

Power BI- Assignment- 11, 12 & 13

#datavizualization



Mouli Geddam

Jan 19 2021 · 9 min read

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Assignment 11:

First , we import the data on PowerBi Desktop and we can see that the data needs to cleaned as it is inconsistent. To transform the data, we select the Transform Data option from the Home menu.

Use Case – House Price

[Source – House Price](#)

Analytics – Clean & Secure the Report

Report/Dashboard – Nariman Insights

Objective – Power BI Desktop, Cloud Service and End to EndWorkflow

Open the Excel file and create a basic table showing data for sales of houses in different areas:

Handover Date	PostCode	Location	Sales
15 April 2010	CORNWALL		150000
26 August 2016	CORNWALL		210000
13 September 2016	CORNWALL		148000
16 September 2016	CORNWALL		25000
05 June 2015	DERBYSHIRE		19500
26 February 2016	DERBYSHIRE		75000
30 August 2016	DERBYSHIRE		150000
02 August 2016	DEVON		380000

There are 5 types of building - in an ideal world each viewer should only see their relevant category. There are two options available: create 5 independent reports or use the one report but filter it to show data only for the current user. The later can be performed using roles:

Use Case – House Price

[Source – House Price](#)

Analytics – Clean & Secure the Report

Report/Dashboard – Nariman Insights

Objective – Power BI Desktop, Cloud Service and End to EndWorkflow

Open the Excel file and create a basic table showing data for sales of houses in different areas:

Handover Date	PostCode	Location	Sales
15 April 2010	CORNWALL		150000
26 August 2016	CORNWALL		210000
13 September 2016	CORNWALL		148000
16 September 2016	CORNWALL		25000
05 June 2015	DERBYSHIRE		19500
26 February 2016	DERBYSHIRE		75000
30 August 2016	DERBYSHIRE		150000
02 August 2016	DEVON		380000

Purchase Date	Postcode	Location	Value
15 April 2010	CORNWALL	CORNWALL	115000
26 August 2016	CORNWALL	CORNWALL	210000
13 September 2016	CORNWALL	CORNWALL	148000
16 September 2016	CORNWALL	CORNWALL	25000
05 June 2015	DERBYSHIRE	DERBYSHIRE	19500
26 February 2016	DERBYSHIRE	DERBYSHIRE	75000
30 August 2016	DERBYSHIRE	DERBYSHIRE	150000
02 August 2016	DEVON	DEVON	380000

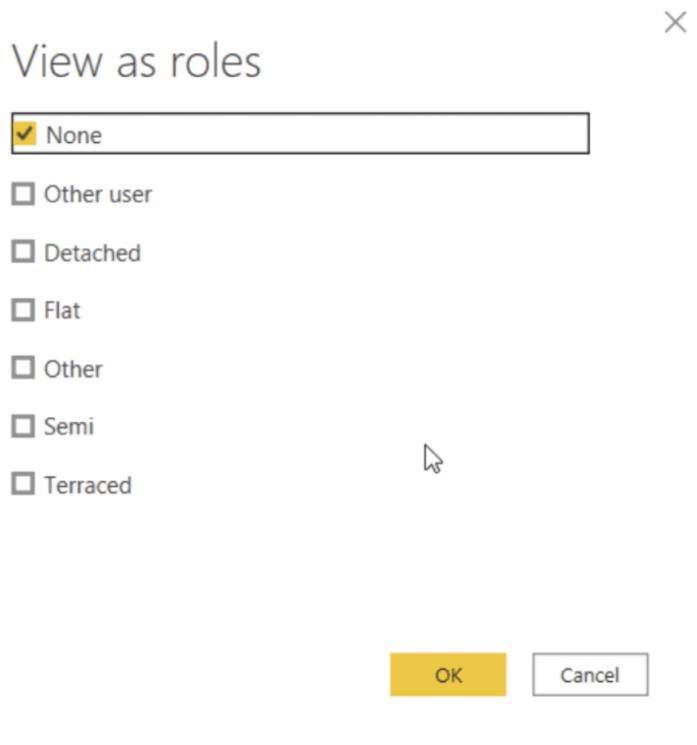
Manage roles

Roles Tables Table filter DAX expression

Detached	House Price	[.PropertyType] = "D"
Flat		

Create a role for each house type, filtering using the PropertyType code. Look in the Property types sheet to find the codes.

Once you have made the roles, check that each is working using View Roles on the Home tab:

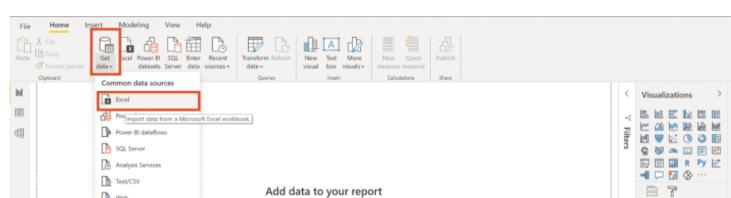


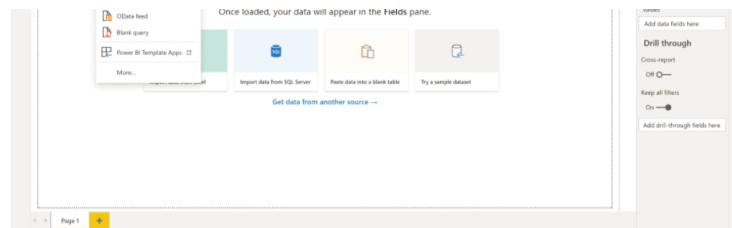
Publish the report in Power BI Service and check the roles.

Result – Clean & Secure Power BI Report

Solution 11 -

- Load the data into Power BI using the Excel Connector on the Get data menu. Click on Transform data option.





2. In power query editor, in the House Price table there are two null rows on the top. Let us remove the top two rows by using the Remove Rows option from the Home Menu. Click on Remove Rows and then select Remove Top Rows.

A dialog box will appear. In this, write 2 so that the top two rows are removed from the table and then click OK.



Top two rows will be removed from the table.

