

WEEK 1

Exhaustive Analysis of Indian Agriculture using Power BI

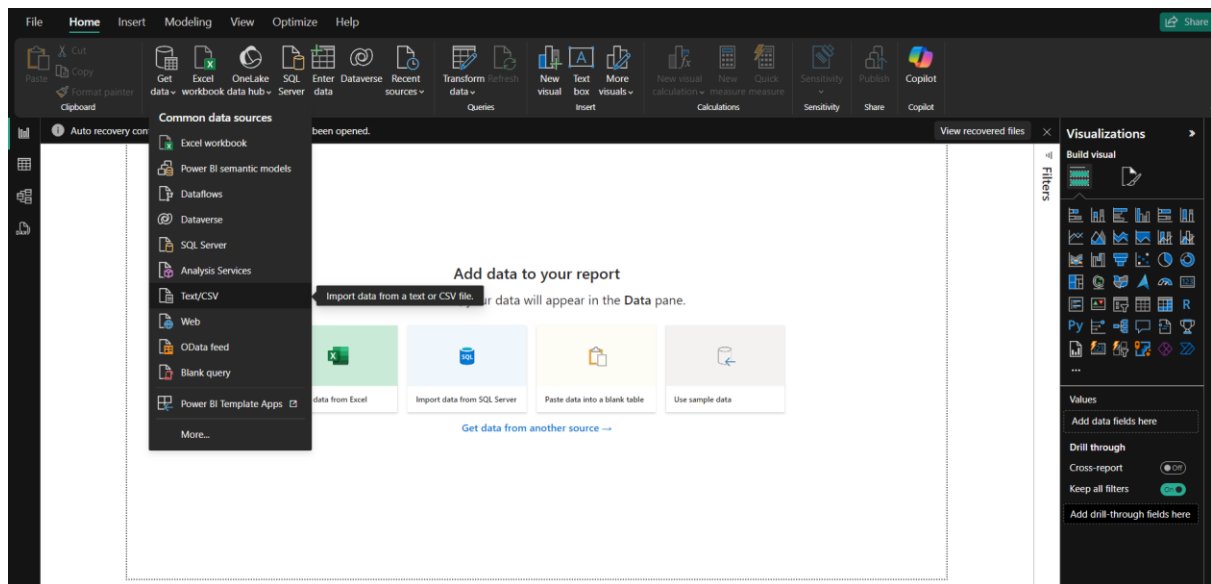
1. ETL Process :

Extract: The first stage in the ETL process is to extract data from various sources such as transactional systems, spreadsheets, and flat files. This step involves reading data from the source systems and storing it in a staging area.

Transform: In this stage, the extracted data is transformed into a format that is suitable for loading into the data warehouse. This may involve cleaning and validating the data, converting data types, combining data from multiple sources, and creating new data fields.

Load: After the data is transformed, it is loaded into the data warehouse. This step involves creating the physical data structures and loading the data into the warehouse.

2. GET DATA :



To extract data in Power BI, follow these steps:

1. **Open Power BI Desktop:** Launch the application.
2. **Click "Get Data":** Select the **Get Data** option from the Home tab.
3. **Choose Data Source:** Pick a source like Excel, SQL Server, Web, or others.

e33952a7b79341025642.csv

File Origin: 1252: Western European (Windows) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

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	A
3	Karnataka	UTTAR KANNAD	2013	Rabi	Groundnut	2872	4572	45168275000	8
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	JANIGIR-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		

Extract Table Using Examples | Load | Transform Data | Cancel

Report View: Used to create and design visualizations and reports.

Table View: Displays raw data tables for review and editing.

Model View: Helps define relationships between tables and manage the data model.

