Sessions- 5 & 6
Practical-3

DAX-Creating Table, Columns & Matrixes

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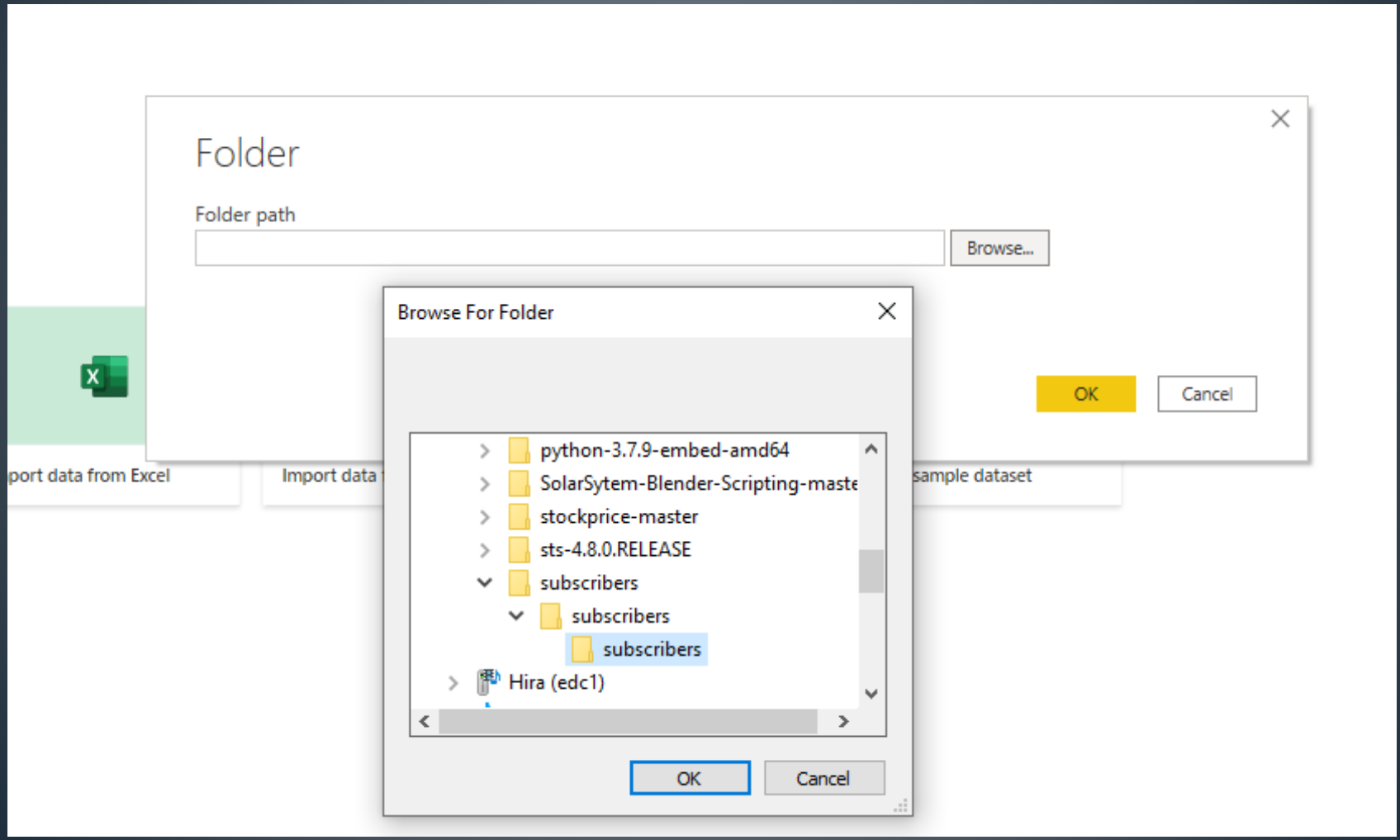
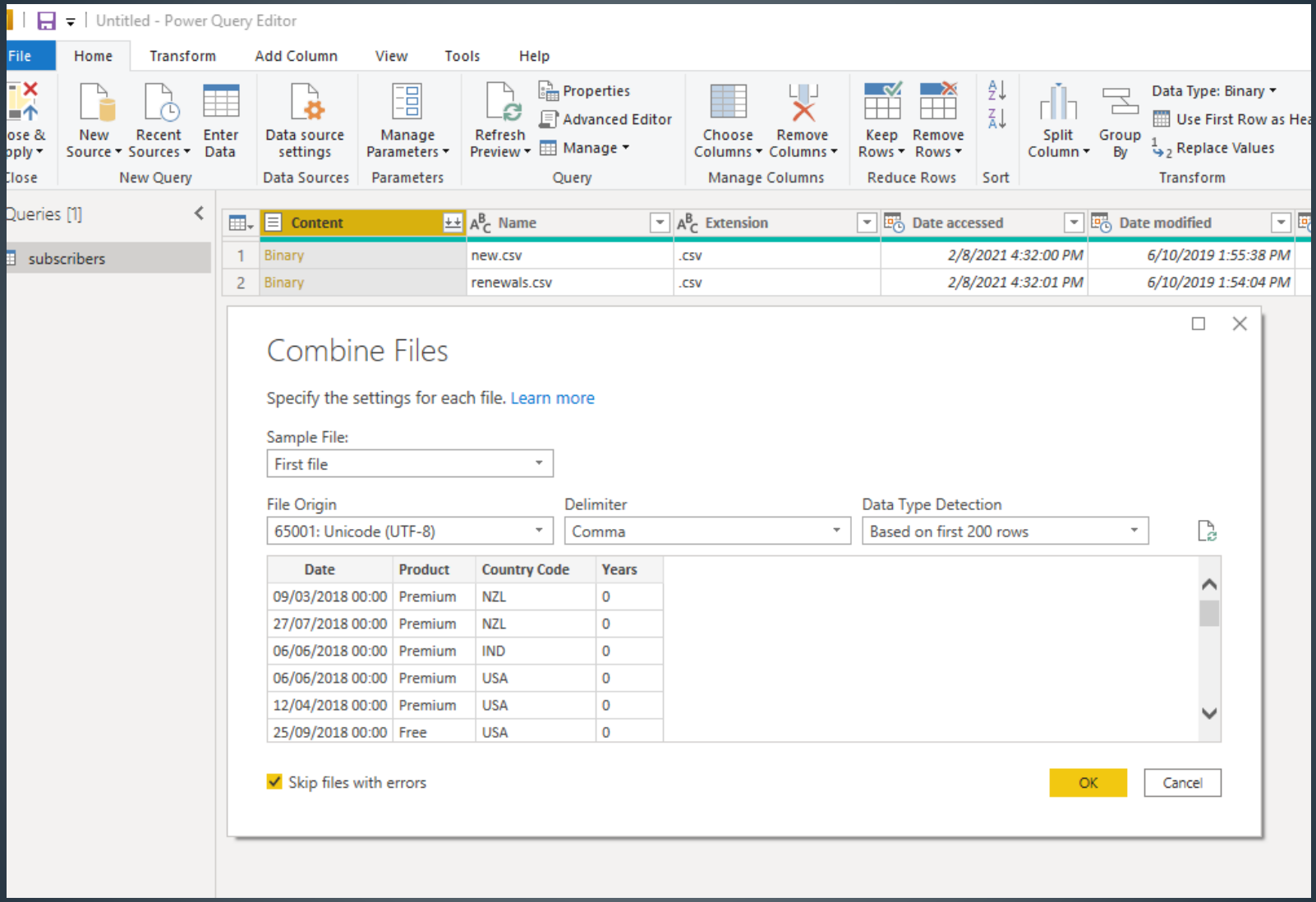
Road Map

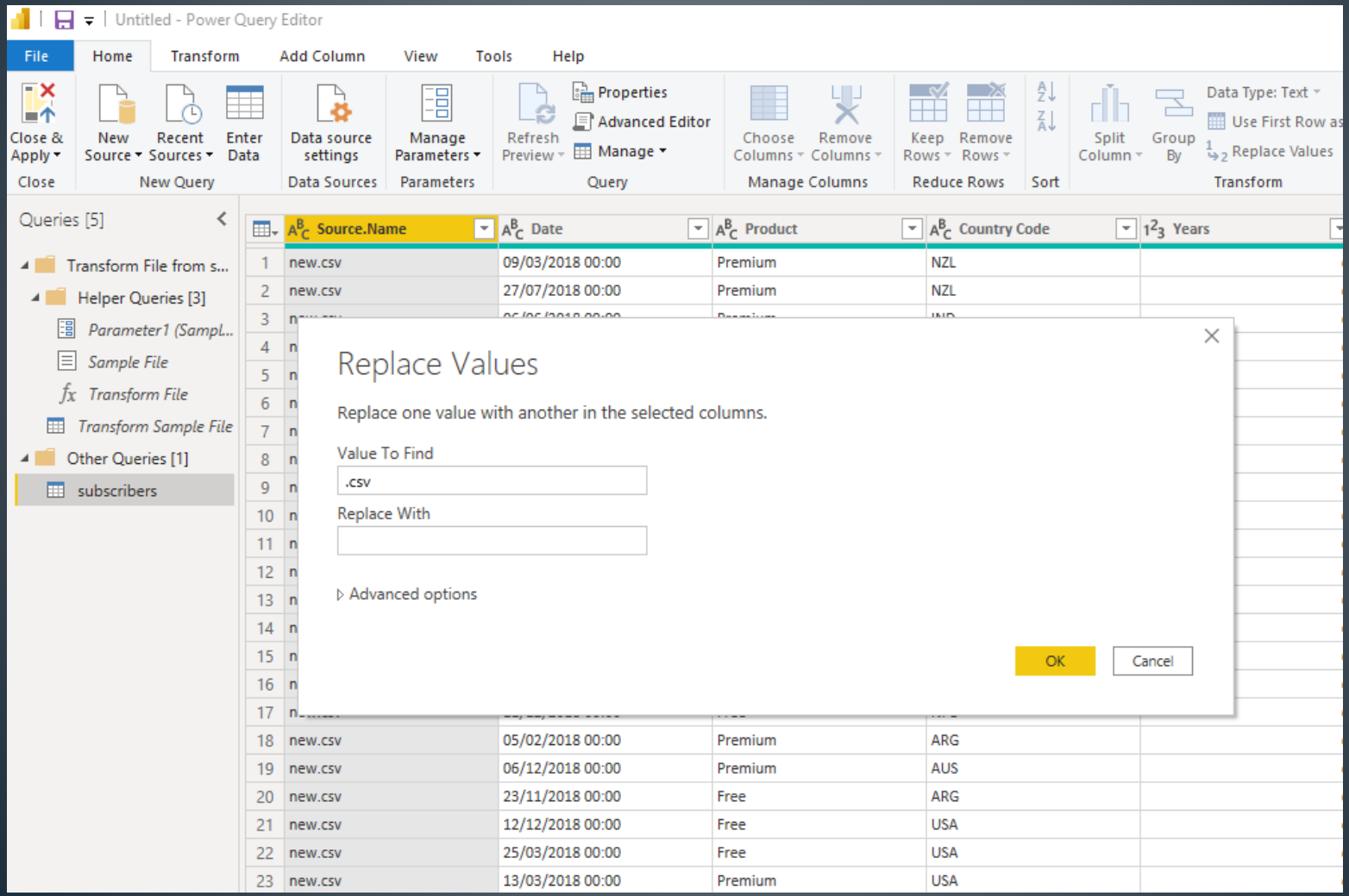
- Follow steps 1 to 31 and Practice them.
- Use Subscribers main Folder for this practical which I shared with you all last sessions which includes three types of files data sources (Folder, Excel and text)

1. Get Data (Subscriber's Folder) → Transform Data → Combine

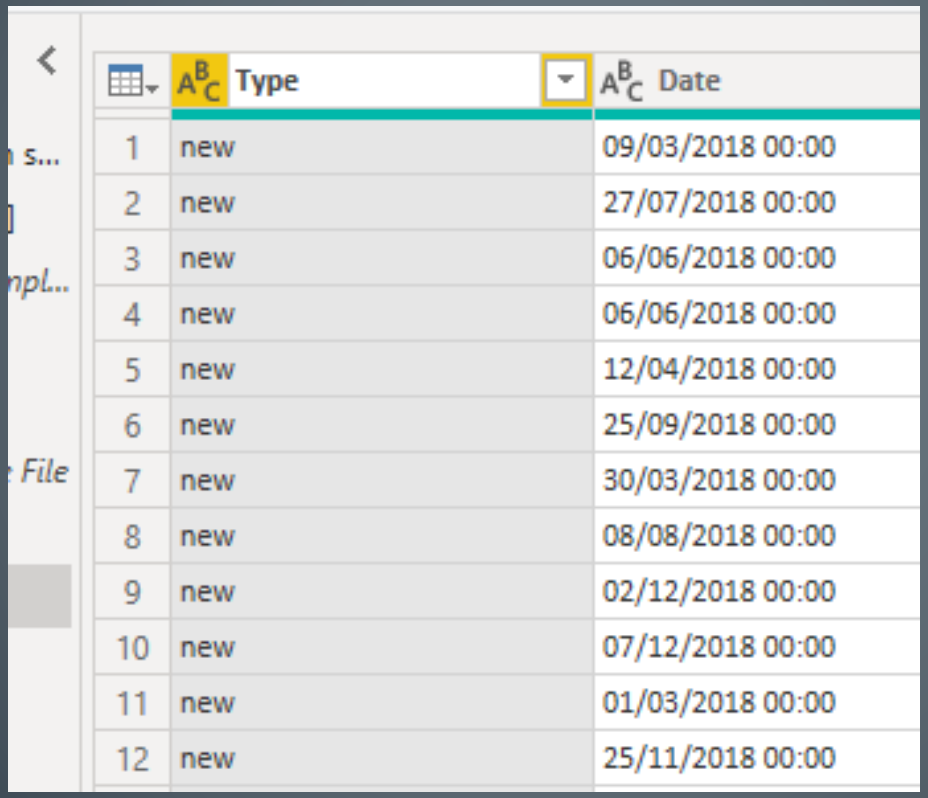



Untitled - Power Query Editor
File
Home
Transform
Add Column
View
Tools
Help
New Source
Recent Sources
Enter Data
Data source settings
Manage Parameters
Refresh Preview
Properties
Advanced Editor
Manage
Choose Columns
Remove Columns
Keep Rows
Remove Rows
Split Column
Group By
Data Type: Binary
Use First Row as Hea
Replace Values
New Query
Data Sources
Parameters
Query
Manage Columns
Reduce Rows
Sort
Transform
Queries [1]
subscribers
Content
Name
Extension
Date accessed
Date modified
1 Binary new.csv .csv 2/8/2021 4:32:00 PM 6/10/2019 1:55:38 PM
2 Binary renewals.csv .csv 2/8/2021 4:32:01 PM 6/10/2019 1:54:04 PM
Combine Files
Specify the settings for each file. Learn more
Sample File:
First file
File Origin
65001: Unicode (UTF-8)
Delimiter
Comma
Data Type Detection
Based on first 200 rows
Date Product Country Code Years
09/03/2018 00:00 Premium NZL 0
27/07/2018 00:00 Premium NZL 0
06/06/2018 00:00 Premium IND 0
06/06/2018 00:00 Premium USA 0
12/04/2018 00:00 Premium USA 0
25/09/2018 00:00 Free USA 0
Skip files with errors
OK
Cancel

