



GLOBAL POWER PLATFORM BOOTCAMP 2021

Power BI Hands-On



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Get Started with Power BI

Welcome to GPPB 2021. I Hope, you have successfully set up your Power Apps. Now, let's build our Power BI report consuming data from CDS or Dataverse table.

If you haven't prepared your CDS data source, follow the [steps](#) here and build a CDS table. If you already have data source in place, please ignore this step.

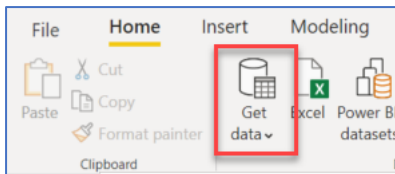
So, Now let's get started!

Prerequisites:

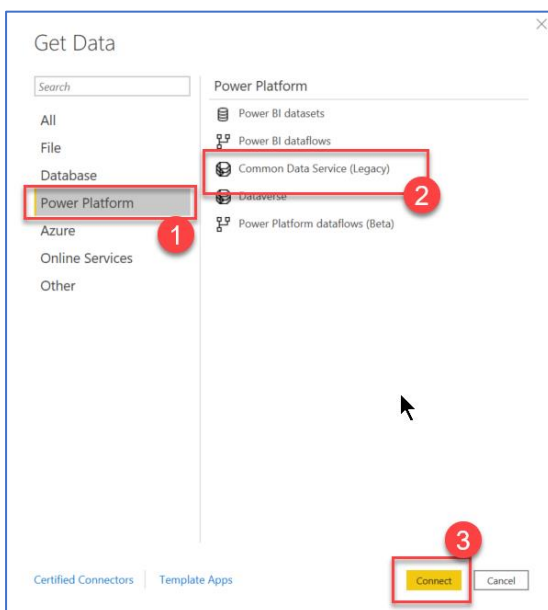
- [Download](#) Power BI Desktop
- Microsoft 365 Account or Power BI Trial License to Publish the Power BI Report

Connect CDS Table with Power BI Desktop

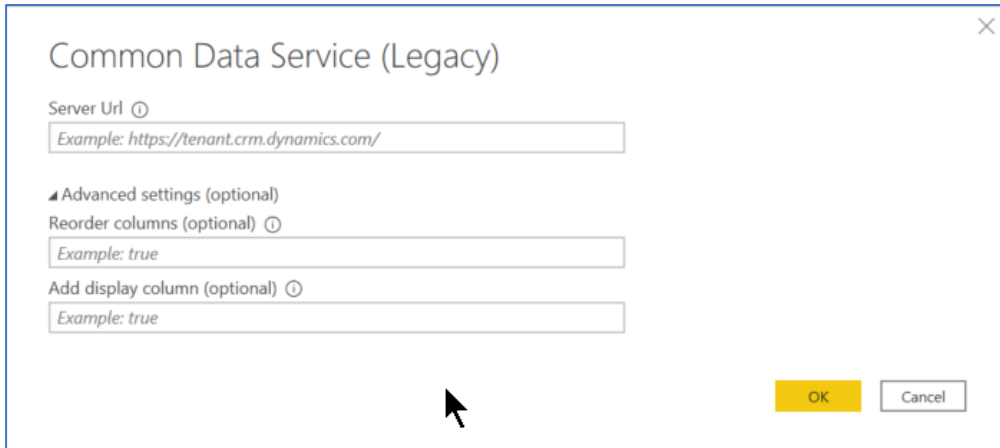
1. Open Power BI Desktop.
2. Click on Get Data from Home menu.



3. Click on Power Platform and select Common Data Service (Legacy)



4. Now, we need to provide "Server URL". Now, how we can find our CDS or Dataverse table's Server URL?



Common Data Service (Legacy)

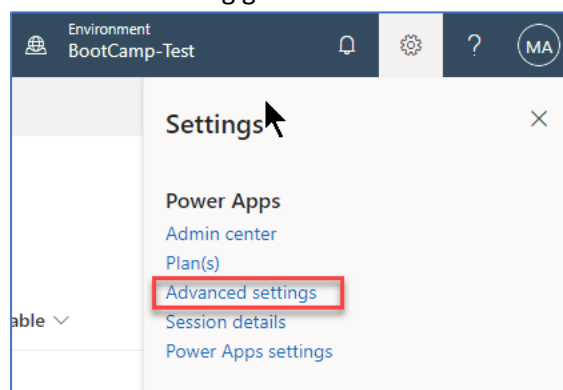
Server Url ⓘ
Example: <https://tenant.crm.dynamics.com/>