3. TRANSFORM DATA

Home | Transform | Add Column | View | Tools | Help

Close & Apply | New Source | Recent Sources | Enter Data | Data source settings | Manage Parameters | Refresh Preview | Advanced Editor | Choose Columns | Remove Columns | Keep Rows | Remove Rows | Sort | Split Column | Group By | Data Type: Whole Number | Use First Row as Headers | Replace Values | Merge Queries | Append Queries | Combine Files | Text Analytics | Vision | Azure Machine Learning | AI Insights

Queries [1] | e33952a7b79341025642

Table.TransformColumnTypes(*Promoted Headers*, [{"RowID", Int64.Type}, {"State_Name", type text}, {"District_Name", type text}, {"Crop_Year", Int64.Type}, {"Season", type text}, {"Crop", type text}, {"Area", Int64.Type}])

RowID	State_Name	District_Name	Crop_Year	Season	Crop	Area
0	Bihar	NALANDA	2005	Rabi	Wheat	
1	Assam	KARBI ANGLONG	2019	Whole Year	Onion	
2	Gujarat	ANAND	2020	Summer	Maize	
3	Karnataka	UTTAR KANNAD	2013	Rabi	Groundnut	
4	Uttar Pradesh	JAUNPUR	2016	Rabi	Onion	
5	Assam	MARIGAON	2014	Rabi	Rapeseed & Mustard	
6	Odisha	SONEPUR	2006	Winter	Rapeseed & Mustard	
7	Rajasthan	DHOLPUR	2017	Whole Year	Garlic	
8	Karnataka	BELGAUM	2018	Whole Year	Coconut	
9	Bihar	MUNGER	2020	Summer	Moong(Green Gram)	
10	Chhattisgarh	JANIGIR-CHAMPA	2013	Kharif	Other Kharif pulses	
11	Assam	KARBI ANGLONG	2019	Rabi	Rapeseed & Mustard	
12	Uttar Pradesh	SHRAVASTI	2005	Kharif	Groundnut	
13	Gujarat	PATAN	2019	Kharif	Moong(Green Gram)	
14	Tamil Nadu	KARUR	2008	Whole Year	Sweet potato	
15	Uttar Pradesh	KASGANJ	2019	Rabi	Tobacco	
16	Haryana	MAHENDRAGARH	2006	Rabi	Wheat	
17	Assam	DHEMAJI	2017	Whole Year	Turmeric	
18	Assam	BAKSA	2015	Kharif	Small millets	
19	Kerala	PATHANAMTHITTA	2008	Whole Year	Sugarcane	
20	Chhattisgarh	JANIGIR-CHAMPA	2018	Rabi	Linseed	
21	Chhattisgarh	DHAMIARI	2020	Whole Year	Banana	
22	Karnataka	BELLARY	2016	Rabi	Maize	
23	Assam	TINSUKIA	2020	Autumn	Rice	
24	Uttar Pradesh	RAE BAREILLY	2016	Kharif	Maize	