2. Source.Name (.csv) → Replace values

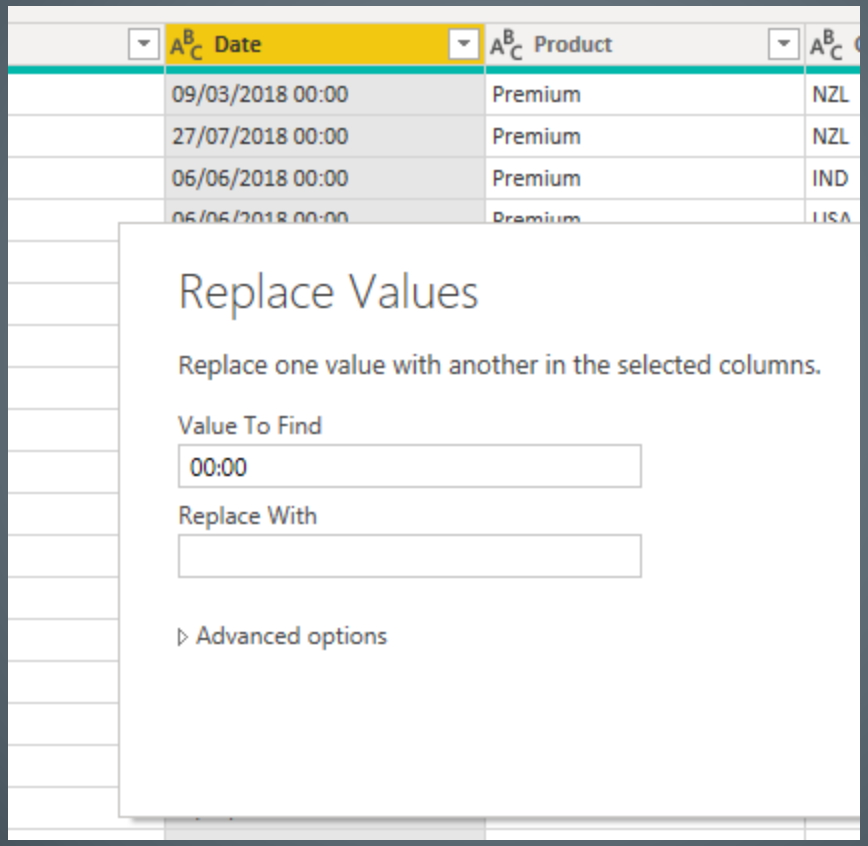


3. Source.Name → (Rename) Type

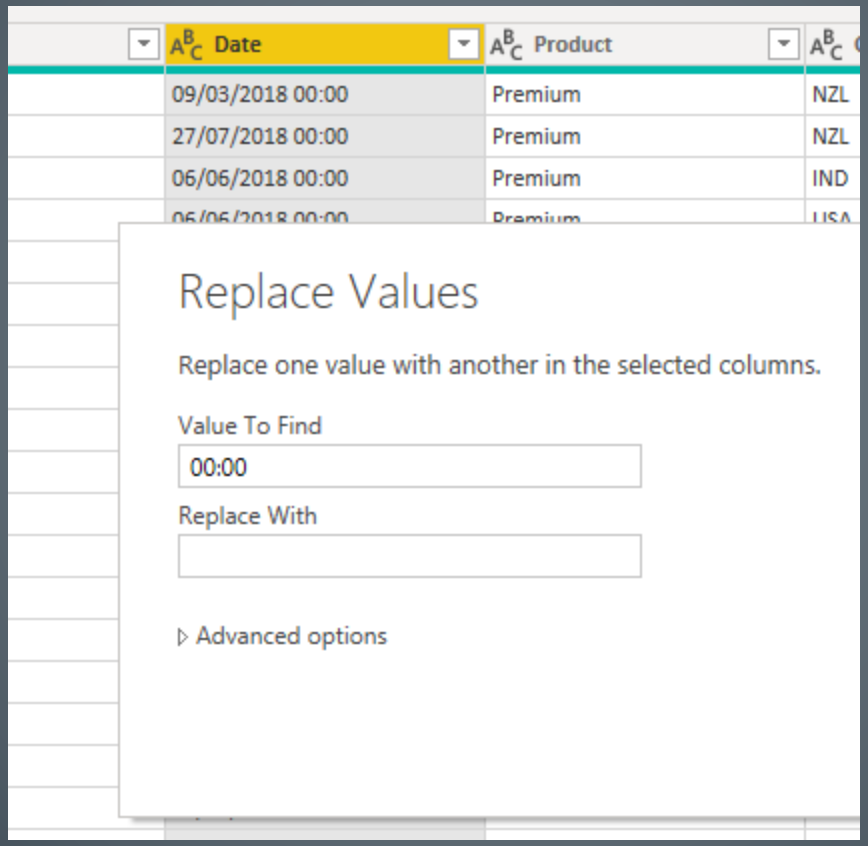


	Type	Date
1	new	09/03/2018 00:00
2	new	27/07/2018 00:00
3	new	06/06/2018 00:00
4	new	06/06/2018 00:00
5	new	12/04/2018 00:00
6	new	25/09/2018 00:00
7	new	30/03/2018 00:00
8	new	08/08/2018 00:00
9	new	02/12/2018 00:00
10	new	07/12/2018 00:00
11	new	01/03/2018 00:00
12	new	25/11/2018 00:00