		Column2	Column3	Column4	Column5	Column6
1	SalesPrice	Handover Date	null	null	null	PostCode
2	112000	22/05/2006 12:00:00 AM	null	null	null	MK13 7QS
3	900000	29/06/2006 12:00:00 AM	null	null	null	C48 7QN
4	250000	7/07/2006 12:00:00 AM	null	null	null	D16 3DE
5	157000	1/12/2006 12:00:00 AM	null	null	null	M25 1HF
6	326500	24/11/2006 12:00:00 AM	null	null	null	SW6 1LU
7	205000	17/03/2006 12:00:00 AM	null	null	null	ST9 9PR
8	105000	19/07/2006 12:00:00 AM	null	null	null	IP3 8UY
9	93000	31/05/2006 12:00:00 AM	null	null	null	NP13 0RW
10	490000	27/04/2006 12:00:00 AM	null	null	null	CV23 8DE
11	86000	9/02/2006 12:00:00 AM	null	null	null	CV1 5EH
12	465000	9/02/2006 12:00:00 AM	null	null	null	GU20 0YY
13	489995	15/09/2006 12:00:00 AM	null	null	null	CR22 7QD
14	120000	29/05/2006 12:00:00 AM	null	null	null	CW12 1QN
15	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
16	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
17	325000	9/06/2006 12:00:00 AM	null	null	null	RG27 8AF
18	199950	14/07/2006 12:00:00 AM	null	null	null	SO30 3HG
19	null	null	null	null	null	
20	null	null	null	null	null	
21	null	null	null	null	null	
22	215000	17/03/2006 12:00:00 AM	null	null	null	L3 5XQ
23	471000	6/10/2006 12:00:00 AM	null	null	null	WA9 4ST
24	138000	17/02/2006 12:00:00 AM	null	null	null	NN2 7LR
25	427500	30/08/2006 12:00:00 AM	null	null	null	Y0G0 7HN
26	222500	31/07/2006 12:00:00 AM	null	null	null	SW2 2LW
27	116000	24/07/2006 12:00:00 AM	null	null	null	CF14 1BS
28	245000	17/10/2006 12:00:00 AM	null	null	null	Y0G1 3AX
29	260000	31/03/2006 12:00:00 AM	null	null	null	BN44 3WN

Now, the top row in the above table can be used as column headers. Click on Use First Row as Header and then again click on Use First Row as Headers from the Home menu.

Now, the column headers have been updated as shown below:

	SalesPrice	Handover Date	Column3	Column4	Column5	PostCode
1	112000	22/05/2006 12:00:00 AM	null	null	null	MK13 7QS
2	900000	29/06/2006 12:00:00 AM	null	null	null	CH5 7QN
3	250000	7/07/2006 12:00:00 AM	null	null	null	D6 3DE
4	157000	1/12/2006 12:00:00 AM	null	null	null	M25 1HF
5	326500	24/11/2006 12:00:00 AM	null	null	null	SW6 1LJ
6	205000	17/03/2006 12:00:00 AM	null	null	null	ST9 9PR
7	105000	19/07/2006 12:00:00 AM	null	null	null	IP3 8UY
8	93000	31/05/2006 12:00:00 AM	null	null	null	NP19 0RW
9	490000	27/04/2006 12:00:00 AM	null	null	null	CV23 8DE
10	86000	9/06/2006 12:00:00 AM	null	null	null	CV1 5EH
11	485000	9/02/2006 12:00:00 AM	null	null	null	GU29 0YF
12	48995	15/09/2006 12:00:00 AM	null	null	null	CB22 7QD
13	120000	25/05/2006 12:00:00 AM	null	null	null	CW12 1QN
14	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
15	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
16	325000	9/06/2006 12:00:00 AM	null	null	null	RG27 8AF
17	199950	14/07/2006 12:00:00 AM	null	null	null	SO30 3HG
18	null	null	null	null	null	null
19	null	null	null	null	null	null
20	null	null	null	null	null	null
21	215000	17/03/2006 12:00:00 AM	null	null	null	L3 5XX
22	471000	6/10/2006 12:00:00 AM	null	null	null	WA9 4ST
23	138000	17/02/2006 12:00:00 AM	null	null	null	NN2 7LR
24	427500	30/08/2006 12:00:00 AM	null	null	null	YO60 7HN
25	222500	31/07/2006 12:00:00 AM	null	null	null	SW2 2JL
26	116000	24/07/2006 12:00:00 AM	null	null	null	CF14 1BS
27	243000	17/10/2006 12:00:00 AM	null	null	null	YO61 3AX
28	260000	31/03/2006 12:00:00 AM	null	null	null	BN44 3WN
29	465000	24/05/2006 12:00:00 AM	null	null	null	SP11 9ER

As Column3, Column4 and Column5 are having null values so select these columns by pressing the shift key and then right click on the columns select Remove Columns.

	SalesPrice	Handover Date	Column3	Column4	Column5	PostCode
1	112000	22/05/2006 12:00:00 AM	null	null	null	MK13 7QS
2	900000	29/06/2006 12:00:00 AM	null	null	null	CH5 7QN
3	250000	7/07/2006 12:00:00 AM	null	null	null	D6 3DE
4	157000	1/12/2006 12:00:00 AM	null	null	null	M25 1HF
5	326500	24/11/2006 12:00:00 AM	null	null	null	SW6 1LJ
6	205000	17/03/2006 12:00:00 AM	null	null	null	ST9 9PR
7	105000	19/07/2006 12:00:00 AM	null	null	null	IP3 8UY
8	93000	31/05/2006 12:00:00 AM	null	null	null	NP19 0RW
9	490000	27/04/2006 12:00:00 AM	null	null	null	CV23 8DE
10	86000	9/06/2006 12:00:00 AM	null	null	null	CV1 5EH
11	485000	9/02/2006 12:00:00 AM	null	null	null	GU29 0YF
12	48995	15/09/2006 12:00:00 AM	null	null	null	CB22 7QD
13	120000	25/05/2006 12:00:00 AM	null	null	null	CW12 1QN
14	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
15	269950	30/11/2006 12:00:00 AM	null	null	null	DE72 3BT
16	325000	9/06/2006 12:00:00 AM	null	null	null	RG27 8AF
17	199950	14/07/2006 12:00:00 AM	null	null	null	SO30 3HG
18	null	null	null	null	null	null
19	null	null	null	null	null	null
20	null	null	null	null	null	null
21	215000	17/03/2006 12:00:00 AM	null	null	null	L3 5XX
22	471000	6/10/2006 12:00:00 AM	null	null	null	WA9 4ST
23	138000	17/02/2006 12:00:00 AM	null	null	null	NN2 7LR
24	427500	30/08/2006 12:00:00 AM	null	null	null	YO60 7HN
25	222500	31/07/2006 12:00:00 AM	null	null	null	SW2 2JL
26	116000	24/07/2006 12:00:00 AM	null	null	null	CF14 1BS
27	243000	17/10/2006 12:00:00 AM	null	null	null	YO61 3AX
28	260000	31/03/2006 12:00:00 AM	null	null	null	BN44 3WN
29	465000	24/05/2006 12:00:00 AM	null	null	null	SP11 9ER