Query Settings

PROPERTIES

Name: e33952a7b79341025642

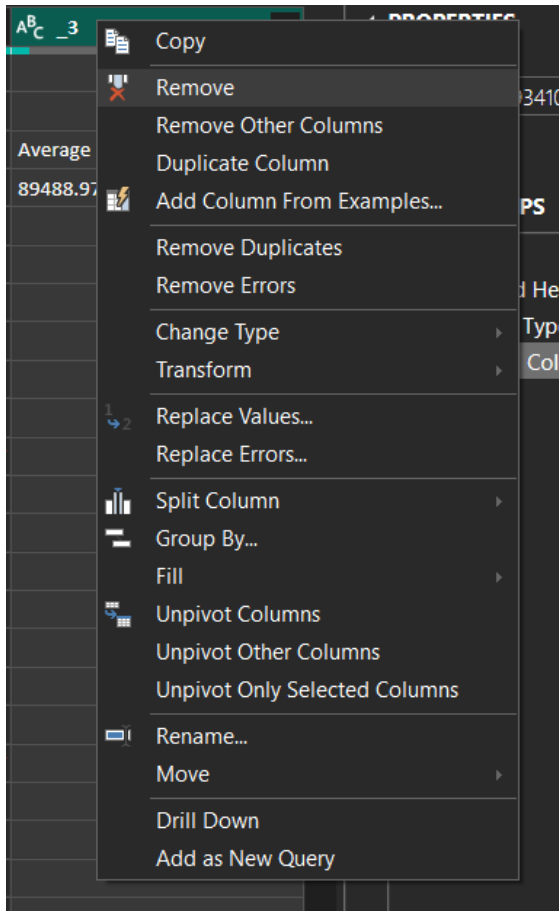
APPLIED STEPS

Source: e33952a7b79341025642

Promoted Headers

Changed Type

- Remove Columns



- Column Quality

☒ Query Settings
☐ Monospaced
☐ Column distribution
☐ Always allow

Go to Column

Advanced Editor

Query Dependencies

☒ Formula Bar
☒ Show whitespace
☐ Column profile

Layout

Data Preview

Parameters

Columns

Advanced

Dependencies

Queries [1]
<
✕ ✓ fx
= Table.RemoveColumns(#"Changed Type", {"", "_1", "_2", "_3"})

	A _C	District_Name	I ₂	Crop_Year	A _C	Season	A _C	Crop	L ₂	Area	L ₂	Production
	100% 0% 0%	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%	
1		NALANDA		2005	Rabi		Wheat		81934		160425	
2		KARBI ANGLONG		2019	Whole Year		Onion		257		514	
3		ANAND		2020	Summer		Maize		100		100	
4		UTTAR KANNAD		2013	Rabi		Groundnut		2872		4572	
5		JAUNPUR		2016	Rabi		Onion		110		1290	
6		MARIGAON		2014	Rabi		Rapeseed & Mustard		6535		2715	
7		SONEPUR		2006	Winter		Rapeseed & Mustard		91		6	
8		DHOLPUR		2017	Whole Year		Garlic		1		1	
9		BELGAUM		2018	Whole Year		Coconut		336		3212	
10		MUNGER		2020	Summer		Moong(Green Gram)		125		78	
11		JANIGIR-CHAMPA		2013	Kharif		Other Kharif pulses		223		107	
12		KARBI ANGLONG		2019	Rabi		Rapeseed & Mustard		19337		8652	
13		SHRAVASTI		2005	Kharif		Groundnut		72		58	
14		PATAN		2019	Kharif		Moong(Green Gram)		9100		3300	
15		KARUR		2008	Whole Year		Sweet potato		20		309	
16		KASEGANJ		2019	Rabi		Tobacco		5247		28354	
17		MAHENDRAGARH		2006	Rabi		Wheat		45074		186000	
18		DHEMAJI		2017	Whole Year		Turmeric		321		211	
19		BAKSA		2015	Kharif		Small millets		284		127	
20		PATHANAMTHITTA		2008	Whole Year		Sugarcane		224		10950	
21		JANIGIR-CHAMPA		2018	Rabi		Linseed		2497		658	
22		DHAMTARI		2020	Whole Year		Banana		46		1520	
23		BELLARY		2016	Rabi		Maize		3418		748	

4.Final Step – Close and Apply

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Manage relationships

New measure

Quick measure

New column

New table

Mark as date table

Calendars

Structure

Auto recovery contains some recovered files that haven't been opened.

View recovered files

✕

✓

✕

RowID	State Name	District Name	Crop Year	Season	Crop	Area	Production
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	CHANDAUJI	2014	Kharif	Small millets	1	1
11191	Uttar Pradesh	GONDA	2015	Kharif	Sannhamp	1	0
11891	Uttar Pradesh	CHANDAUJI	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
13926	Uttar Pradesh	JALAUN	2010	Kharif	Sunflower	1	1
15748	Uttar Pradesh	MEERUT	2008	Kharif	Groundnut	1	1
17440	Uttar Pradesh	CALANDANDEI	2010	Kharif	Moong(Green Gram)	1	1