4. Date (00:00)→ Replace



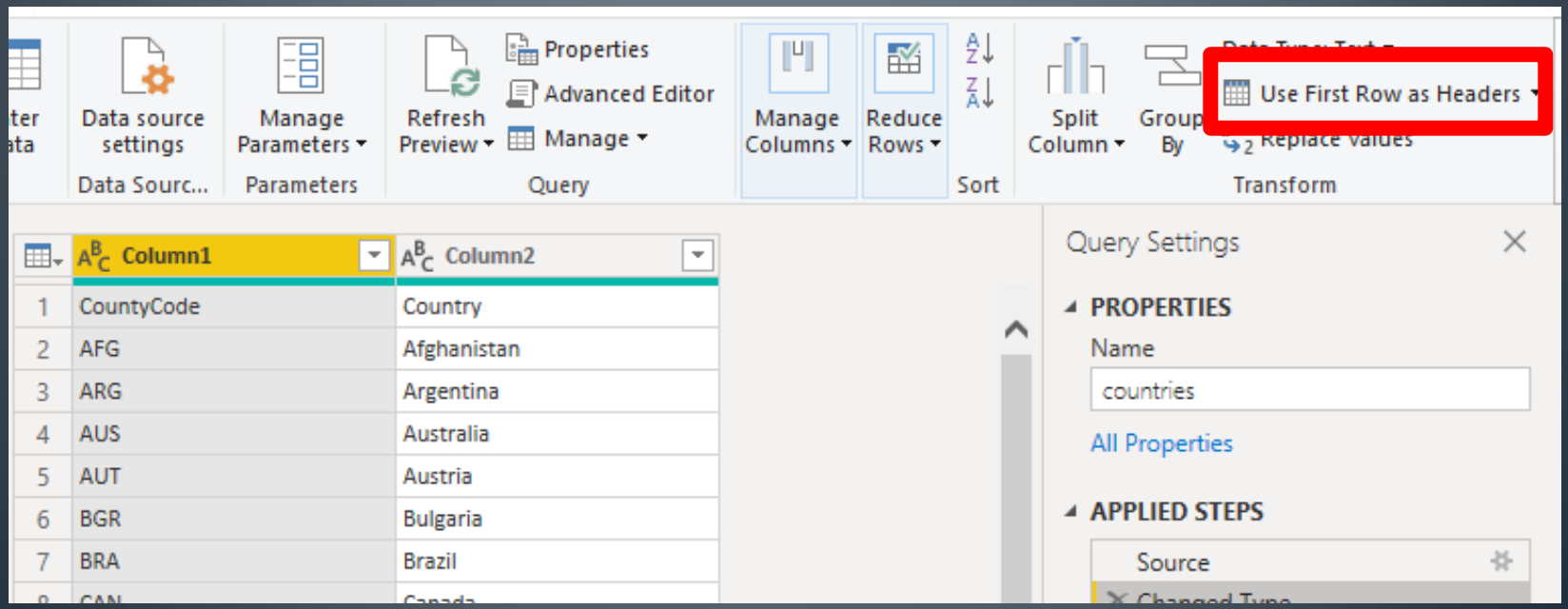
5. Date (00:00)→ Replace



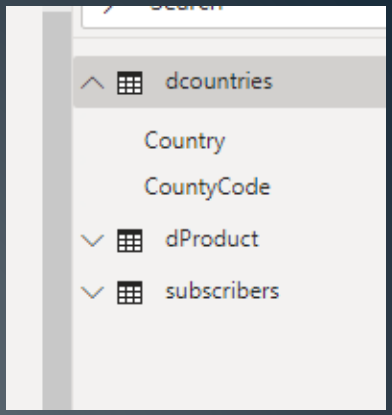
6. Get Data from Excel(packages) file

7. Get Data from Text(countries) file

8. Change Column Header in text file

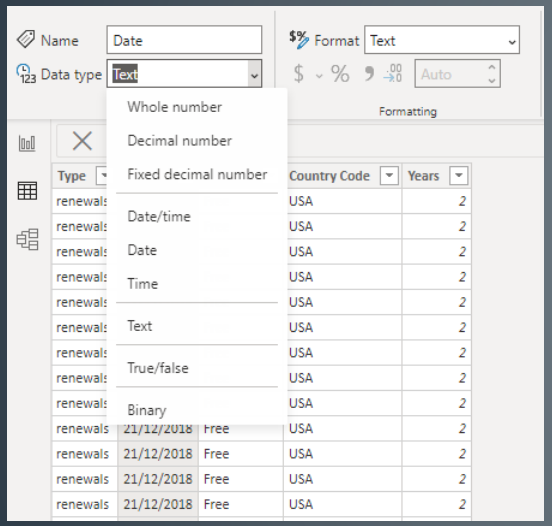


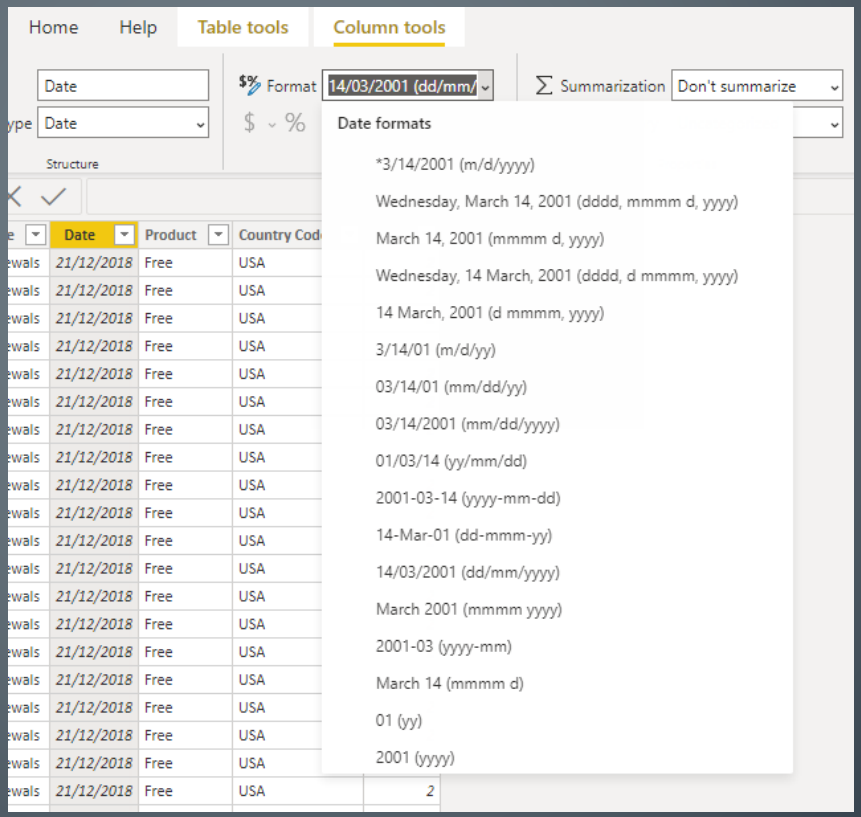
9. Rename countries → dcountries



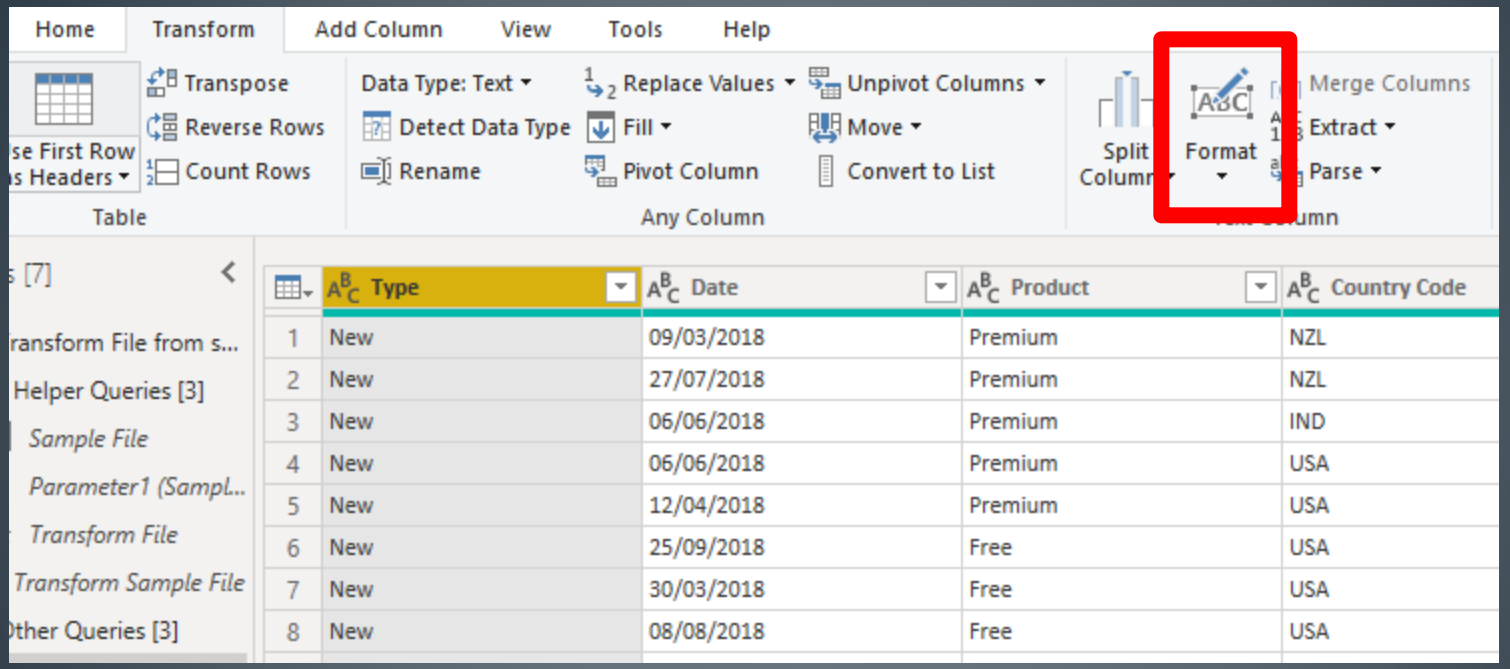
10. Date (Type)→Date

11. Format it in to dd/mm/yyyy



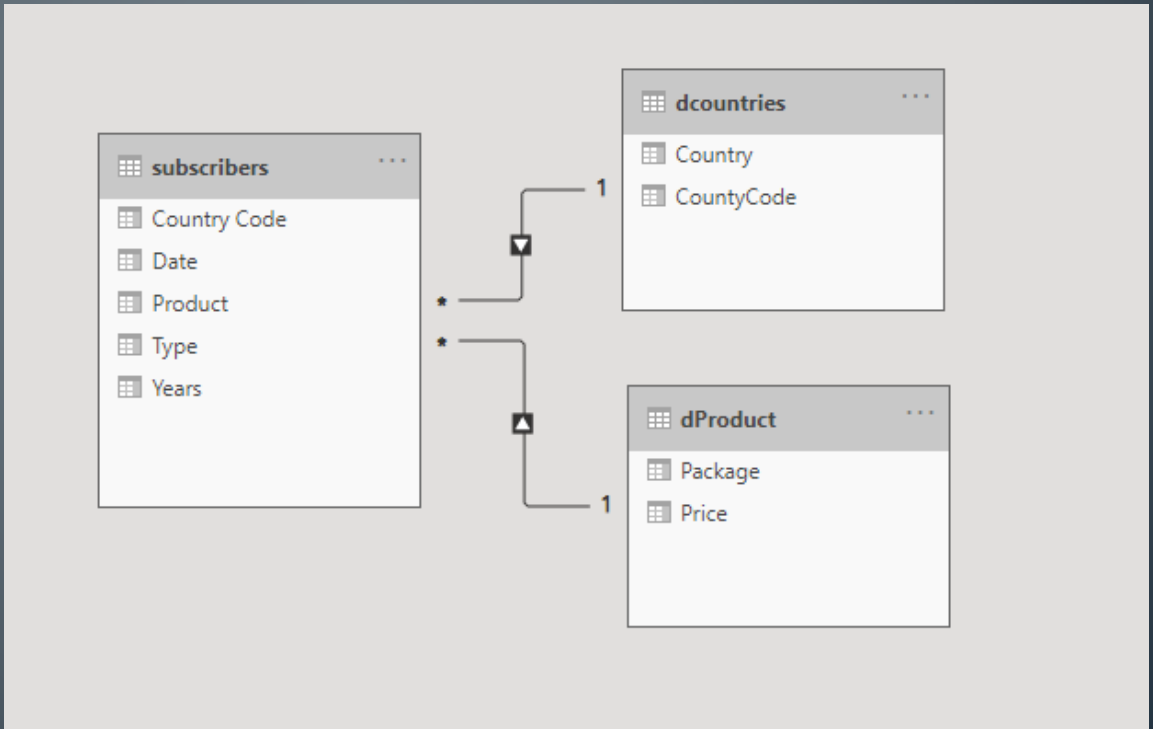


12. Type(new, renew)→Capitalize values(New, Renew)



13. Data Model Relationship

subscribers	dcountries	dProduct
Country Code	Country Code	
Product		Package



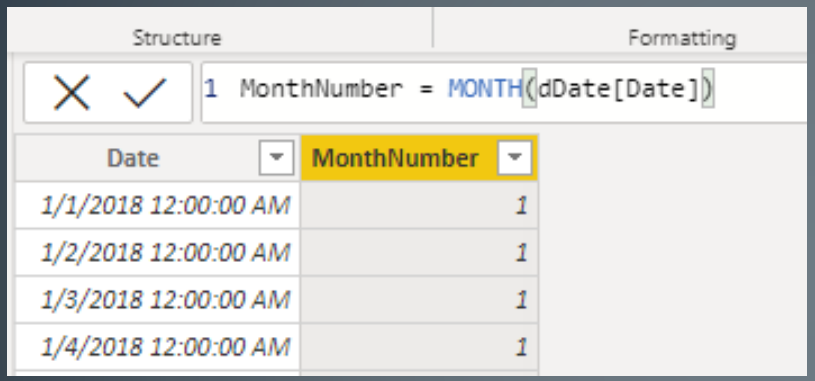
14. Creating New Table Using DAX

Create a table which includes 365 Days in the year using CALENDER()

A. CALENDER(start date, end date)
B. Date(year, month, day)
C. Year() → we used existing data year
D. Arguments expected. So, min & max we used

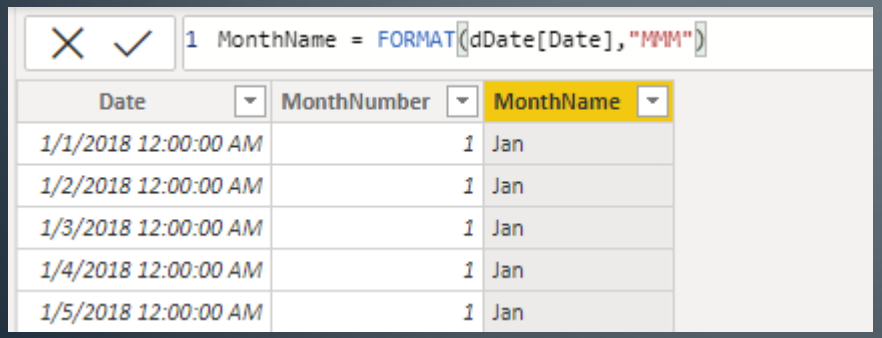
15. Creating new columns in new table

A. Number of Month column



Date	MonthNumber
1/1/2018 12:00:00 AM	1
1/2/2018 12:00:00 AM	1
1/3/2018 12:00:00 AM	1
1/4/2018 12:00:00 AM	1

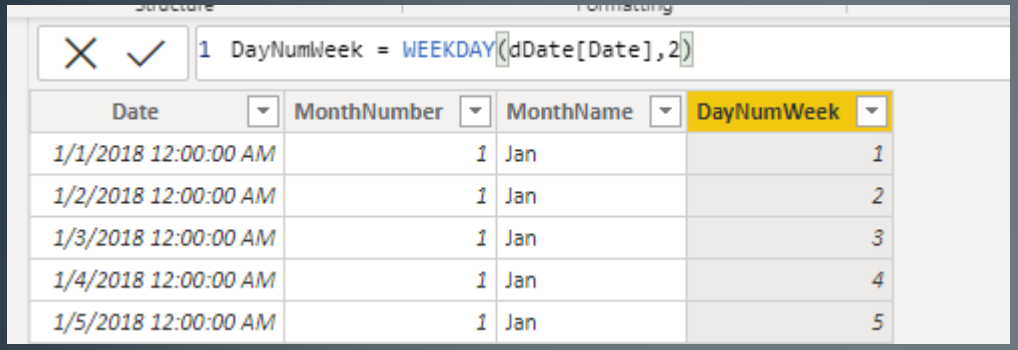
B. Name of Month column



Date	MonthNumber	MonthName
1/1/2018 12:00:00 AM	1	Jan
1/2/2018 12:00:00 AM	1	Jan
1/3/2018 12:00:00 AM	1	Jan
1/4/2018 12:00:00 AM	1	Jan
1/5/2018 12:00:00 AM	1	Jan

15. Creating new columns in new table

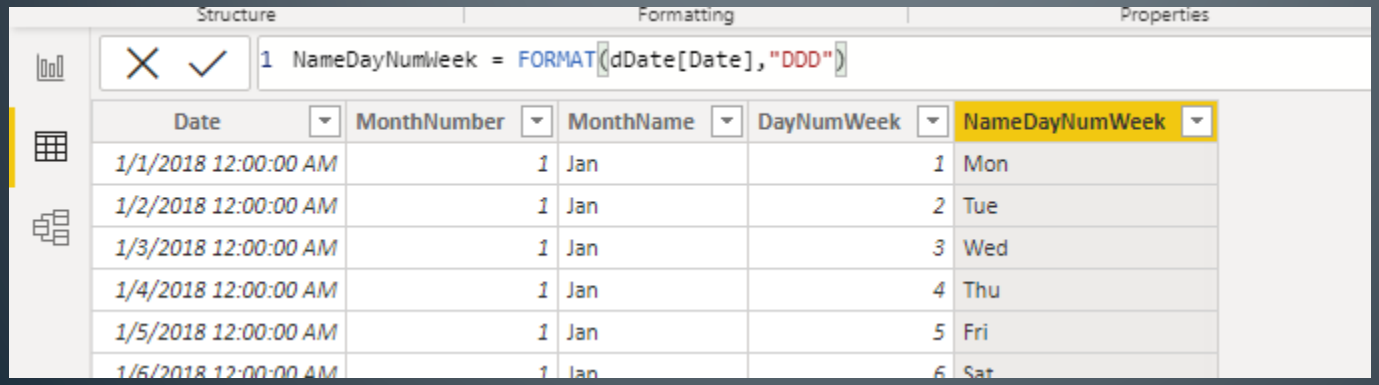
C. Day number in Week column



```
1 DayNumWeek = WEEKDAY(dDate[Date],2)
```

Date	MonthNumber	MonthName	DayNumWeek
1/1/2018 12:00:00 AM	1	Jan	1
1/2/2018 12:00:00 AM	1	Jan	2
1/3/2018 12:00:00 AM	1	Jan	3
1/4/2018 12:00:00 AM	1	Jan	4
1/5/2018 12:00:00 AM	1	Jan	5

D. Name of Day number in Week column



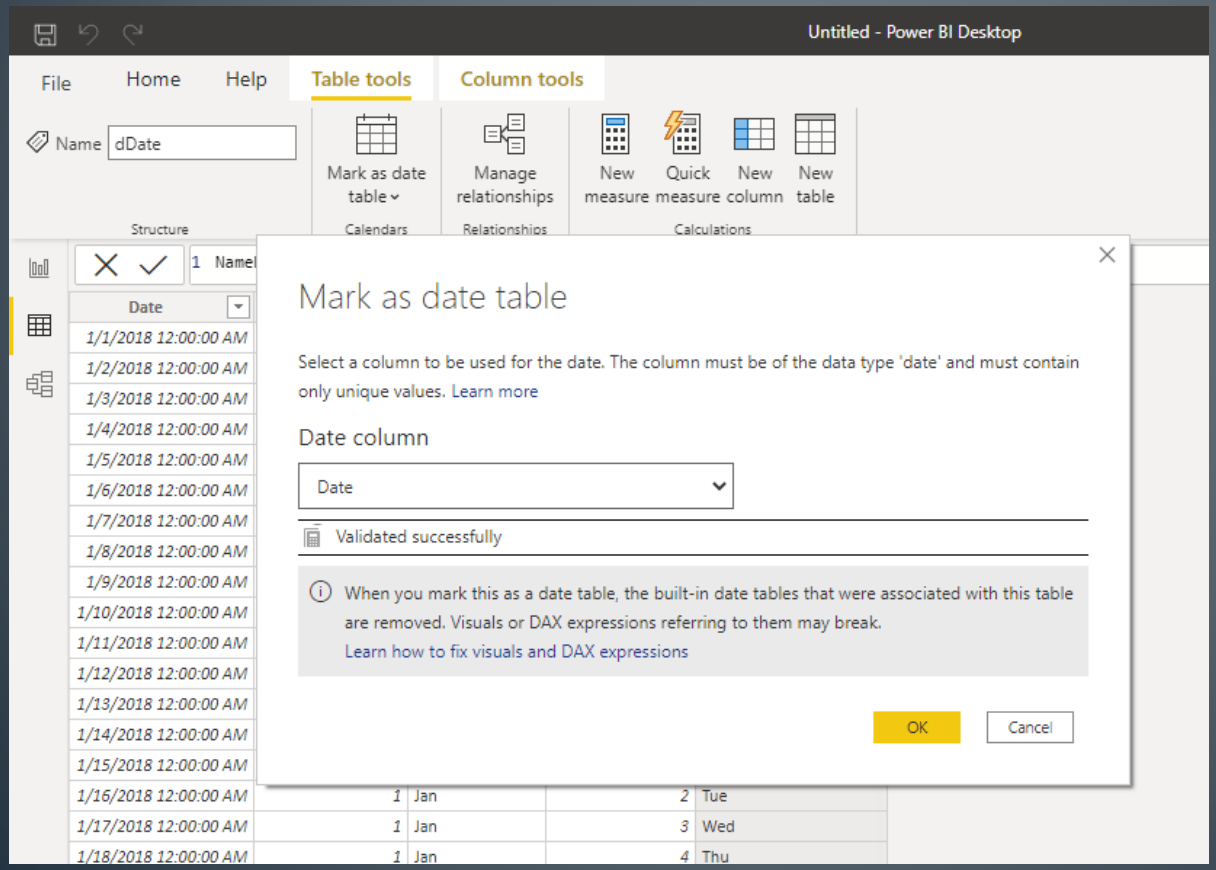
Structure | Formatting | Properties

```
1 NameDayNumWeek = FORMAT(dDate[Date],"DDD")
```

Date	MonthNumber	MonthName	DayNumWeek	NameDayNumWeek
1/1/2018 12:00:00 AM	1	Jan	1	Mon
1/2/2018 12:00:00 AM	1	Jan	2	Tue
1/3/2018 12:00:00 AM	1	Jan	3	Wed
1/4/2018 12:00:00 AM	1	Jan	4	Thu
1/5/2018 12:00:00 AM	1	Jan	5	Fri
1/6/2018 12:00:00 AM	1	Jan	6	Sat

16. According to Name of Day number in Week column Sort the new table.

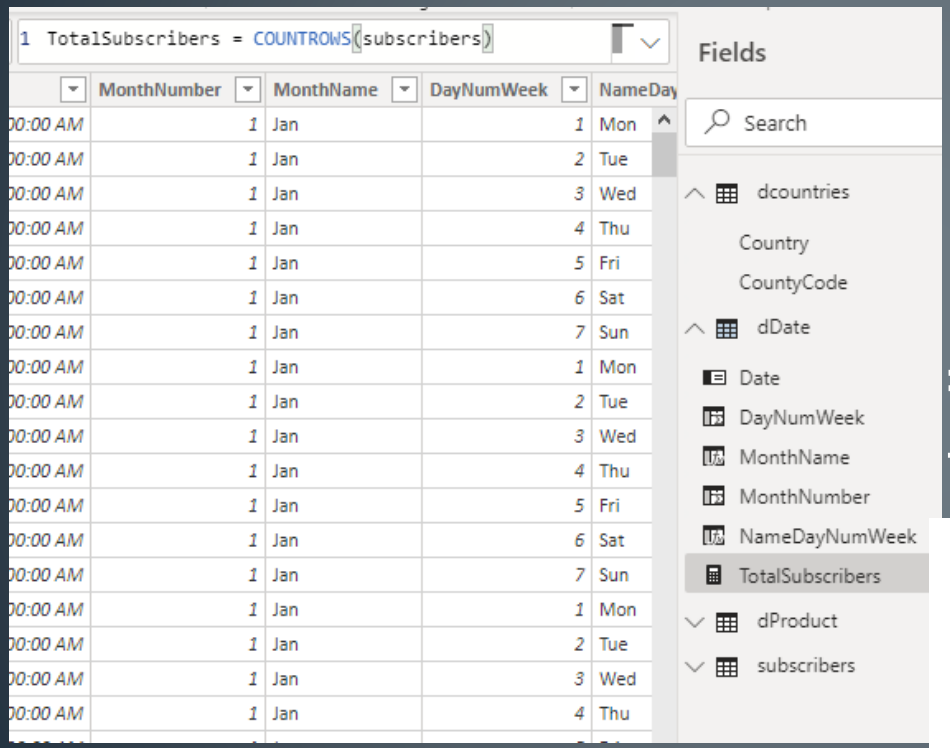
17. Mark as data table new table.