The table is as shown below:

	SalesPrice	Handover Date	PostCode	PropertyType	NewBuilding	Location
1	112000	22/05/2006 12:00:00 AM	MK13 7QS	F	N	MILTON KEYNES
2	900000	29/06/2006 12:00:00 AM	CH5 7QN	S	N	CHESHIRE WEST AND CHESTER
3	250000	7/07/2006 12:00:00 AM	D6 3DE	T	N	DERBYSHIRE
4	157000	1/12/2006 12:00:00 AM	M25 1HF	T	N	GREATER MANCHESTER
5	326500	24/11/2006 12:00:00 AM	SW6 1LJ	F	N	GREATER LONDON
6	205000	17/03/2006 12:00:00 AM	ST9 9PR	D	N	STOKE-ON-TRENT
7	105000	19/07/2006 12:00:00 AM	IP3 8UY	F	N	SUFFOLK
8	93000	31/05/2006 12:00:00 AM	NP19 0RW	F	N	NEWPORT
9	490000	27/04/2006 12:00:00 AM	CV23 8DE	D	N	WARWICKSHIRE
10	86000	9/06/2006 12:00:00 AM	CV1 5EH	T	N	WEST MIDLANDS
11	485000	9/02/2006 12:00:00 AM	GU29 0YF	D	N	WEST SUSSEX

13	25/05/2006 12:00:00 AM	CW12 1GN	T	N	CHERSHIRE EAST
14	30/11/2006 12:00:00 AM	DE72 3BT	D	N	DERBYSHIRE
15	30/11/2006 12:00:00 AM	DE72 3BT	D	N	DERBYSHIRE
16	9/06/2006 12:00:00 AM	RG27 8AF	D	N	HAMPSHIRE
17	14/07/2006 12:00:00 AM	SO30 3HG	F	Y	HAMPSHIRE
18	null	null	null	null	null
19	null	null	null	null	null
20	null	null	null	null	null
21	17/03/2006 12:00:00 AM	L3 5XK	F	Y	MERSEYSIDE
22	6/10/2006 12:00:00 AM	WA9 4ST	S	N	MERSEYSIDE
23	17/02/2006 12:00:00 AM	NN2 7LR	S	N	NORTHAMPTONSHIRE
24	30/08/2006 12:00:00 AM	YO60 7HN	D	N	NORTH YORKSHIRE
25	31/07/2006 12:00:00 AM	SW2 2JL	F	N	GREATER LONDON
26	24/07/2006 12:00:00 AM	CF14 1BS	T	N	CARDIFF
27	17/10/2006 12:00:00 AM	YO61 3AX	T	N	NORTH YORKSHIRE
28	31/03/2006 12:00:00 AM	BN44 3WN	T	N	WEST SUSSEX
29	24/05/2006 12:00:00 AM	SP11 9ER	D	N	WILTSHIRE
30	25/08/2006 12:00:00 AM	CT4 7JR	S	N	KENT

Now, it can be seen that there are a number of null rows present in the table. In order to remove them, let us use Remove Blank Rows option from the Remove Rows option in the Home menu as shown below:

Now table which we have is -

Handover Date	PostCode	PropertyType	New Building	Location
26/08/2016 12:00:00 AM	RM10 8UU	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	W11 1AW	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	SW1X 0EJ	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	RM5 2AJ	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E9 7DP	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E9 5SH	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	SE9 1QG	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	SW16 5JZ	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	SE18 3JZ	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	SE13 5LR	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	N9 0XF	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	EN5 2LT	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	TW4 7AU	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	UB7 9PE	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	TW4 5EQ	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	UB6 9QD	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	NW2 6QL	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	UB6 9UD	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	EN3 5HR	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	RM8 3RS	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	IG3 9DE	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E11 3NP	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	RM3 8YR	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	RM13 7PA	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	IG11 7QS	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E17 4LF	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	IG1 1TS	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E16 4NR	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E16 3RF	T	N	GREATER LONDON
26/08/2016 12:00:00 AM	E7 0DJ	T	N	GREATER LONDON

Now let us change the data type of the Handover Date column by clicking on the Date type mentioned on the left side of the column header and then choose Date.

SalesPrice	Handover Date	PostCode	PropertyType	New Building	Location
112000	22/05/2006	MK13 7QS	F	N	MILTON KEYNES
90000	29/06/2006	CH5 7QN	S	N	CHESTER WEST AND CHESTER
250000	7/07/2006	DE5 3DE	T	N	DERBYSHIRE
157000	1/12/2006	M25 1HF	T	N	GREATER MANCHESTER
326500	24/11/2006	SW6 1JU	F	N	GREATER MANCHESTER
205000	17/03/2006	ST9 9PR	D	N	STOKE-ON-TRENT
105000	19/07/2006	IP3 8UY	F	N	SUFFOLK
93000	31/05/2006	NP19 0RW	F	N	NEWPORT
490000	27/04/2006	CV23 8DE	D	N	WARRICKSHIRE
86000	9/06/2006	CV1 5EH	T	N	WEST MIDLANDS
465000	9/02/2006	GU29 0YF	D	N	WEST SUSSEX
48995	15/09/2006	CB22 7QD	D	Y	CAMBRIDGE
120000	25/05/2006	CV12 1QN	T	N	CHESTER
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
325000	9/06/2006	RG27 8AF	D	N	HAMPSHIRE
199950	14/07/2006	SO30 3HG	F	Y	HAMPSHIRE
215000	17/03/2006	L3 5XX	F	N	MERSEY
471000	6/10/2006	WA9 4ST	S	N	MERSEY
138000	17/02/2006	NW2 7LR	S	N	NORTH YORKSHIRE
427500	30/08/2006	YO60 7HN	D	N	GREAT LONDON
222500	31/07/2006	SW2 2LJ	F	N	CARDIFF
116000	24/07/2006	CF14 1BS	T	N	NORTH YORKSHIRE
245000	17/10/2006	YO61 3AX	T	N	WEST SUSSEX
260000	31/03/2006	BW44 3WN	T	N	WILTSHIRE
465000	24/05/2006	SP11 9ER	D	N	WILTSHIRE

There are some errors in the column as there is a dashed line in the column header. Let us use the option of Remove errors from the Remove rows menu in the Home section.

