadu	KARUR	2008	Whole Year	Sweet potato	20	309
17	Uttar Pradesh	KASGANJ	2019	Rabi	Tobacco	5247	28554
18	Haryana	MAHENDRAGARH	2006	Rabi	Wheat	45074	186000
19	Assam	DHEMAJI	2017	Whole Year	Turmeric	321	211
20	Assam	BAKSA	2015	Kharif	Small millets	284	127
21	Kerala	PATHANAMTHITTA	2008	Whole Year	Sugarcane	224	10950
22	Chhattisgarh	JANJGIR-CHAMPA	2018	Rabi	Linseed	2497	658
23	Chhattisgarh	DHAMTARI	2020	Whole Year	Banana	46	1520
24	Karnataka	BELLARY	2016	Rabi	Maize	3418	7487
25	Assam	TINSUKIA	2020	Autumn	Rice	5806	7964
26	Uttar Pradesh	RAE BARELI	2016	Kharif	Maize	11	13
27	Karnataka	KOLAR	2020	Rabi	Cowpea(Lobia)	14	5
28	Madhya Pradesh	NEEMUCH	2019	Whole Year	Sesamum	780	456





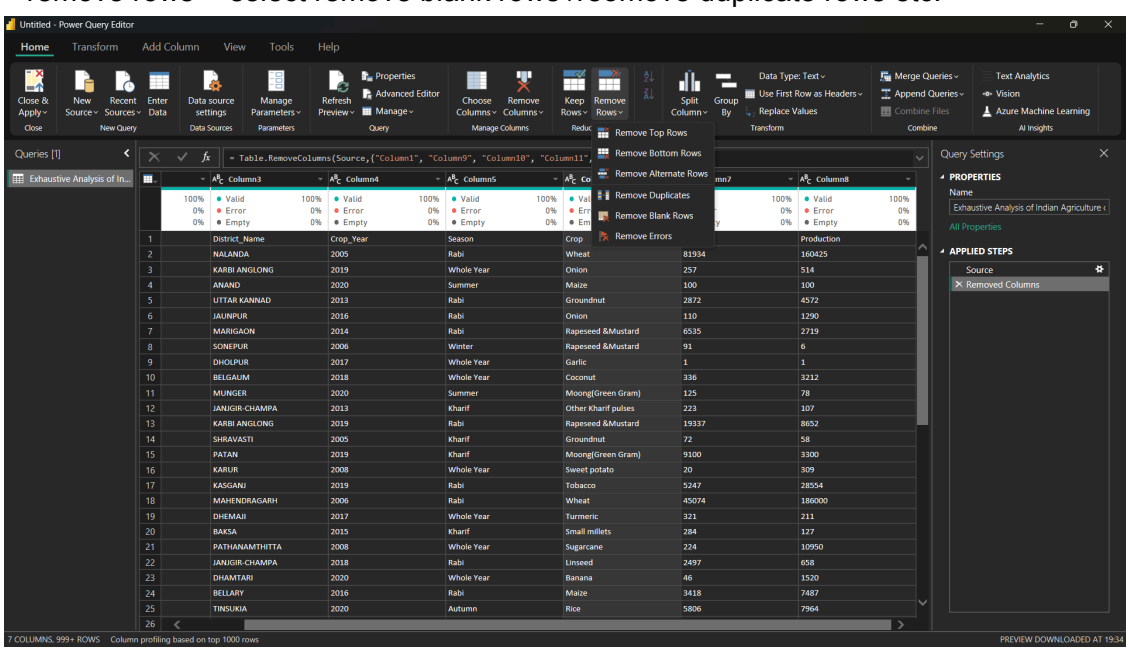
11. How to check whether your data contains missing value or null value?

Go to your view tab in that visit column quality now if empty value is 0% that means our data doesn't contain any missing value.We do not have any null values here.