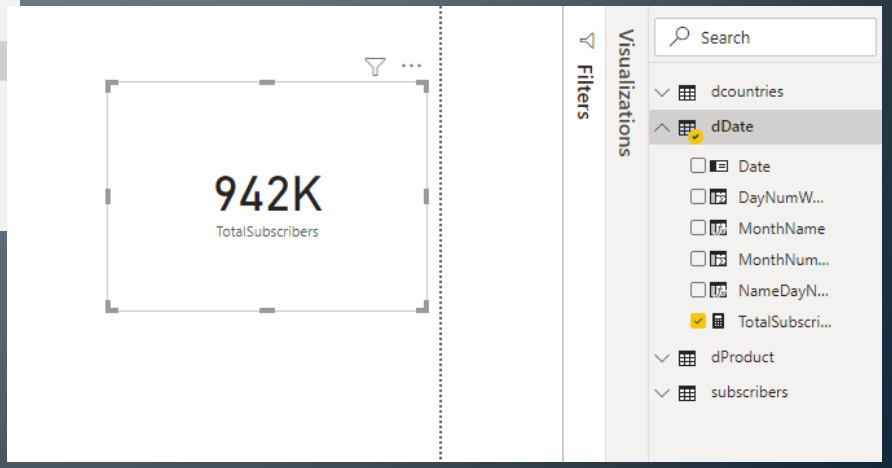
18. We can hide some columns from report view if we don't need. In Model view Table columns right click Hide View. WE can do this in many ways also

19. Creating New Measure Using DAX in subscribers Table (I by mistakenly created it dDate Table. You don't create in dDate Table)

A. We have to create a matrix for total subscribers

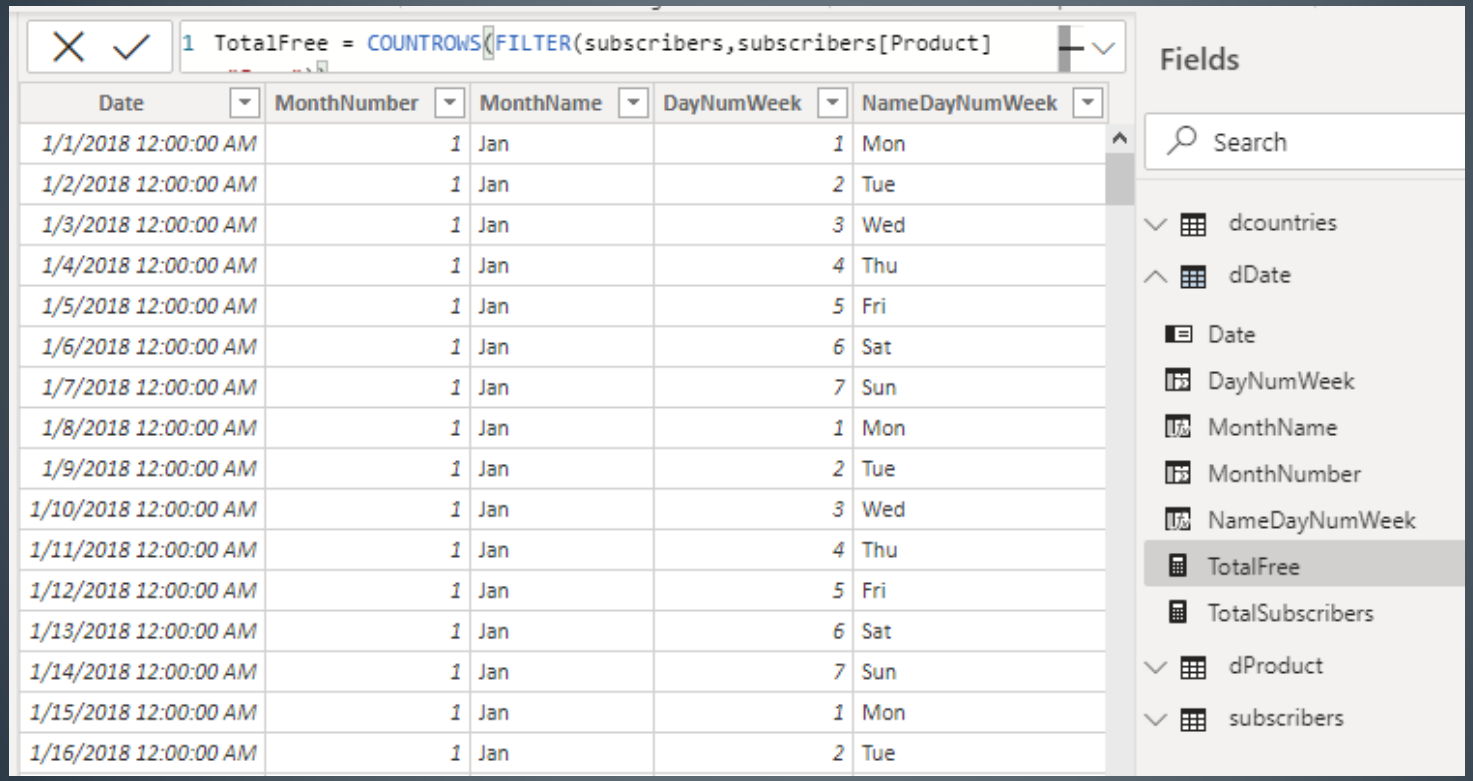


We have to check measure from visualization (Report View)



19. Creating New Measure Using DAX

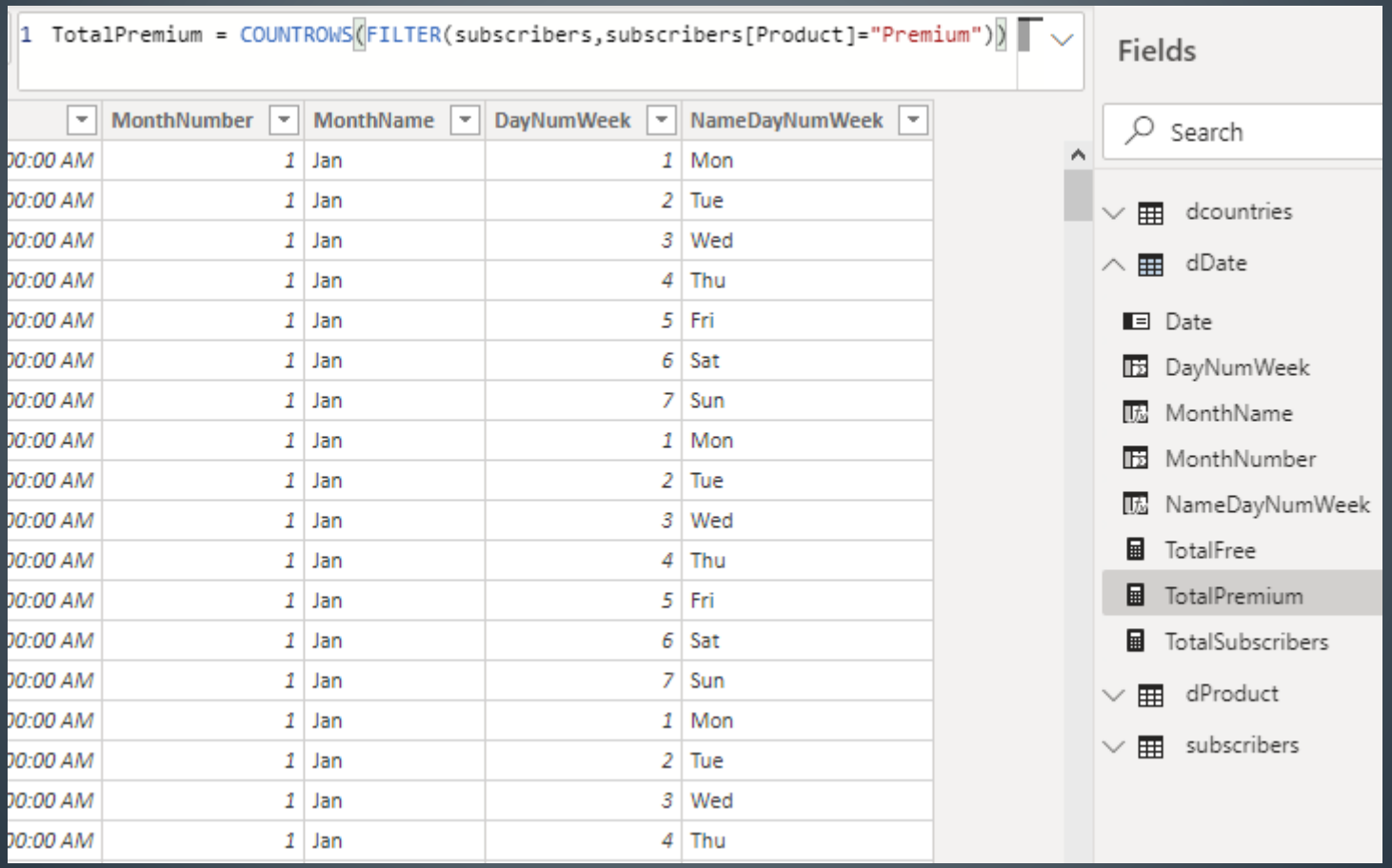
B. We have to create a matrix for counting total Free subscribers.



Date	MonthNumber	MonthName	DayNumWeek	NameDayNumWeek
1/1/2018 12:00:00 AM	1	Jan	1	Mon
1/2/2018 12:00:00 AM	1	Jan	2	Tue
1/3/2018 12:00:00 AM	1	Jan	3	Wed
1/4/2018 12:00:00 AM	1	Jan	4	Thu
1/5/2018 12:00:00 AM	1	Jan	5	Fri
1/6/2018 12:00:00 AM	1	Jan	6	Sat
1/7/2018 12:00:00 AM	1	Jan	7	Sun
1/8/2018 12:00:00 AM	1	Jan	1	Mon
1/9/2018 12:00:00 AM	1	Jan	2	Tue
1/10/2018 12:00:00 AM	1	Jan	3	Wed
1/11/2018 12:00:00 AM	1	Jan	4	Thu
1/12/2018 12:00:00 AM	1	Jan	5	Fri
1/13/2018 12:00:00 AM	1	Jan	6	Sat
1/14/2018 12:00:00 AM	1	Jan	7	Sun
1/15/2018 12:00:00 AM	1	Jan	1	Mon
1/16/2018 12:00:00 AM	1	Jan	2	Tue

19. Creating New Measure Using DAX

C. We have to create a matrix for counting total Premium subscribers.



19. Creating New Measure Using DAX

D. We have to create a matrix for counting total revenue.

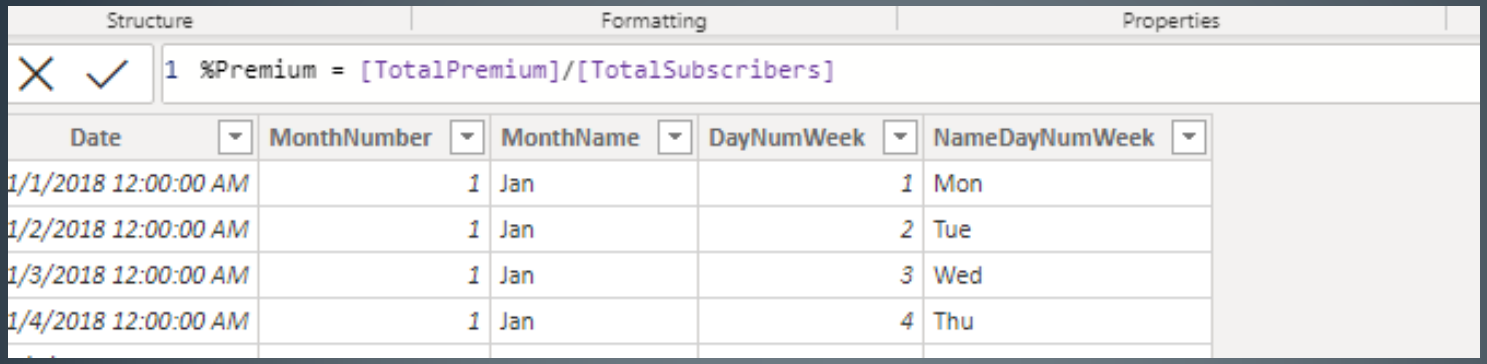
In here we have to use sum or max aggregation function.

```
1  TotalRevenue = [TotalPremium]*SUM(dProduct[Price])
```

	MonthNumber	MonthName	DayNumWeek	NameDayNumWeek
:00:00 AM	1	Jan	1	Mon

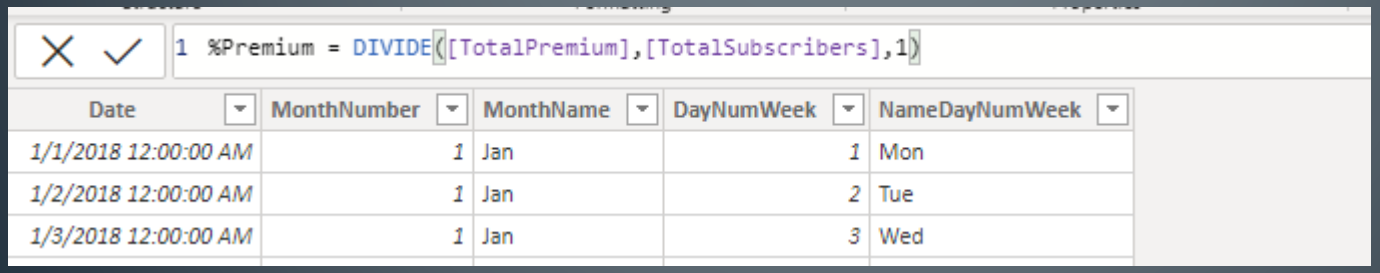
19. Creating New Measure Using DAX

E. We have to create a matrix for Premium Percent.



Date	MonthNumber	MonthName	DayNumWeek	NameDayNumWeek
1/1/2018 12:00:00 AM	1	Jan	1	Mon
1/2/2018 12:00:00 AM	1	Jan	2	Tue
1/3/2018 12:00:00 AM	1	Jan	3	Wed
1/4/2018 12:00:00 AM	1	Jan	4	Thu

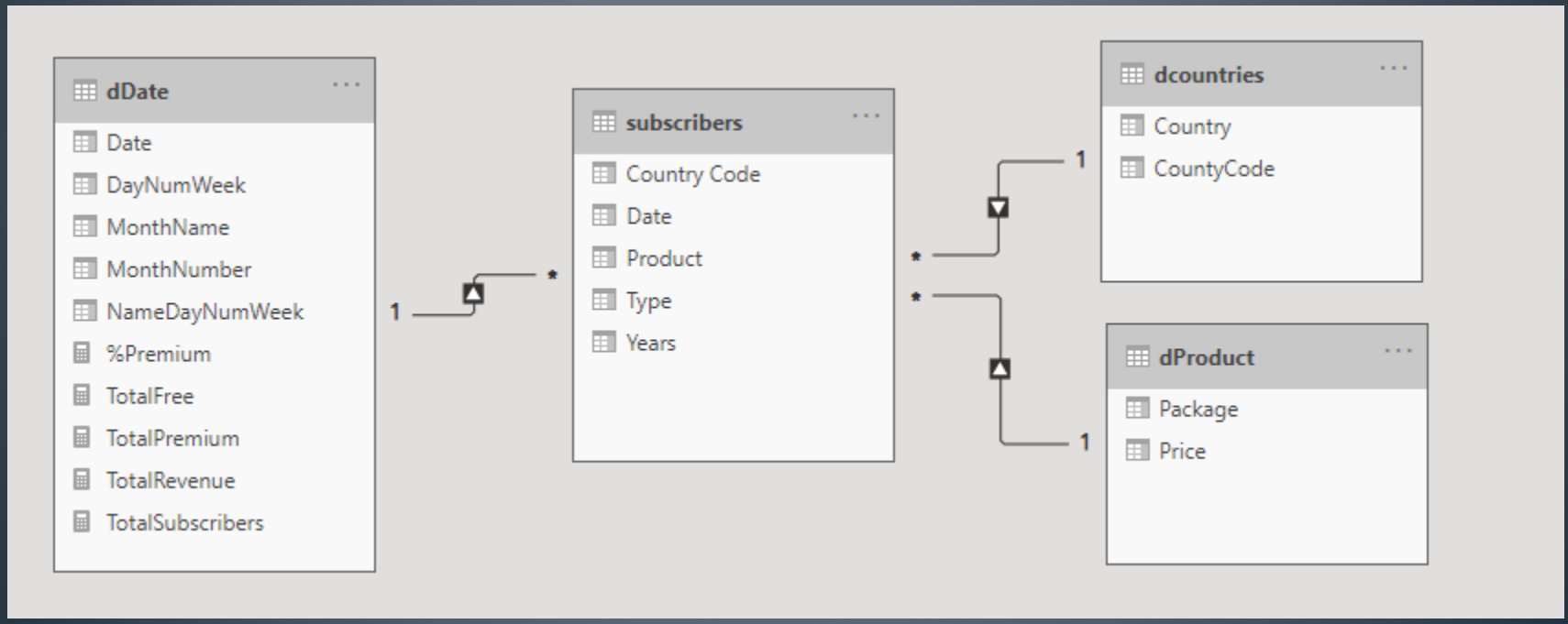
We can do this in DAX different method also.