SalesPrice	Handover Date	PostCode	PropertyType	New Building	Location
112000	22/05/2006	MK13 7QS	F	N	MILTON KEYNES
90000	29/06/2006	CH5 7QN	S	N	CHESTER WEST AND CHESTER
250000	7/07/2006	DE5 3DE	T	N	DERBYSHIRE
157000	1/12/2006	M25 1HF	T	N	GREATER MANCHESTER
326500	24/11/2006	SW6 1JU	F	N	GREATER MANCHESTER
205000	17/03/2006	ST9 9PR	D	N	STOKE-ON-TRENT
105000	19/07/2006	IP3 8UY	F	N	SUFFOLK
93000	31/05/2006	NP19 0RW	F	N	NEWPORT
490000	27/04/2006	CV23 8DE	D	N	WARRICKSHIRE
86000	9/06/2006	CV1 5EH	T	N	WEST MIDLANDS
465000	9/02/2006	GU29 0YF	D	N	WEST SUSSEX
48995	15/09/2006	CB22 7QD	D	Y	CAMBRIDGE
120000	25/05/2006	CV12 1QN	T	N	CHESTER
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
325000	9/06/2006	RG27 8AF	D	N	HAMPSHIRE
199950	14/07/2006	SO30 3HG	F	Y	HAMPSHIRE
215000	17/03/2006	L3 5XX	F	N	MERSEY
471000	6/10/2006	WA9 4ST	S	N	MERSEY
138000	17/02/2006	NW2 7LR	S	N	NORTH YORKSHIRE
427500	30/08/2006	YO60 7HN	D	N	GREAT LONDON
222500	31/07/2006	SW2 2LJ	F	N	CARDIFF
116000	24/07/2006	CF14 1BS	T	N	NORTH YORKSHIRE
245000	17/10/2006	YO61 3AX	T	N	WEST SUSSEX
260000	31/03/2006	BW44 3WN	T	N	WILTSHIRE
465000	24/05/2006	SP11 9ER	D	N	WILTSHIRE

The final table is as follows:

SalesPrice	Handover Date	PostCode	PropertyType	New Building	Location
112000	22/05/2006	MK13 7QS	F	N	MILTON KEYNES
90000	29/06/2006	CH5 7QN	S	N	CHESTER WEST AND CHESTER
250000	7/07/2006	DE5 3DE	T	N	DERBYSHIRE
157000	1/12/2006	M25 1HF	T	N	GREATER MANCHESTER
326500	24/11/2006	SW6 1JU	F	N	GREATER MANCHESTER
205000	17/03/2006	ST9 9PR	D	N	STOKE-ON-TRENT
105000	19/07/2006	IP3 8UY	F	N	SUFFOLK
93000	31/05/2006	NP19 0RW	F	N	NEWPORT
490000	27/04/2006	CV23 8DE	D	N	WARRICKSHIRE
86000	9/06/2006	CV1 5EH	T	N	WEST MIDLANDS
465000	9/02/2006	GU29 0YF	D	N	WEST SUSSEX
48995	15/09/2006	CB22 7QD	D	Y	CAMBRIDGE
120000	25/05/2006	CV12 1QN	T	N	CHESTER
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
269950	30/11/2006	DE72 3BT	D	N	DERBYSHIRE
325000	9/06/2006	RG27 8AF	D	N	HAMPSHIRE
199950	14/07/2006	SO30 3HG	F	Y	HAMPSHIRE
215000	17/03/2006	L3 5XX	F	N	MERSEY
471000	6/10/2006	WA9 4ST	S	N	MERSEY
138000	17/02/2006	NW2 7LR	S	N	NORTH YORKSHIRE
427500	30/08/2006	YO60 7HN	D	N	GREAT LONDON
222500	31/07/2006	SW2 2LJ	F	N	CARDIFF
116000	24/07/2006	CF14 1BS	T	N	NORTH YORKSHIRE
245000	17/10/2006	YO61 3AX	T	N	WEST SUSSEX
260000	31/03/2006	BW44 3WN	T	N	WILTSHIRE
465000	24/05/2006	SP11 9ER	D	N	WILTSHIRE

In the Property types table also, let us set the first row as header by clicking on the Use First Row as Header option.

Column1	Type
Details	D
Detailed	D

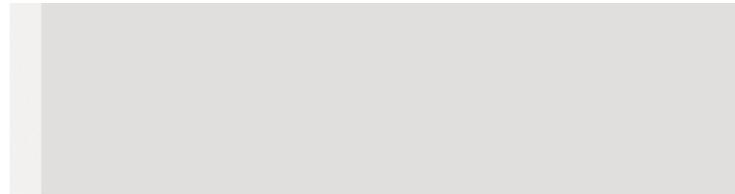
The final table is as shown below:

	A ^B _C Details	A ^B _C Type
1	Detached	D
2	Flat	F
3	Other	O
4	Semi	S
5	Terraced	T

Now, click on Close and Apply to apply these changes in the tables. After this the power query editor window will be closed.

3. In order to change the format of the dates shown in the Handover Date table, let us go to the Data view in Power BI Desktop and select Handover Date column and in the Column tools menu go to Format and select the desired date format.

4. In Power BI Desktop in the model view, let us create a relationship between the tables to build our model. To create the relationship, drag the PropertyType field from the House Price on the Type field of Property types table.

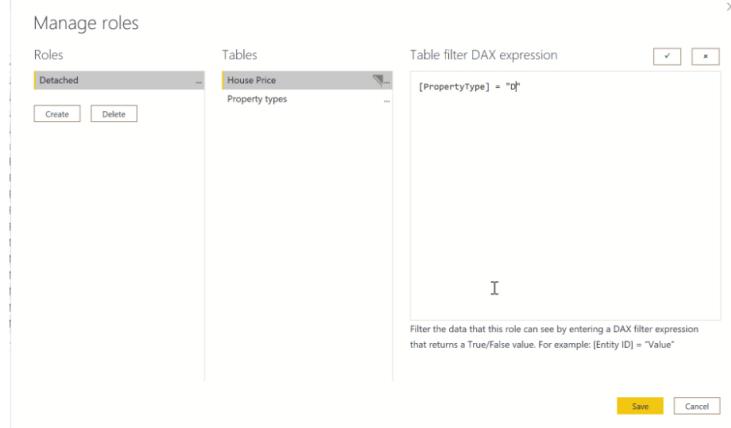


5. Now, in the reports view, create a table visual and display the Handover Date, Post Code, Location, Sales Price by adding these fields in the values section of the visual in the visualisation pane.