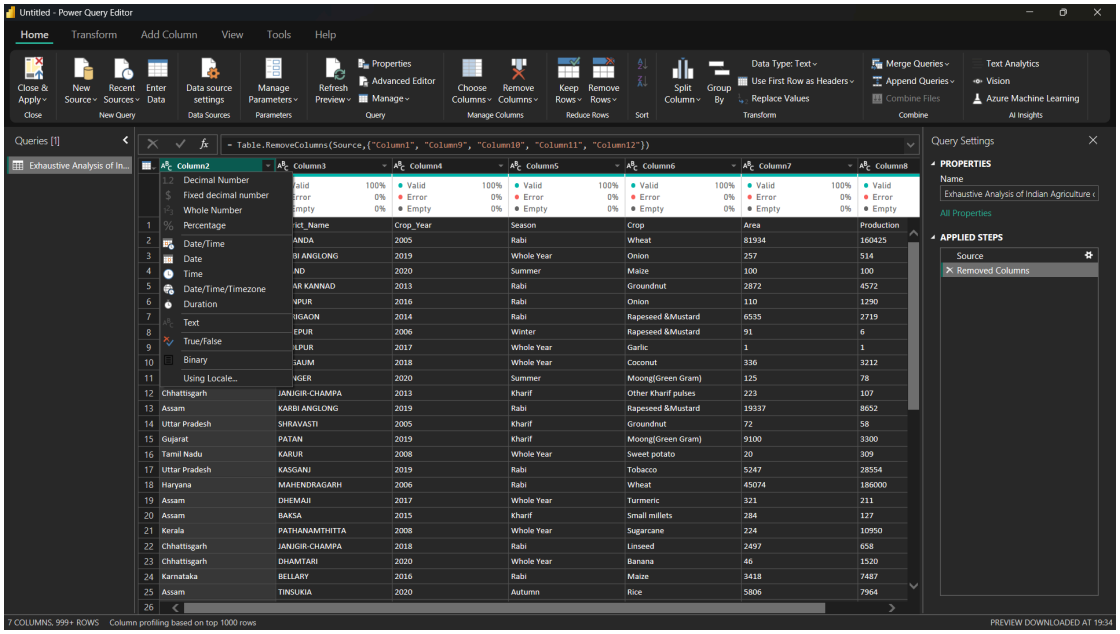


12. What if we have null value?

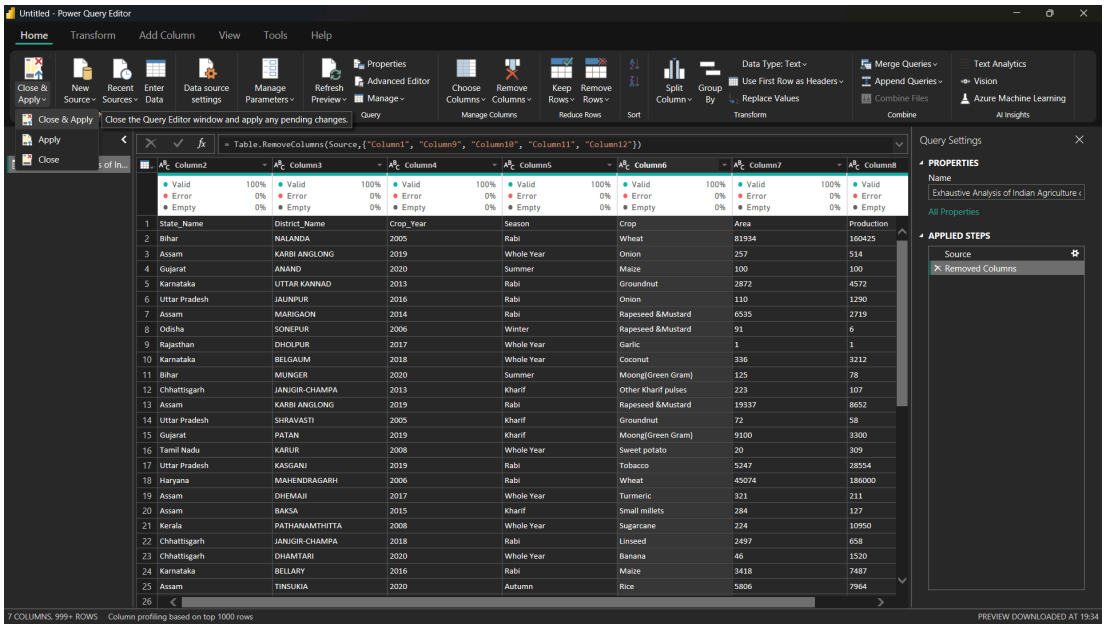
For removing null values,duplicate value is simple we just have to locate to our home tab ->remove rows ->select remove blank rows /reomove duplicate rows etc.