Date	MonthNumber	MonthName	DayNumWeek	NameDayNumWeek
1/1/2018 12:00:00 AM	1	Jan	1	Mon
1/2/2018 12:00:00 AM	1	Jan	2	Tue
1/3/2018 12:00:00 AM	1	Jan	3	Wed

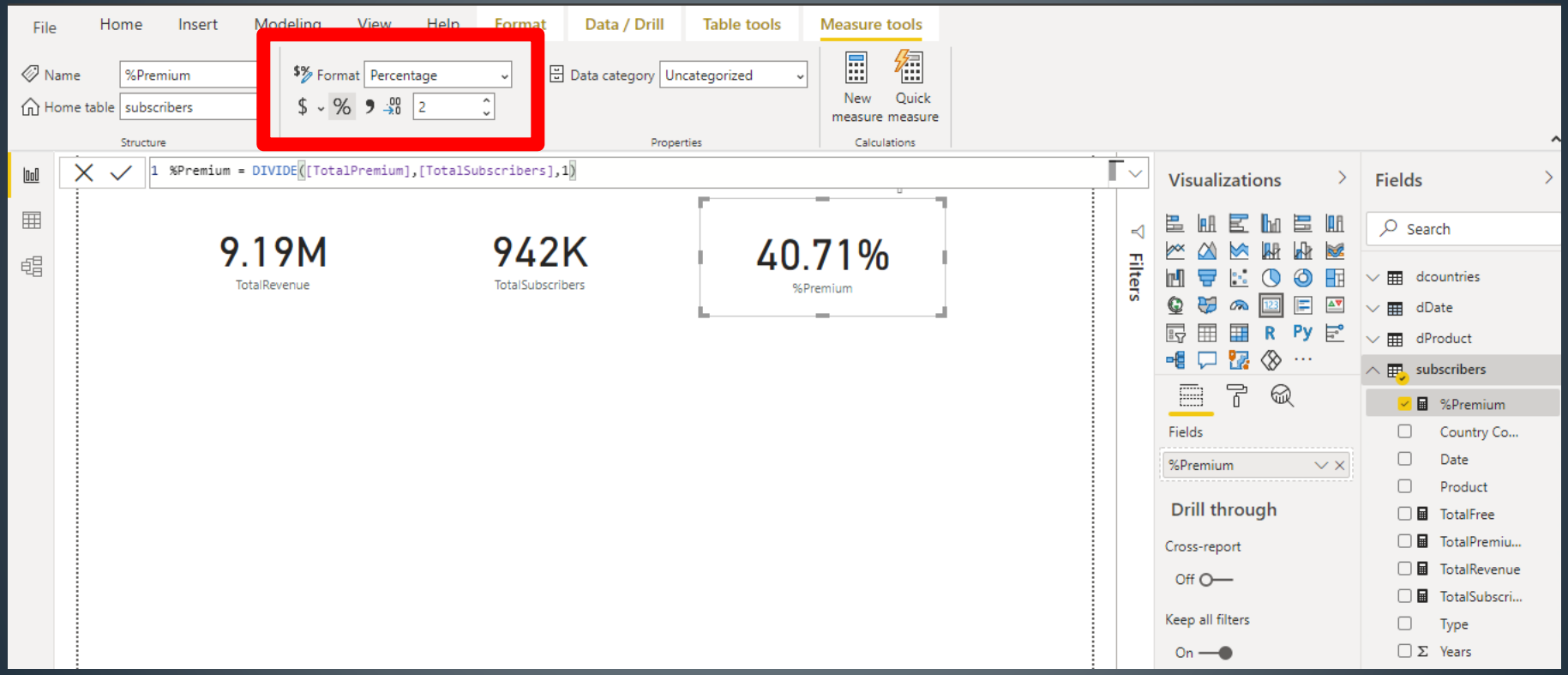
20. Model Relationship

subscribers	dDate
Date	Date



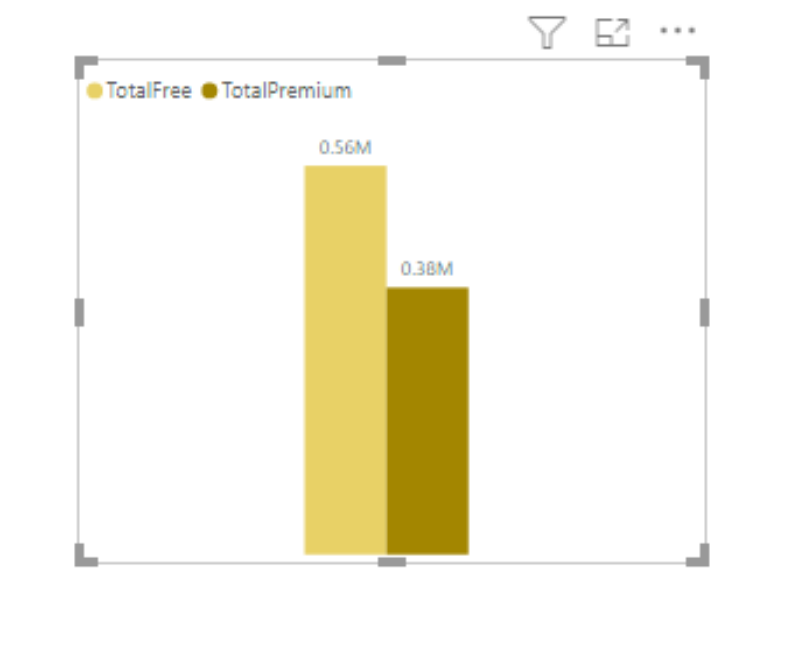
21. Create Card Visualizations for below 3 Measures with borders

22. %Premium Measure change to % with 2 decimals.

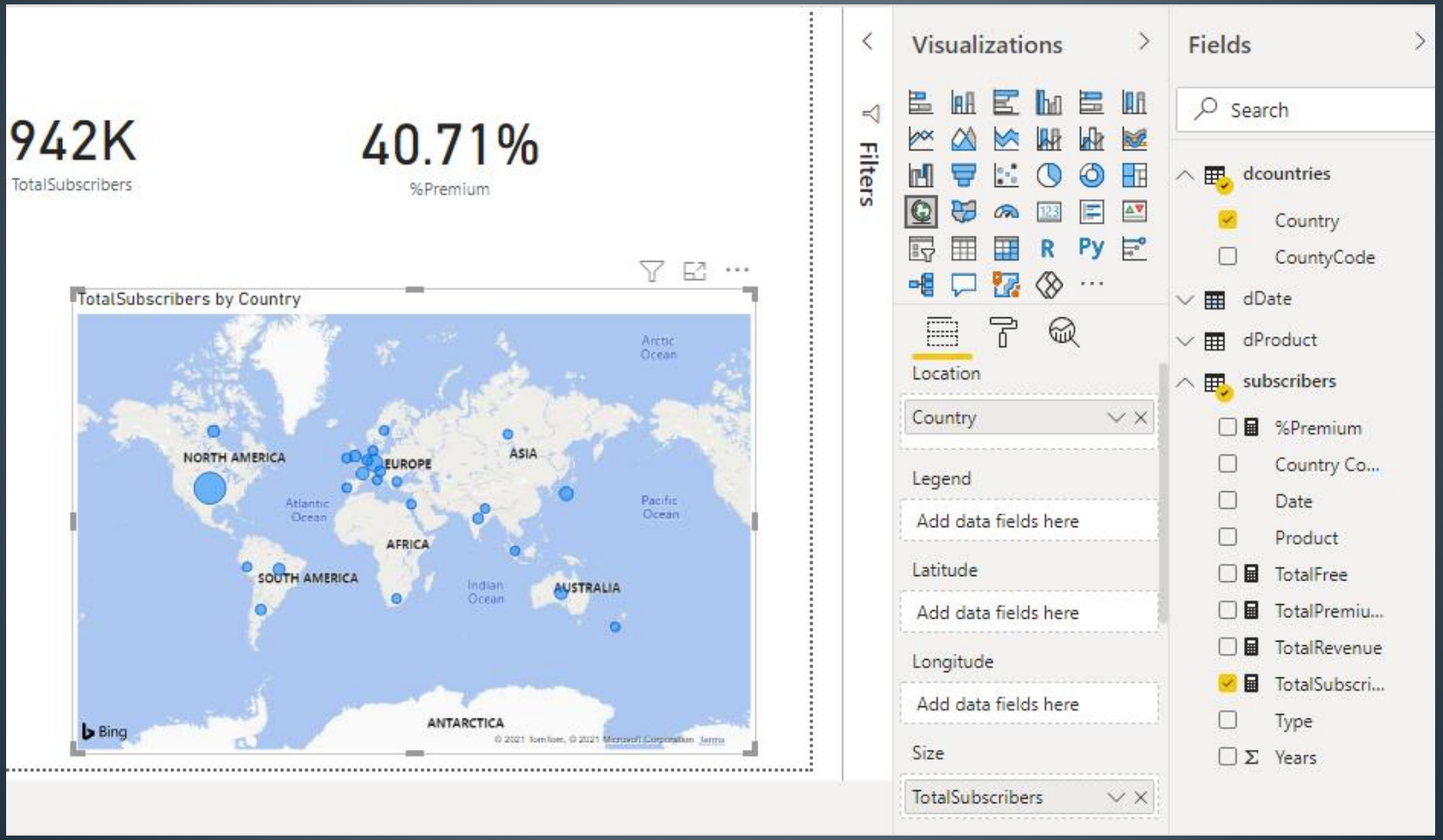


23. Column Chart

- Drag TotalFree and TotalPremium measures in to Column Chart
- Format→
  - Title off
  - y axis & title off
  - data label on
  - change the data colors

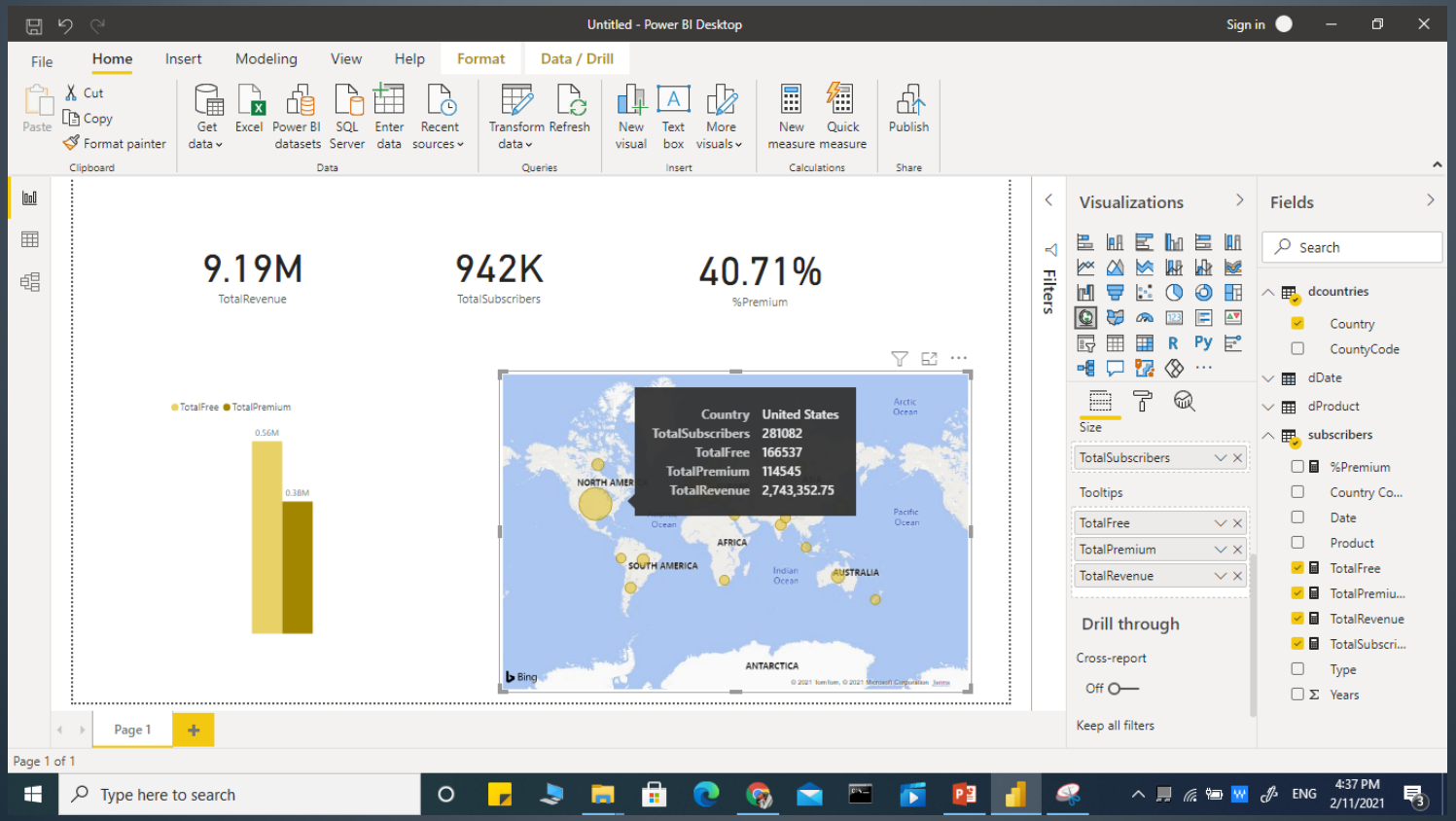


24. Map


942K
TotalSubscribers
40.71%
%Premium
TotalSubscribers by Country
NORTH AMERICA
EUROPE
ASIA
AFRICA
SOUTH AMERICA
AUSTRALIA
ANTARCTICA
Arctic Ocean
Atlantic Ocean
Pacific Ocean
Indian Ocean
Bing
Filters
Visualizations
Location
Country
Legend
Add data fields here
Latitude
Add data fields here
Longitude
Add data fields here
Size
TotalSubscribers
Fields
Search
dcountries
Country
CountyCode
dDate
dProduct
subscribers
%Premium
Country Co...
Date
Product
TotalFree
TotalPremiu...
TotalRevenue
TotalSubscri...
Type
Years