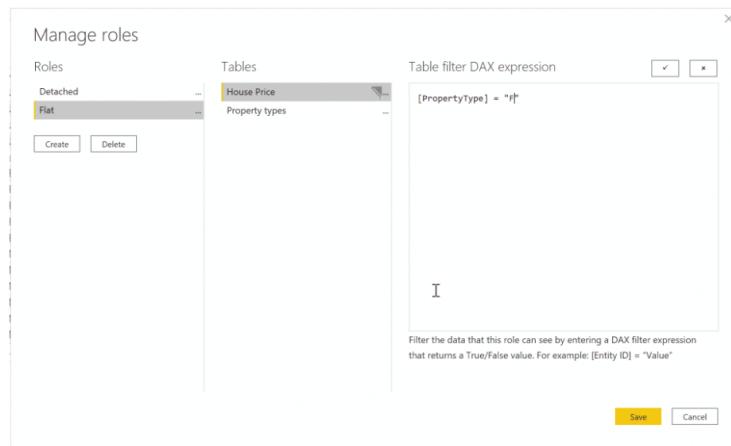
6. Now, to create different roles for different house types using the Property Type code, let us go to Modelling section and then click on Manage Roles.

In the pop up which comes up click on Create.

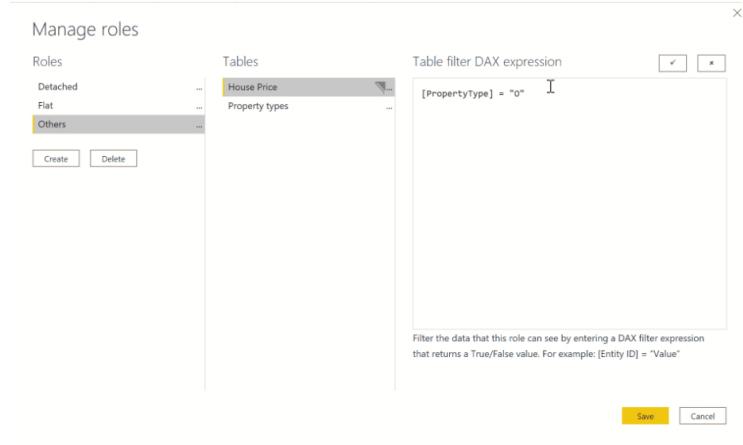
Now for the Detached type, let us create role as follows:



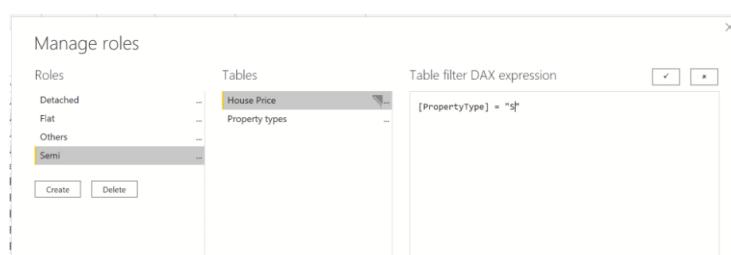
Another role for Flat type,



For Others role,

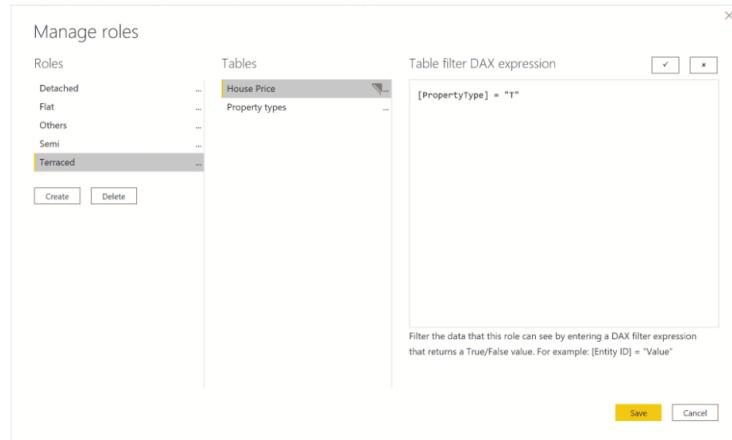


For Semi Type, use the following DAX expression to create role,





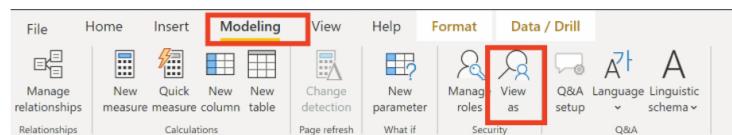
Lastly for Terraced type role,



Now click on Save.

The roles are created.

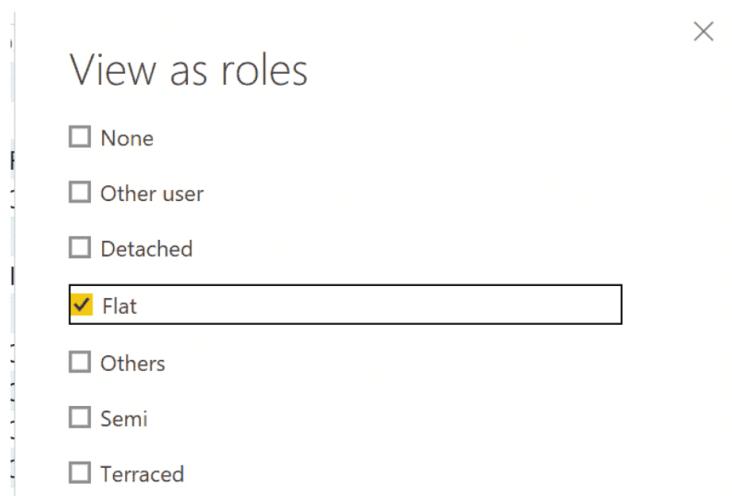
7. We can use the View as option in the Modelling menu to view the created roles.



Click on the check box besides any role and the table in the reports view will be filtered using that role.

In order to view that the role is applied correctly I have added the Product Type column in the table in the reports view.

Let us choose the role of Flat to view the product type with Code F. Let us tick the checkbox besides the Flat role and then click OK.