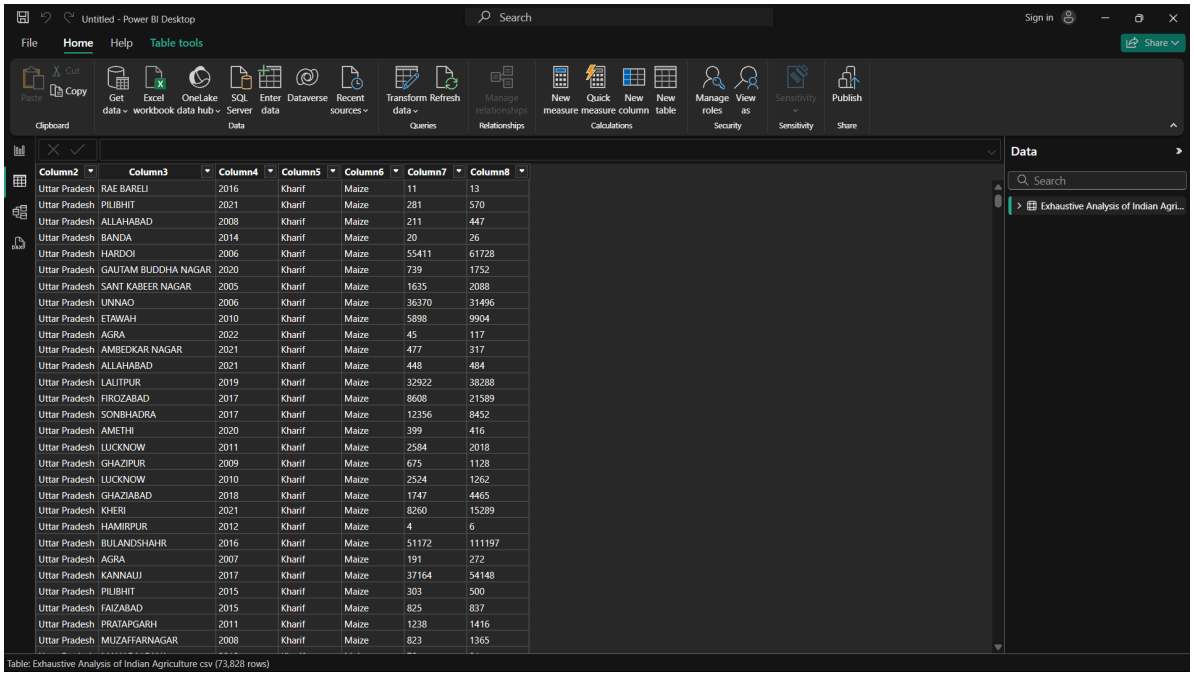
13.Clicking on left corner of your column will give you the data type.



14. To save our file ->Home tab->Close & apply the changes will apply only if you follow this step.



15. Final result



Column2	Column3	Column4	Column5	Column6	Column7	Column8
Uttar Pradesh	RAE BARELI	2016	Kharif	Maize	11	13
Uttar Pradesh	PILIBHIT	2021	Kharif	Maize	281	570
Uttar Pradesh	ALLAHABAD	2008	Kharif	Maize	211	447
Uttar Pradesh	BANDA	2014	Kharif	Maize	20	26
Uttar Pradesh	HARDOI	2006	Kharif	Maize	55411	61728
Uttar Pradesh	GAUTAM BUDDHA NAGAR	2020	Kharif	Maize	739	1752
Uttar Pradesh	SANT KABEER NAGAR	2005	Kharif	Maize	1635	2088
Uttar Pradesh	UNNAO	2006	Kharif	Maize	36370	31496
Uttar Pradesh	ETAWAH	2010	Kharif	Maize	5898	9904
Uttar Pradesh	AGRA	2022	Kharif	Maize	45	117
Uttar Pradesh	AMBEDKAR NAGAR	2021	Kharif	Maize	477	317
Uttar Pradesh	ALLAHABAD	2021	Kharif	Maize	448	484
Uttar Pradesh	LALITPUR	2019	Kharif	Maize	32922	38288
Uttar Pradesh	FIROZABAD	2017	Kharif	Maize	8608	21589
Uttar Pradesh	SONBHADRA	2017	Kharif	Maize	12356	8452
Uttar Pradesh	AMETHI	2020	Kharif	Maize	399	416
Uttar Pradesh	LUCKNOW	2011	Kharif	Maize	2584	2018
Uttar Pradesh	GHAZIPUR	2009	Kharif	Maize	675	1128
Uttar Pradesh	LUCKNOW	2010	Kharif	Maize	2524	1262
Uttar Pradesh	GHAZIABAD	2018	Kharif	Maize	1747	4465
Uttar Pradesh	KHERI	2021	Kharif	Maize	8260	15289
Uttar Pradesh	HAMIRPUR	2012	Kharif	Maize	4	6
Uttar Pradesh	BULANDSHAHR	2016	Kharif	Maize	51172	111197
Uttar Pradesh	AGRA	2007	Kharif	Maize	191	272
Uttar Pradesh	KANNAUJ	2017	Kharif	Maize	37164	54148
Uttar Pradesh	PILIBHIT	2015	Kharif	Maize	303	500
Uttar Pradesh	FAIZABAD	2015	Kharif	Maize	825	837
Uttar Pradesh	PRATAPGARH	2011	Kharif	Maize	1238	1416
Uttar Pradesh	MUZAFFARNAGAR	2008	Kharif	Maize	823	1365