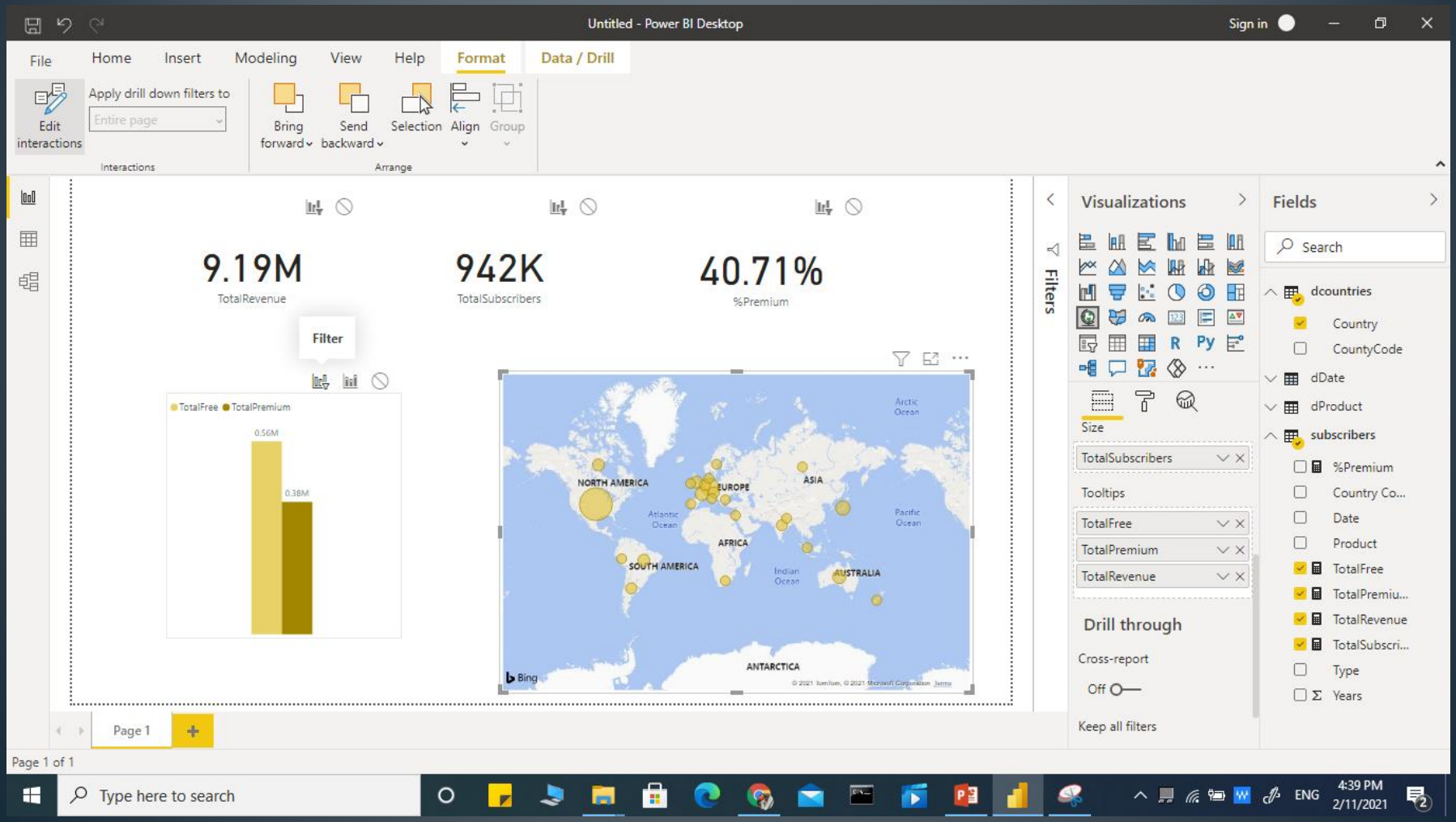
24. Map

- We have to check our relationship in model right or wrong.
- Format→
  - Title off
  - Bubbles ← Size increase & change Data colors
- Fields → Tooltips (3 measures)



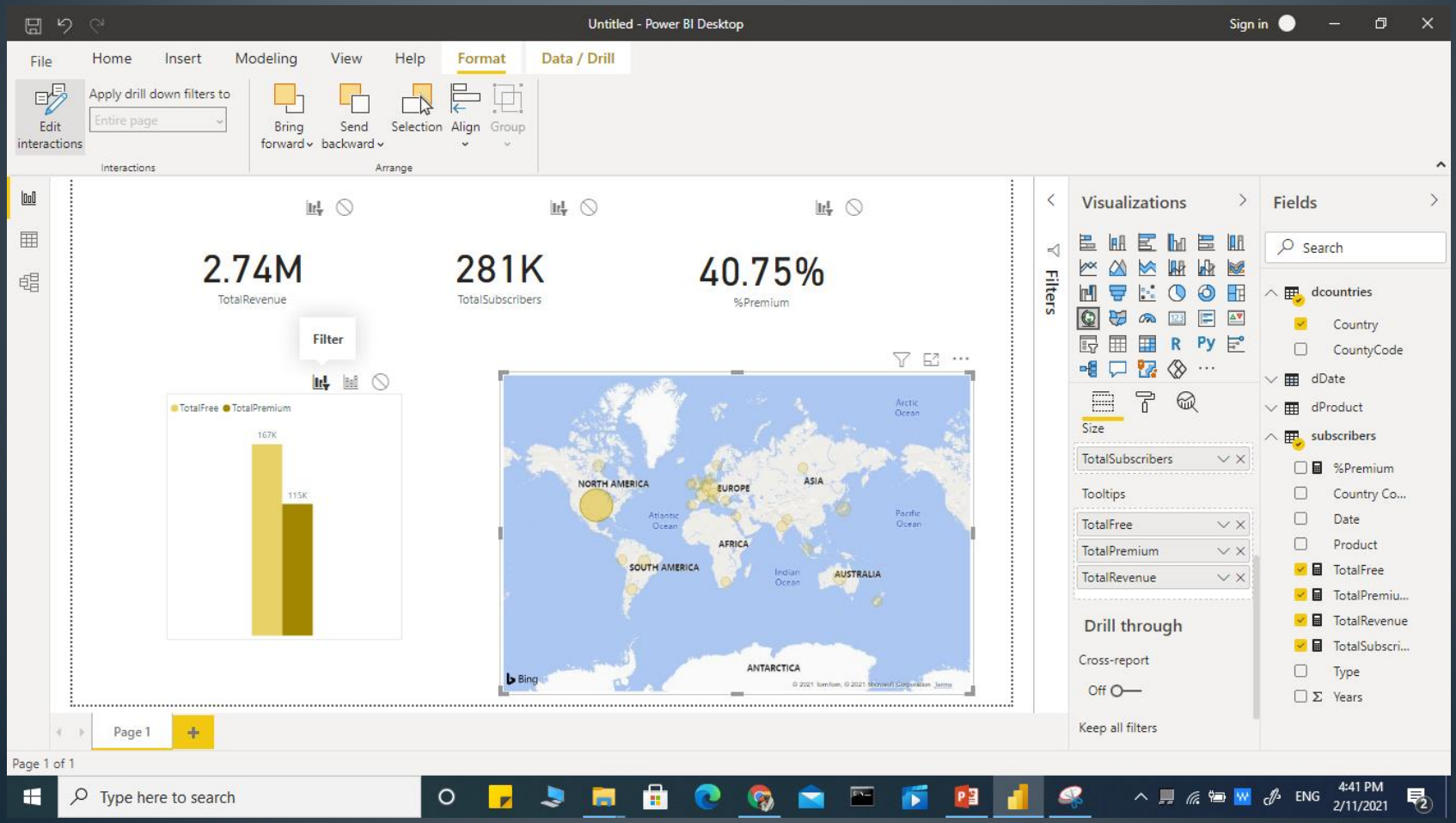
24. Map

- From map Format→ Edit Interactions (Filter, Highlight & None)