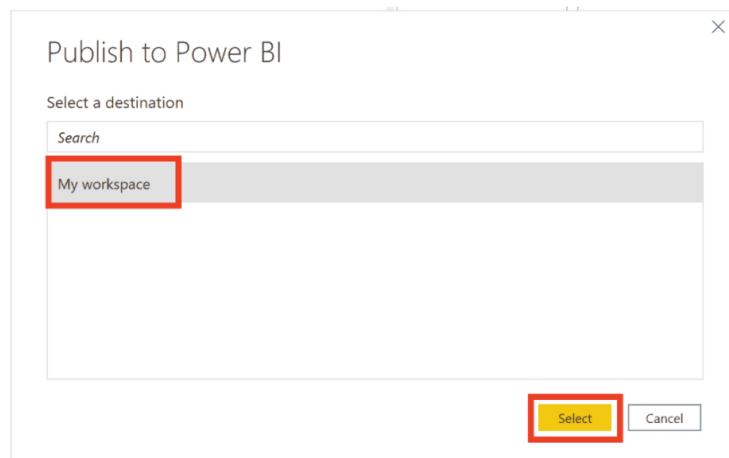
The table in the reports view below shows that the role is applied properly as the product type of code F is only present in the table and the rest of them are filtered out. Similarly, test the other roles too to make sure that there are no issues in any of the roles.

Handover Date	PostCode	Location	SalesPrice	PropertyType
20 January 1995	BN2 0GE	BRIGHTON AND HOVE	48000	F
31 January 1995	NE33 3DZ	TYNE AND WEAR	59500	F
3 February 1995	SW5 0SJ	GREATER LONDON	81250	F
24 February 1995	RH4 3JB	SURREY	58000	F
24 February 1995	SE19 3ST	GREATER LONDON	25000	F
10 March 1995	W9 3AP	GREATER LONDON	59000	F
15 March 1995	NW2 7RJ	GREATER LONDON	55000	F
24 March 1995	CRO 6JA	GREATER LONDON	33000	F
19 May 1995	SW4 9HE	GREATER LONDON	75000	F
31 May 1995	TN37 7BE	EAST SUSSEX	31000	F
30 June 1995	TN4 8ES	KENT	57500	F
7 July 1995	PE28 3YQ	CAMBRIDGESHIRE	29995	F
28 July 1995	TW10 6AP	GREATER LONDON	187000	F
31 August 1995	KT2 7PW	GREATER LONDON	45500	F
31 August 1995	NG5 7GR	NOTTINGHAMSHIRE	26000	F
8 September 1995	CR2 6JB	GREATER LONDON	60000	F
Total			6249388795	

- From the Home menu in Power BI Desktop, click on the Publish button to publish the report on Power BI Service. It will prompt to save the report, click on Save.



Now, it will prompt to choose the workspace. Choose the desired workspace, here My Workspace is selected and then click on Select.



Click on the report name by which you have saved the report to open Power BI Service.

PUBLISHING TO POWER BI

✓ Success!

[Open 'Assignment 11.pbix' in Power BI](#)

[Get Quick Insights](#)



Did you know?

You can create a portrait view of your report, tailored for mobile phones.
On the View tab, select **Mobile Layout**. [learn more](#)

[Got it](#)

Sign in into Power BI Service using the account which you have setup and the report will be shown.

In order to test the roles, Go to Workspace-> My Workspace -> Dataset -> Assignment 11. Click on the three dots besides this data set and then choose Security.

The screenshot shows the Power BI Service interface. On the left, there's a sidebar with options like Home, Favorites, Create, Datasets, Apps, Learn, Workspaces, and My workspace. Under 'Datasets', 'Assignment 11' is listed. A context menu is open over 'Assignment 11', with the 'Security' option highlighted by a red box. Other options in the menu include Analyze in Excel, Create report, Delete, Refresh now, Rename, Schedule refresh, Settings, Download the .pbix, Download the .rdl, Manage permissions, and View lineage.

There will be a pop for Row Level Security, in that for each role add the email address of the user.

Row-Level Security

The screenshot shows the 'Members (1)' section of the Row-Level Security dialog. It lists one member: 'People or groups who belong to this role'. Below this is an input field 'Enter email addresses' and a large 'Add' button.

Now in order to test the roles, there will be three dots beside each role, click on that and then select Test as role.

Row-Level Security

The screenshot shows the 'Test as role' section of the Row-Level Security dialog. It lists four roles: 'Flat (1)', 'Others (1)', 'Semi (1)', and 'Terraced (1)'. Below this is a button 'Test as role' and an input field 'Enter email addresses' with a large 'Add' button.

Now, this will open a window which shows reports visible only to the user which is

associated with the Detached role. This can be confirmed by looking into the values of the Property Type column which shows only 'D' type properties.

The screenshot shows a Power BI report interface. At the top, there's a navigation bar with options like Back to Row-Level Security, Now viewing as: Detached, File, Export, Share, Chat in Teams, Comment, and Subscribe. Below the navigation bar is a message: "We updated the look of reports. Take a tour, and we'll show you how to get around." The main area contains a table with columns: Handover Date, PostCode, Location, SalesPrice, and PropertyType. The last column, PropertyType, has all its cells highlighted with a red border. The table includes a summary row at the bottom labeled "Total" with the value "9253812556".

Similar action can be performed to test different roles.

This completes assignment 11

Assignment 12:

For this assignment, we were provided a data set named Zoo and the interesting fact- it's about Pokemons. As always we import the data on PowerBi desktop and select the **Transform Data** option from the Home menu to make certain changes to the data

The screenshot shows a Power BI data editor window with a table titled "National Pokédex". The table has five columns: Column1, Column2, Column3, Column4, and Column5. The data consists of 15 rows, each containing a National Pokédex number, English name, Japanese name, Nature Symbol, and Evolves into. The first few rows are: 1 Bulbasaur, Fushigidane, Grass, Ivysaur (#002); 2 Ivysaur, Fushigisou, Grass, Venusaur (#003); 3 Venusaur, Fushigibana, Grass, Does not evolve; etc.

To get the column names we select **Make First Row as Header** option from the Home menu. Then change the name of the first column to National Pokédex number and then change the data type of that column to the whole number.

The screenshot shows the same "National Pokédex" table after transformation. The first row now serves as the header with columns: English name, Japanese name, Nature Symbol, and Evolves into. The data rows remain the same, with the first row being the header: English name, Japanese name, Nature Symbol, Evolves into.

Creating 4 new pages rename them as **Creatures page** for Images, **Fire for Fire monsters** table, **Grass for Grass monsters** table, **Water for Water monsters** table.

Name of Pages

Now for each of the pages created, create individual report on each of the page.