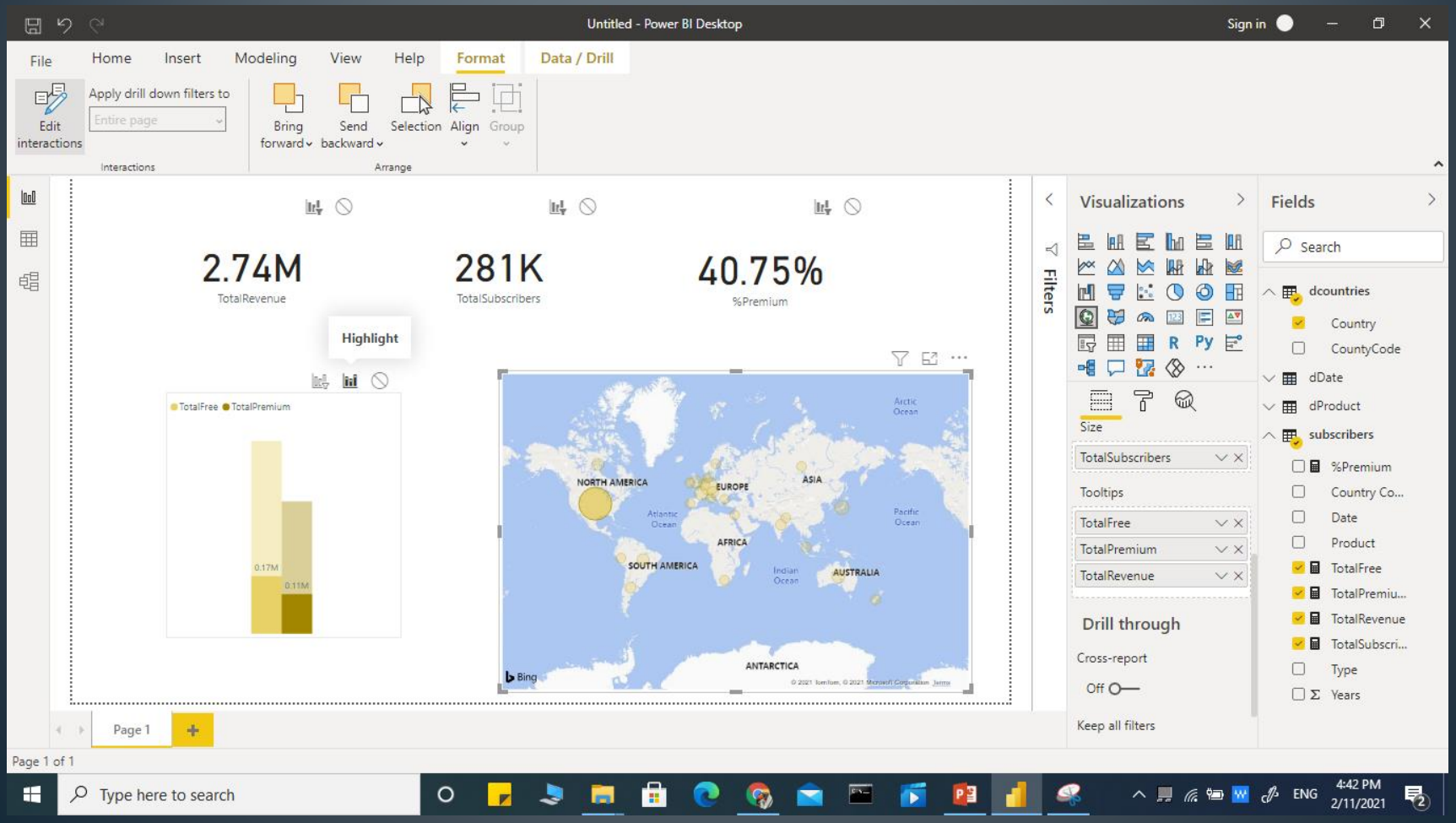
24. Map

- Filter



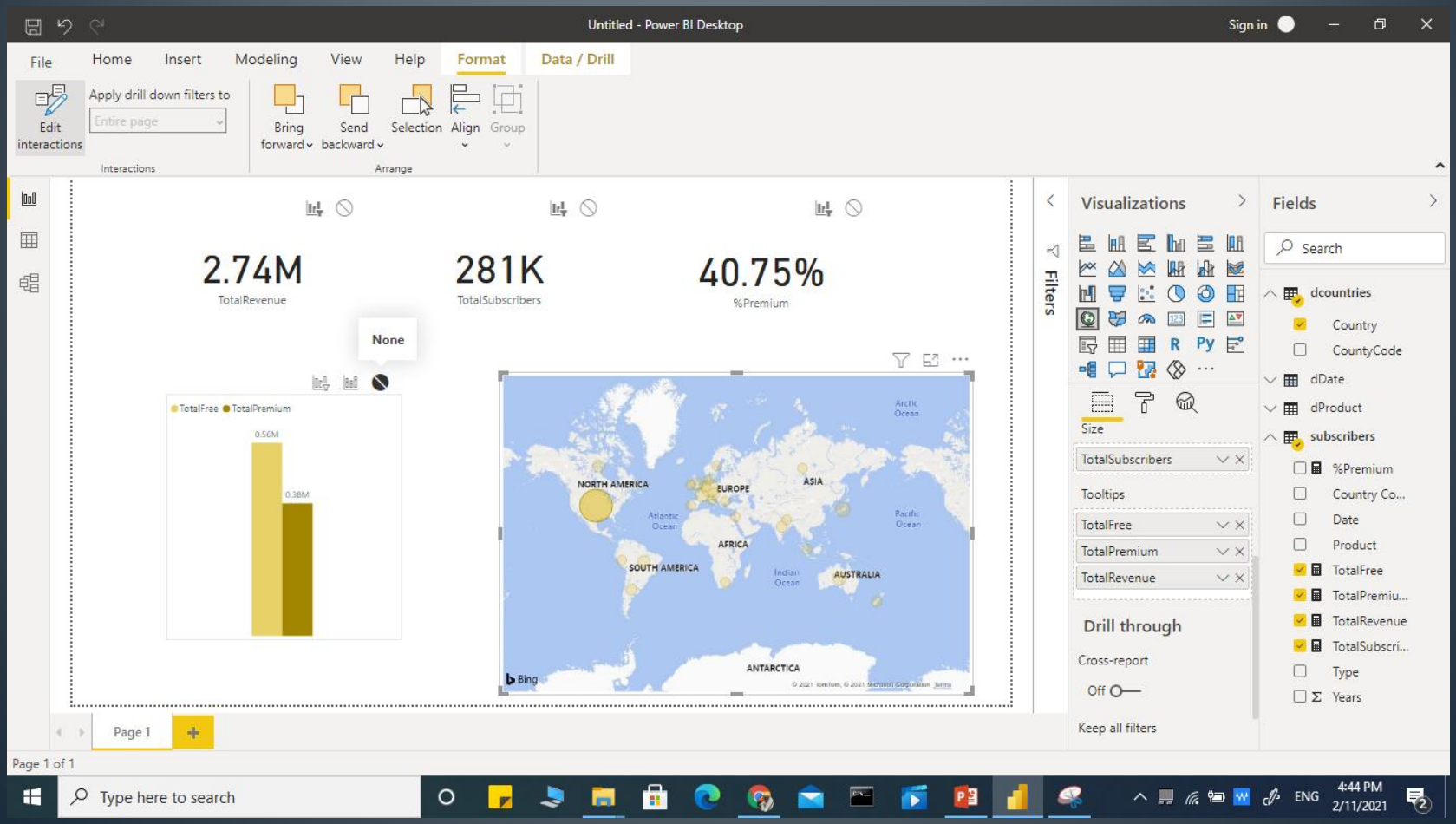
24. Map

- Highlights



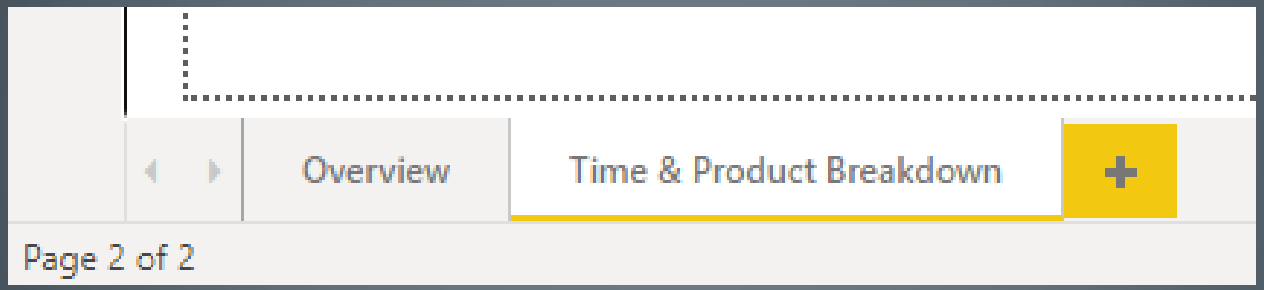
24. Map

- None

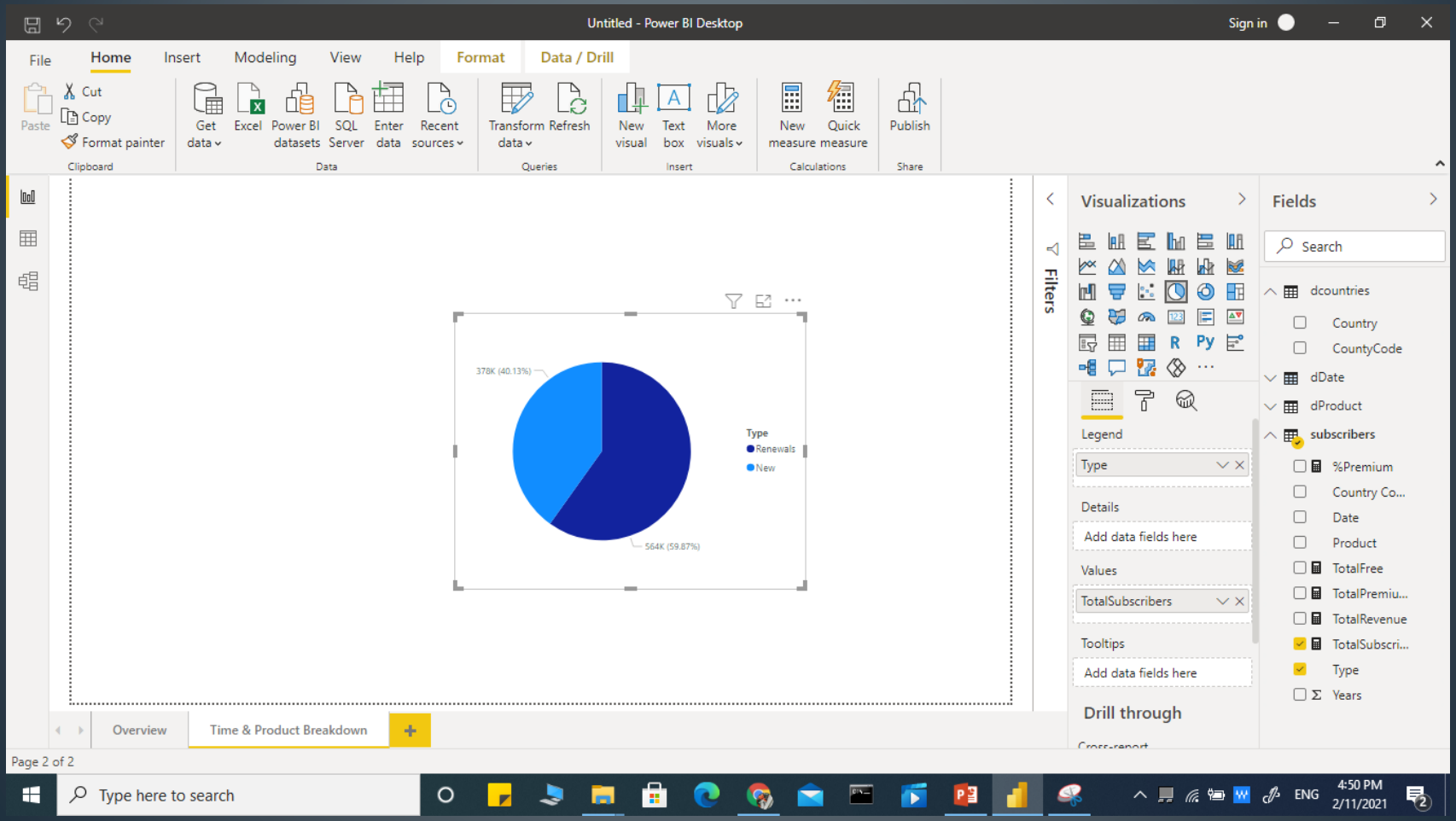

Untitled - Power BI Desktop
Sign in
File
Home
Insert
Modeling
View
Help
Format
Data / Drill
Edit interactions
Apply drill down filters to
Entire page
Interactions
Bring forward
Send backward
Selection
Align
Group
Arrange
2.74M
TotalRevenue
281K
TotalSubscribers
40.75%
%Premium
None
TotalFree
TotalPremium
0.56M
0.38M
NORTH AMERICA
EUROPE
ASIA
AFRICA
SOUTH AMERICA
AUSTRALIA
ANTARCTICA
Arctic Ocean
Atlantic Ocean
Pacific Ocean
Indian Ocean
Bing
Filters
Visualizations
Size
TotalSubscribers
Tooltips
TotalFree
TotalPremium
TotalRevenue
Drill through
Cross-report
Off
Keep all filters
Fields
Search
dcountries
Country
CountyCode
dDate
dProduct
subscribers
%Premium
Country Co...
Date
Product
TotalFree
TotalPremiu...
TotalRevenue
TotalSubscri...
Type
Years
Page 1
Page 1 of 1
Type here to search
ENG
4:44 PM
2/11/2021

25. Page-1 rename in to **Overview**

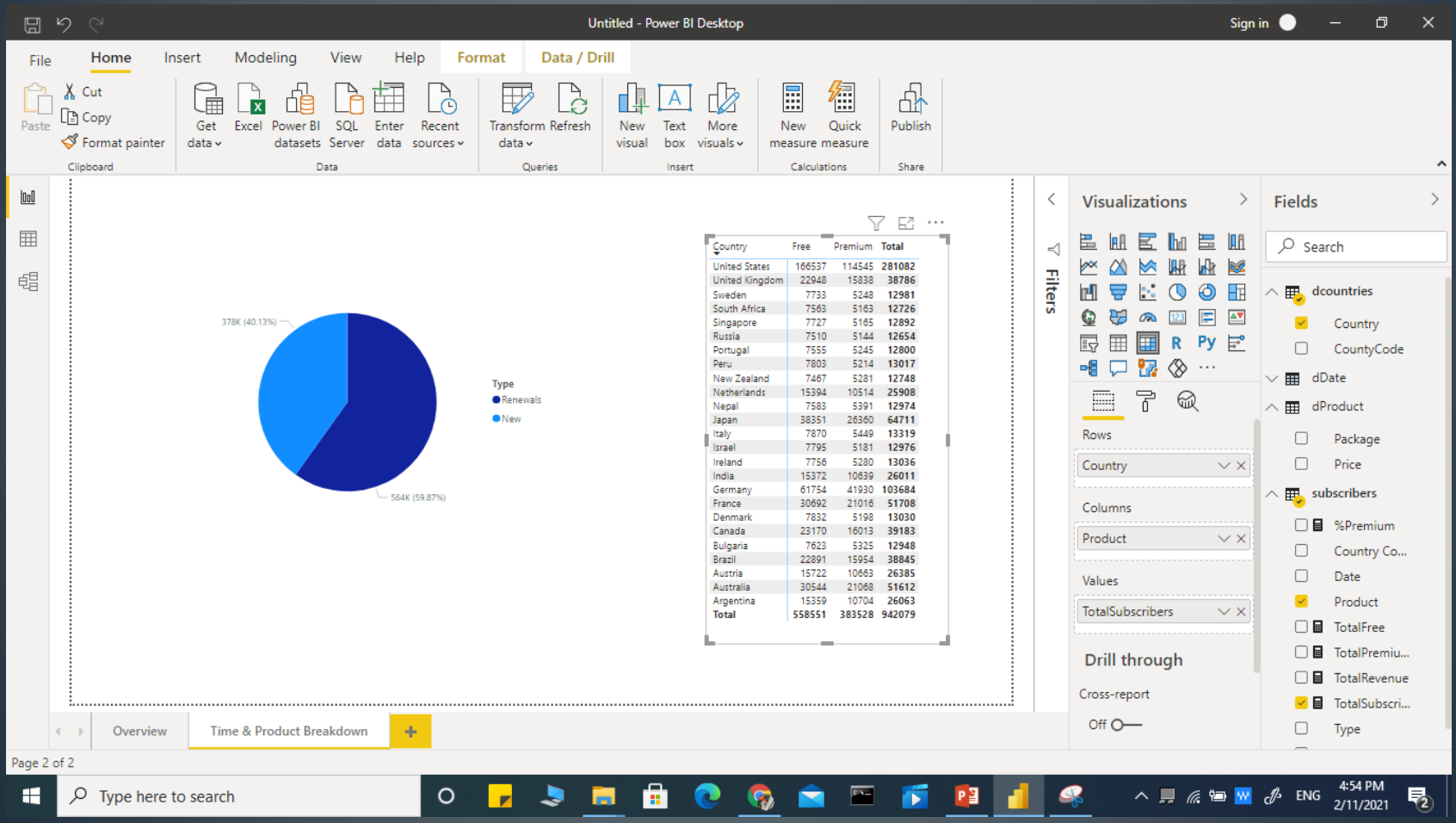
26. Page-2 rename in to **Time & Product Breakdown**



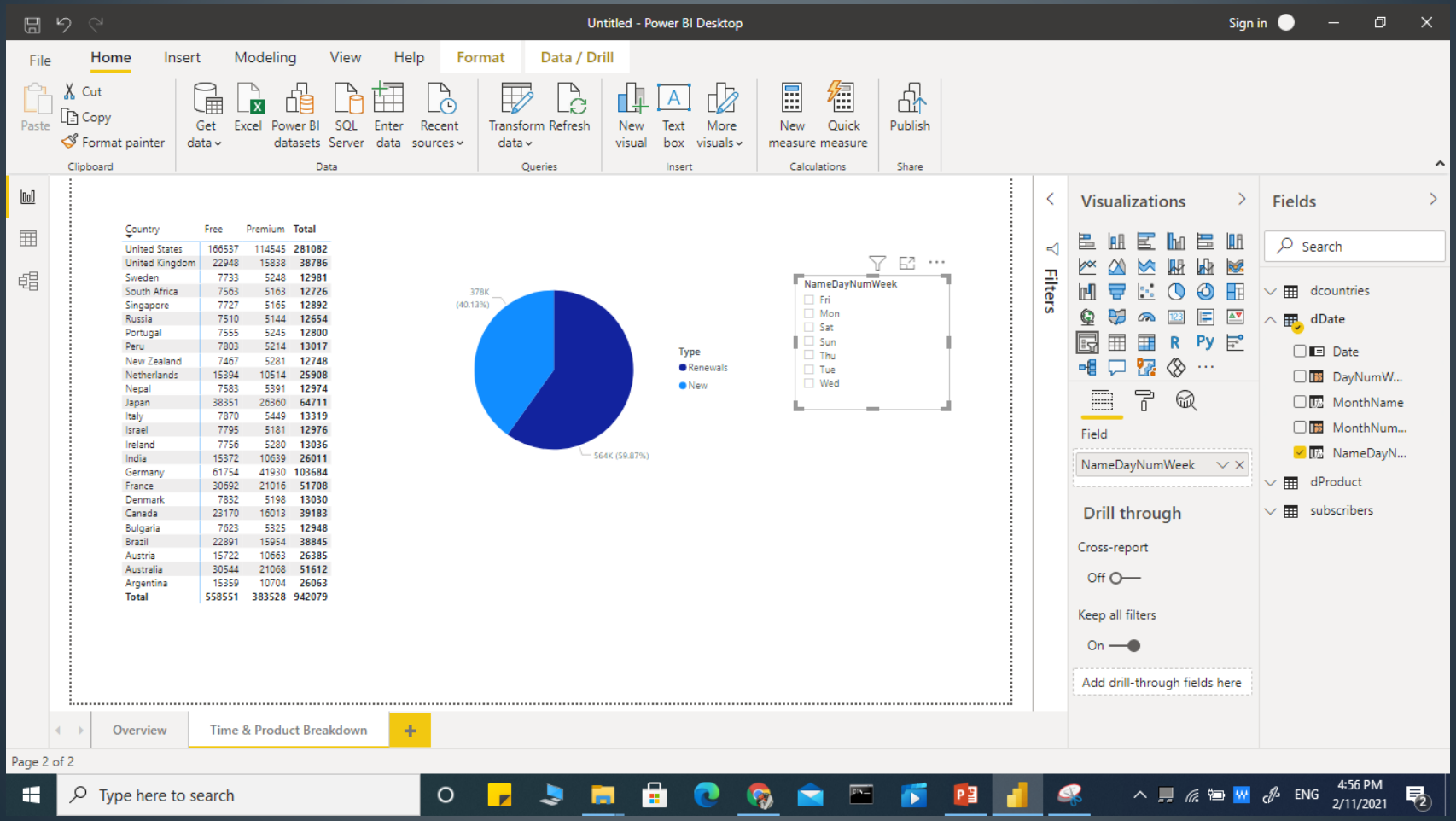
27. Pie Chart without Title (Format)



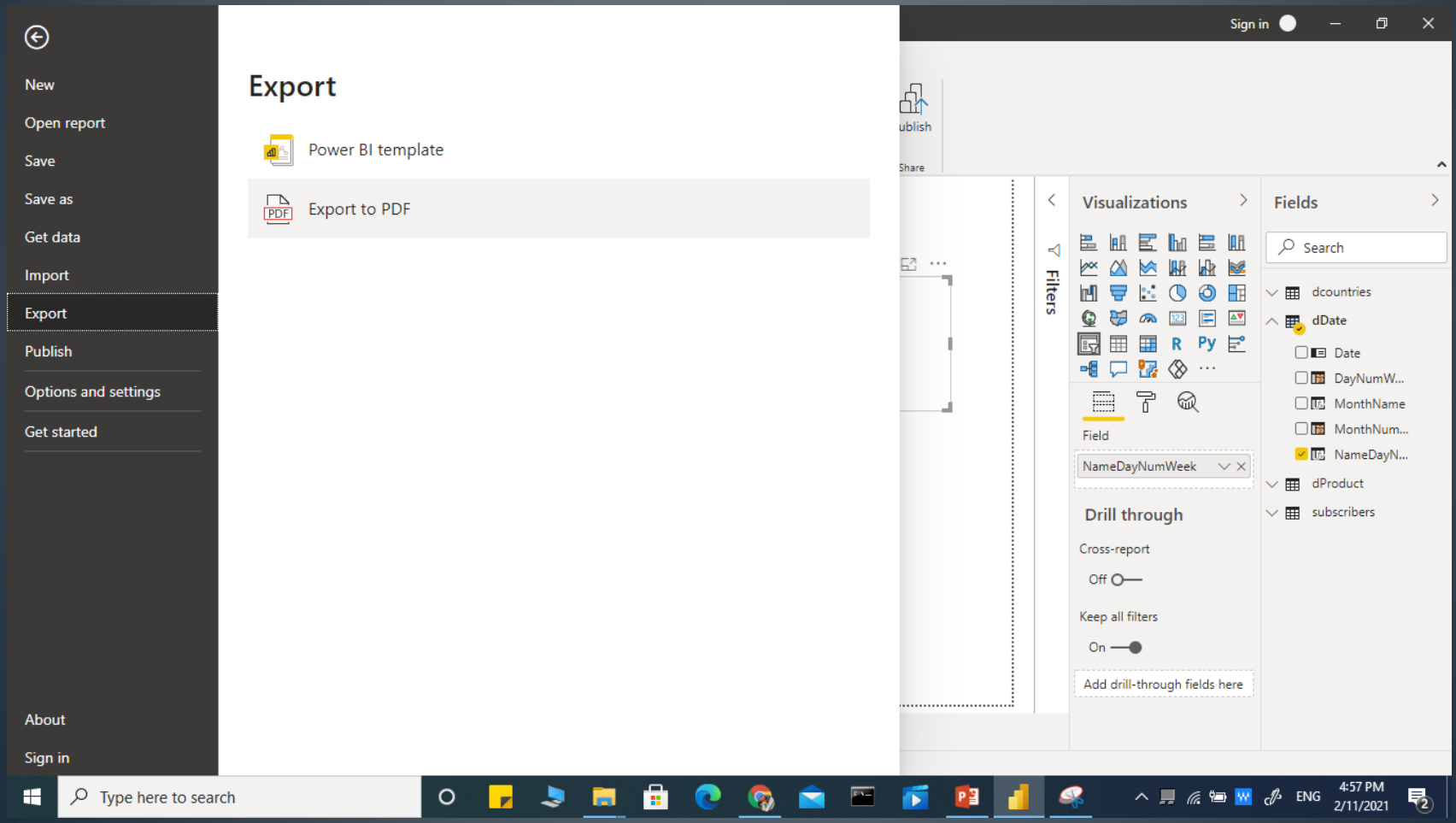
28. Matrix


Untitled - Power BI Desktop
Sign in
File
Home
Insert
Modeling
View
Help
Format
Data / Drill
Paste
Cut
Copy
Format painter
Clipboard
Get data
Excel
Power BI datasets
SQL Server
Enter data
Recent sources
Data
Transform data
Refresh
Queries
New visual
Text box
More visuals
Insert
New measure
Quick measure
Calculations
Publish
Share
378K (40.13%)
564K (59.87%)
Type
Renewals
New
Country Free Premium Total
United States 166537 114545 281082
United Kingdom 22948 15838 38786
Sweden 7733 5248 12981
South Africa 7563 5163 12726
Singapore 7727 5165 12892
Russia 7510 5144 12654
Portugal 7555 5245 12800
Peru 7803 5214 13017
New Zealand 7467 5281 12748
Netherlands 15394 10514 25908
Nepal 7583 5391 12974
Japan 38351 26360 64711
Italy 7870 5449 13319
Israel 7795 5181 12976
Ireland 7756 5280 13036
India 15372 10639 26011
Germany 61754 41930 103684
France 30692 21016 51708
Denmark 7832 5198 13030
Canada 23170 16013 39183
Bulgaria 7623 5325 12948
Brazil 22891 15954 38845
Austria 15722 10663 26385
Australia 30544 21068 51612
Argentina 15359 10704 26063
Total 558551 383528 942079
Filters
Visualizations
Rows
Country
Columns
Product
Values
TotalSubscribers
Drill through
Cross-report
Off
Fields
Search
dcountries
Country
CountyCode
dDate
dProduct
Package
Price
subscribers
%Premium
Country Co...
Date
Product
TotalFree
TotalPremiu...
TotalRevenue
TotalSubscri...
Type
Overview
Time & Product Breakdown
Page 2 of 2
Type here to search
ENG
4:54 PM
2/11/2021

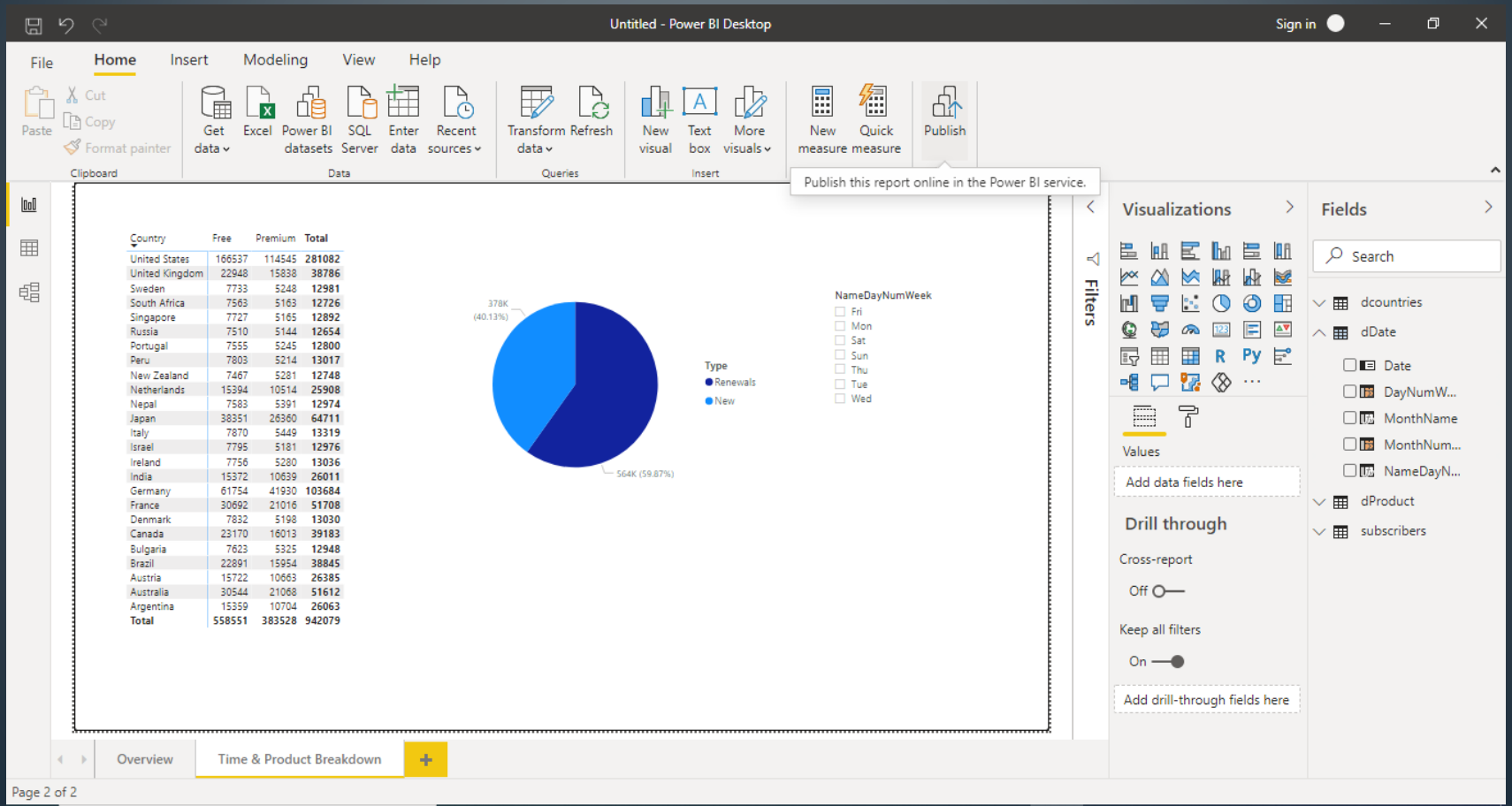
29. Slicer


Untitled - Power BI Desktop
Sign in
File
Home
Insert
Modeling
View
Help
Format
Data / Drill
Paste
Cut
Copy
Format painter
Clipboard
Get data
Excel
Power BI datasets
SQL Server
Enter data
Recent sources
Data
Transform data
Refresh
Queries
New visual
Text box
More visuals
Insert
New measure
Quick measure
Calculations
Publish
Share
Country Free Premium Total
United States 166537 114545 281082
United Kingdom 22948 15838 38786
Sweden 7733 5248 12981
South Africa 7563 5163 12726
Singapore 7727 5165 12892
Russia 7510 5144 12654
Portugal 7555 5245 12800
Peru 7803 5214 13017
New Zealand 7467 5281 12748
Netherlands 15394 10514 25908
Nepal 7583 5391 12974
Japan 38351 26360 64711
Italy 7870 5449 13319
Israel 7795 5181 12976
Ireland 7756 5280 13036
India 15372 10639 26011
Germany 61754 41930 103684
France 30692 21016 51708
Denmark 7832 5198 13030
Canada 23170 16013 39183
Bulgaria 7623 5325 12948
Brazil 22891 15954 38845
Austria 15722 10663 26385
Australia 30544 21068 51612
Argentina 15359 10704 26063
Total 558551 383528 942079
378K (40.13%)
564K (59.87%)
Type
Renewals
New
NameDayNumWeek
Fri
Mon
Sat
Sun
Thu
Tue
Wed
Filters
Visualizations
Field
NameDayNumWeek
Drill through
Cross-report
Off
Keep all filters
On
Add drill-through fields here
Fields
Search
dcountries
dDate
Date
DayNumW...
MonthName
MonthNum...
NameDayN...
dProduct
subscribers
Overview
Time & Product Breakdown
Page 2 of 2
Type here to search
ENG
4:56 PM
2/11/2021

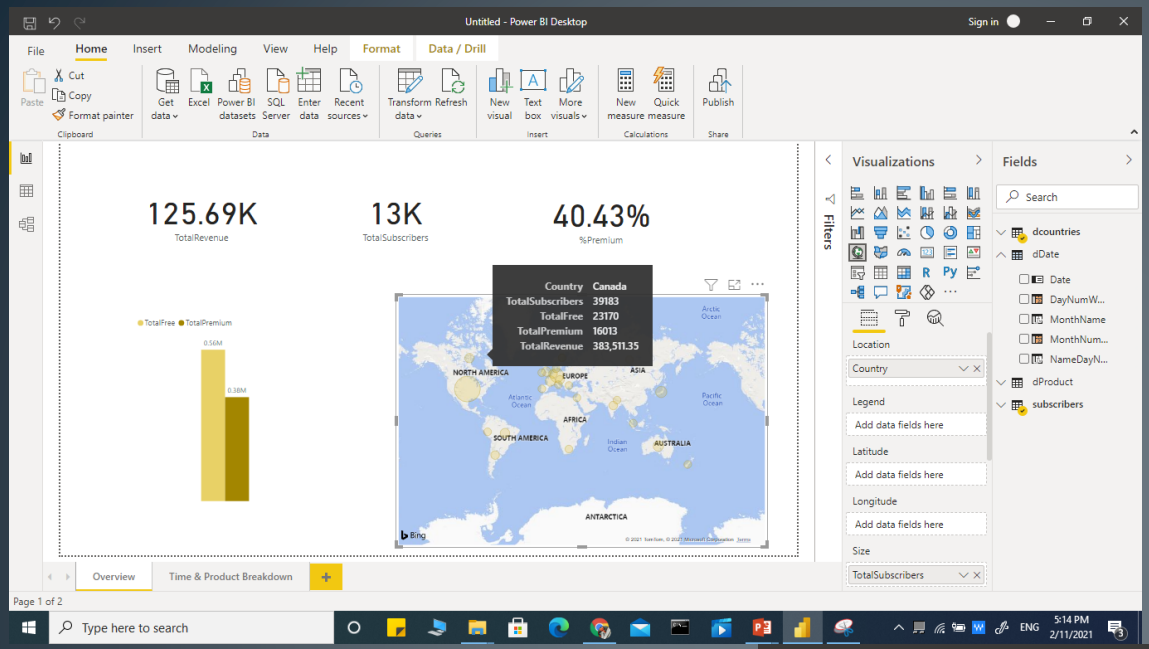
30. Export To PDF

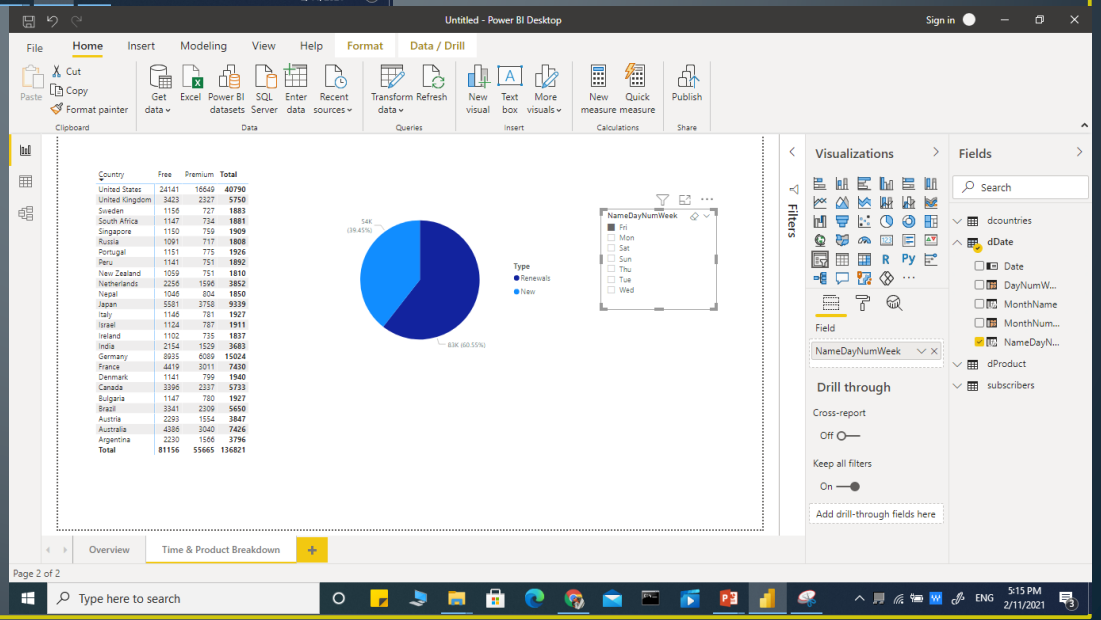


31. From the Publish Icon we can publish to PowerBI web. Then, we can access this report from anywhere from any device.



Final Output (Colors & organizing as ur wish)






THANK
YOU