Note: Relevant report has relevant Pokémons listed, as shown below:

Fire Creature



National Pokédex	English name	Japanese name	Evolves into	Nature Symbol
4	Charmander	Hitokage	Charmeleon (#005)	Fire
5	Charmeleon	Lizardo	Charizard (#006)	Fire
6	Charizard	Lizardon	Does not evolve	Fire
37	Vulpix	Rokon	Ninetales (#038)	Fire
38	Ninetales	Kyukon	Does not evolve	Fire
58	Growlithe	Gardie	Arcanine (#059)	Fire
59	Arcanine	Windie	Does not evolve	Fire
77	Ponyta	Ponyta	Rapidash (#078)	Fire
78	Rapidash	Gallop	Does not evolve	Fire
126	Magmar	Boober	Magmortar (#467)	Fire
136	Flareon	Booster	Does not evolve	Fire
146	Moltres	Fire	Does not evolve	Fire

Fire report

Grass Creatures



National Pokédex	English name	Japanese name	Evolves into	Nature Symbol
1	Bulbasaur	Fushigidane	Ivysaur (#002)	Grass
2	Ivysaur	Fushigisou	Venusaur (#003)	Grass
3	Venusaur	Fushigibana	Does not evolve	Grass
43	Oddish	Nazonokusa	Gloom (#044)	Grass
44	Gloom	Kusaihana	Vileplume (#045), x000D, Belllossen (#182)	Grass
45	Vileplume	Ruffresia	Does not evolve	Grass
69	Bellsprout	Madatsubomi	Weepinbell (#070)	Grass
70	Weepinbell	Utsudon	Victreebel (#071)	Grass
71	Victreebel	Utsubot	Does not evolve	Grass
102	Exeggute	Tamatama	Exeggcutor (#103)	Grass
103	Exeggutor	Nassy	Does not evolve	Grass
114	Tangela	Monjara	Tangrowth (#465)	Grass

Grass report

Water Creatures



National Pokédex	English name	Japanese name	Evolves into	Nature Symbol
7	Squirtle	Zenigame	Wartortle (#008)	Water
8	Wartortle	Kameii	Blastoise (#009)	Water
9	Blastoise	Kamei	Does not evolve	Water
54	Psyduck	Koduck	Golduck (#055)	Water
55	Golduck	Golduck	Does not evolve	Water
60	Poliwag	Nyoromo	Poliwirth (#061)	Water
61	Poliwhirl	Nyorozo	Poliwirth (#062), x000D, Politoed (#186)	Water
62	Poliwrath	Nyorobon	Does not evolve	Water
72	Tentacool	Menokurage	Tentacruel (#073)	Water
73	Tentacruel	Dokukurage	Does not evolve	Water



79	Slowpoke	Yadon	Slowbro (#080), x000D_ Slowking (#199)	Water
80	Slowbro	Yadoran	Does not evolve	Water
86	Seel	Pawou	Dewgong (#087)	Water
87	Dewgong	Jugon	Does not evolve	Water
90	Shellder	Sheldler	Cloyster (#091)	Water
91	Cloyster	Parshen	Does not evolve	Water
98	Krabby	Crab	Kingler (#099)	Water
99	Kingler	Kingler	Does not evolve	Water
116	Horsea	Tattu	Seadrea (#117)	Water
117	Seadra	Seadra	Kingdra (#230)	Water
118	Golddeen	Tosakinto	Seakcano (#119)	Water

Water report

Once the report has been created on three new pages, go ahead and hide them.



Once the reports are created, we need to create bookmarks. To create bookmark, we need to go to **View** menu, and select **Bookmarks** under Show panes then create bookmarks respectively as Grass , Water and Fire .

Note: Make sure the bookmark is created while you are in individual report. For example, to create Fire Bookmark, make sure you are in the Fire page.

Now we need to provide the actions, for that we need to go to Creatures report and go to **Action** under **Format image** and turn it on, then choose the type as **Bookmark** and select the required bookmark .

At the end we will attach a back button with all the reports. To insert back button, we need to go to the Insert menu and select **back button** under Buttons.

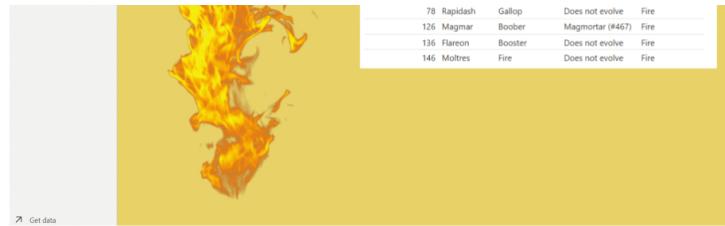
After creating the report we will publish it in the PowerBi Service as the same way we published Assignment 11.

The below are the Power BI Service images after publishing the report :

National Pokédex	English name	Japanese name	Evolves into	Nature Symbol
1	Fushigishou	Ikyoura (#002)	Gross	
2	Fushigishou	Venusaur (#003)	Gross	
3	Fushigishana		Does not evolve	
4	Hitokage	Chameleon (#005)	Fire	
5	Lizardo	Charizard (#006)	Fire	
6	Lizardon		Does not evolve	
7	Zengame	Wartortle (#008)	Water	
8	Kanek	Blastoise (#009)	Water	
9	Kanek		Does not evolve	
10	Caterpie	Metapod (#011)	Bug	
11	Transel	Butterfree (#012)	Bug	
12	Butterfree		Does not evolve	
13	Beedle	Kakuna (#014)	Bug	
14	Cocoon	Beedrill (#015)	Bug	
15	Spear		Does not evolve	
16	Popo	Pidgeotto (#017)	Normal	
17	Pigeon	Pidgeot (#018)	Normal	

By clicking relevant image, you can access more detail about Pokémon.

National Pokédex	English name	Japanese name	Evolves into	Nature Symbol
4	Chamander	Hitokage	Charmeleon (#005)	Fire
5	Charmeleon	Lizardo	Charizard (#006)	Fire
6	Charizard	Lizardon	Does not evolve	Fire
37	Vulpix	Rokon	Ninetales (#038)	Fire
38	Ninetales	Kyukon	Does not evolve	Fire
58	Grovilthe	Garde	Arcanine (#059)	Fire
59	Arcanine	Windie	Does not evolve	Fire
77	Ponyta	Ponyta	Rapidash (#078)	Fire



A screenshot of a Power BI report titled "Grass Creatures". The main visual is a green background featuring a green grassy field. Below it is a table with the following data:

	National Pokédex	English name	Japanese name	Evolves into	Nature	Symbol
1	Bulbasaur	Fushigidane	Ivysaur (#002)		Grass	
2	Ivysaur	Fushigisou	Venusaur (#003)		Grass	
3	Venusaur	Fushigibana		Does not evolve	Grass	
43	Oddish	Nazognokusa	Gloom (#044)		Grass	
44	Gloom	Kusahana	Vileplume (#045)	#00D...	Grass	
45	Vileplume	Ruffesia		Does not evolve	Grass	
69	Bellsprout	Madatsumoni	WEEPINBELL (#070)		Grass	
70	Weepinbell	Utsudon	Vicreebel (#071)		Grass	
71	Vicreebel	Utsubot		Does not evolve	Grass	
102	Exeggcute	Tamatama	Exeggutor (#103)		Grass	
103	Exeggutor	Nassy		Does not evolve	Grass	
114	Tangela	Monjara	Tangrowth (#465)		Grass	

A screenshot of a Power BI report titled "Water Creatures". The main visual is a blue background featuring a large blue water droplet. Below it is a table with the following data:

	National Pokédex	English name	Japanese name	Evolves into	Nature	Symbol
7	Squirtle	Zenigame	Wartortle (#008)		Water	
8	Wartortle	Kameii	Blastoise (#009)		Water	
9	Blastoise	Kamei		Does not evolve	Water	
54	Psyduck	Koduck	Golduck (#055)		Water	
55	Golduck	Golduck		Does not evolve	Water	
60	Poliwag	Nyoromo	Poliwirl (#061)		Water	
61	Poliwirl	Nyorozo	Polivirat (#062)	#00D...	Water	
62	Polivirath	Nyoredon		Does not evolve	Water	
72	Tentacool	Menokurage	Tentacruel (#073)		Water	
73	Tentacruel	Dokikurage		Does not evolve	Water	
79	Slowpoke	Yadon	Slowbro (#080)	#00D...	Water	
				Slowking (#199)		
80	Slowbro	Yadon		Does not evolve	Water	
86	Seel	Pawou	Dewgong (#087)		Water	
87	Dewgong	Jugon		Does not evolve	Water	
90	Shellder	Shellder	Cloyster (#091)		Water	
91	Cloyster	Parshen		Does not evolve	Water	
98	Krabby	Crab	Kingler (#099)		Water	
99	Kingler	Kingler		Does not evolve	Water	
116	Horsea	Tattu	Seadeira (#117)		Water	
117	Seadra	Seadra	Kingdra (#230)		Water	

Assignment 13:

For Assignment 13 we are required to create Tooltips and usage of Tooltips.

Tasks:

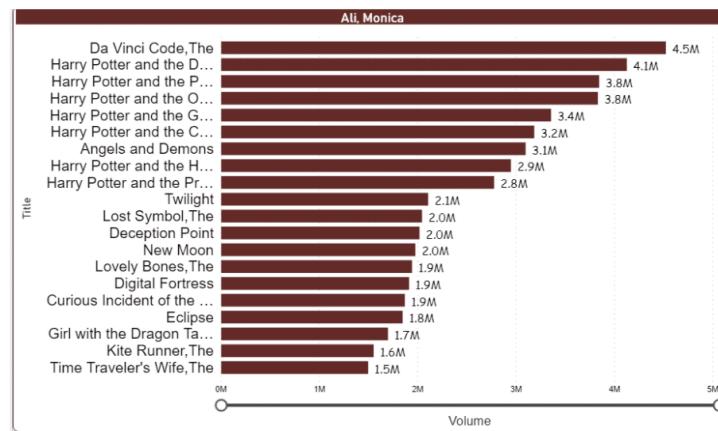
- Open the Power BI report file in the above folder. It shows the 100 bestselling books since 1998.
- Create a tooltip page to show the volume of sales for each title.
- Assign this page to be the tooltip for the original visual. What you might see if you hover over Bill Bryson, for example.
- If you still have time, and want a challenge, create and display a measure to show the name of the author in your tooltip. The report page tooltip now shows the name of the author chosen in the title.

- Save & Publish as Authors Info

Solutions:

- Create a new page. Create a **Bar Graph** Report with **Volume** and **Title columns** as data fields and **Title** as " **Books for this Author**" . From the format option Enable Tooltip, select Type as "Report page". "**Keep all filters**" should be on under Fields Tooltip. From Page information under Format, enable Tooltip. Hide the Tooltip Page.
- Select "List of books" page. From the format option Enable Tooltip, select Type as "Report page" , select Page as "Tooltip". "**Keep all filters**" should be on under Fields Tooltip. From Page information under Format, enable Tooltip.
- To show the name of Author on Tooltip: Click on Tooltip page. Select the report. From the format section select Title and click on "fx". Select Field Value for Format by, Select First Author for Based on Field, Select First for Summarization. Click Ok.
- Go to "List of books" page. Hover the cursor on any Authors name and the Tooltip will display the details as required.
- From Home tab, click on Publish to publish the report on Power BI Service.

Following are the Visual outputs of above steps:



Tooltip Created

Title text

Format by

Field value

Based on field

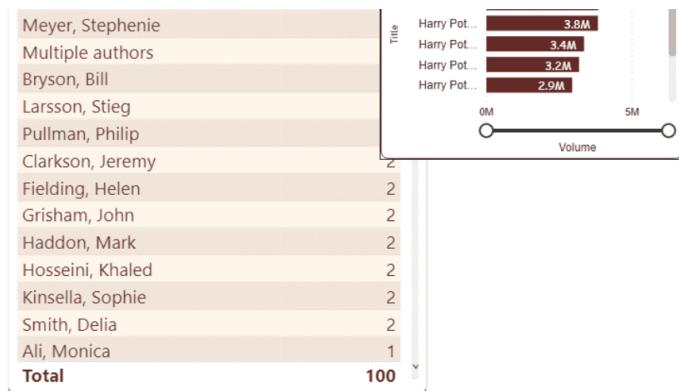
First Author

Summarization

First

Measure to show the name of the author in tooltip





Tooltip according to Authors Name

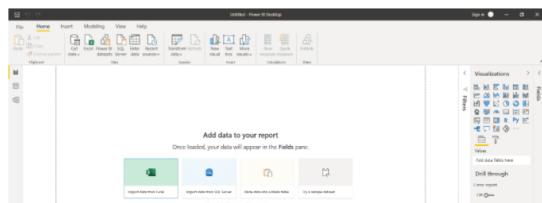
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