Advanced settings (optional)
Reorder columns (optional) ⓘ
Example: true

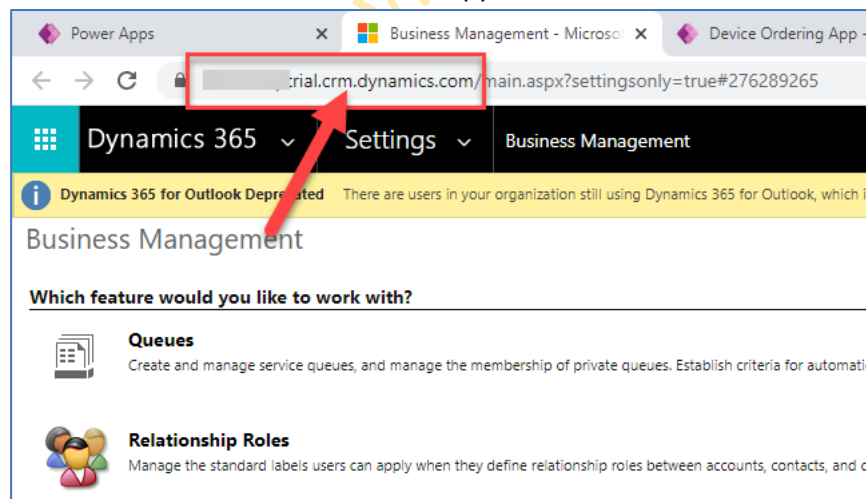
Add display column (optional) ⓘ
Example: true

OK Cancel

- Go to Power Apps Portal using <http://web.powerapps.com/>
- Click on the setting gear and select “Advanced settings”



- This will redirect us to D365 Portal. Copy URL.



- Paste to Server URL and click on OK.

Common Data Service (Legacy)

Server Url ⓘ
 https://b[redacted].crm.dynamics.com/

Advanced settings (optional)
 Reorder columns (optional) ⓘ
 Example: true

Add display column (optional) ⓘ
 Example: true

OK Cancel

5. Sign In with organizational account.

Cds

Organizational account

https://b[redacted].crm.dynamics.com/

You aren't signed in.

Sign in

Back Connect Cancel

6. Click on connect.

Cds

Organizational account

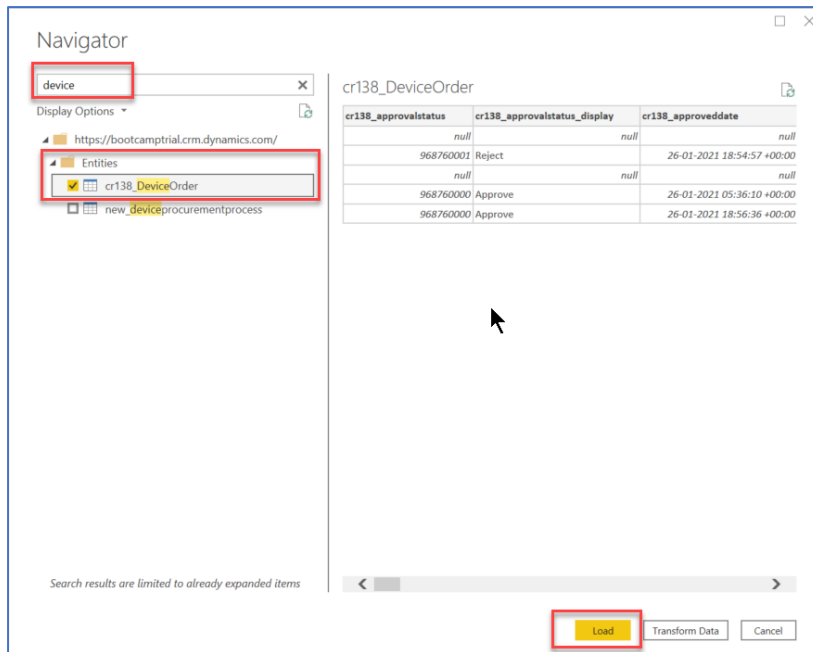
https://[redacted].crm.dynamics.com/

You are currently signed in.

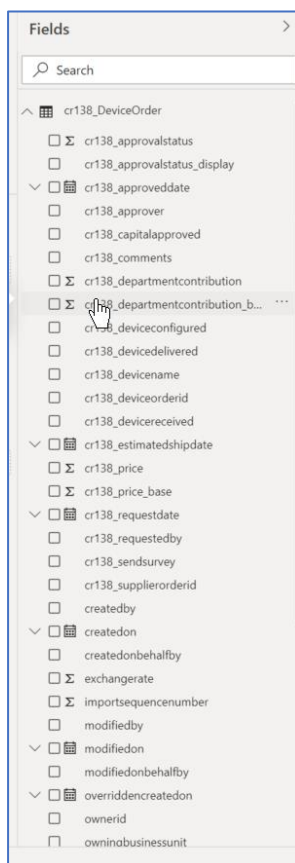
Sign in as different user

Back Connect Cancel

7. This will show all custom and system entities. Search for "Device Order" entity



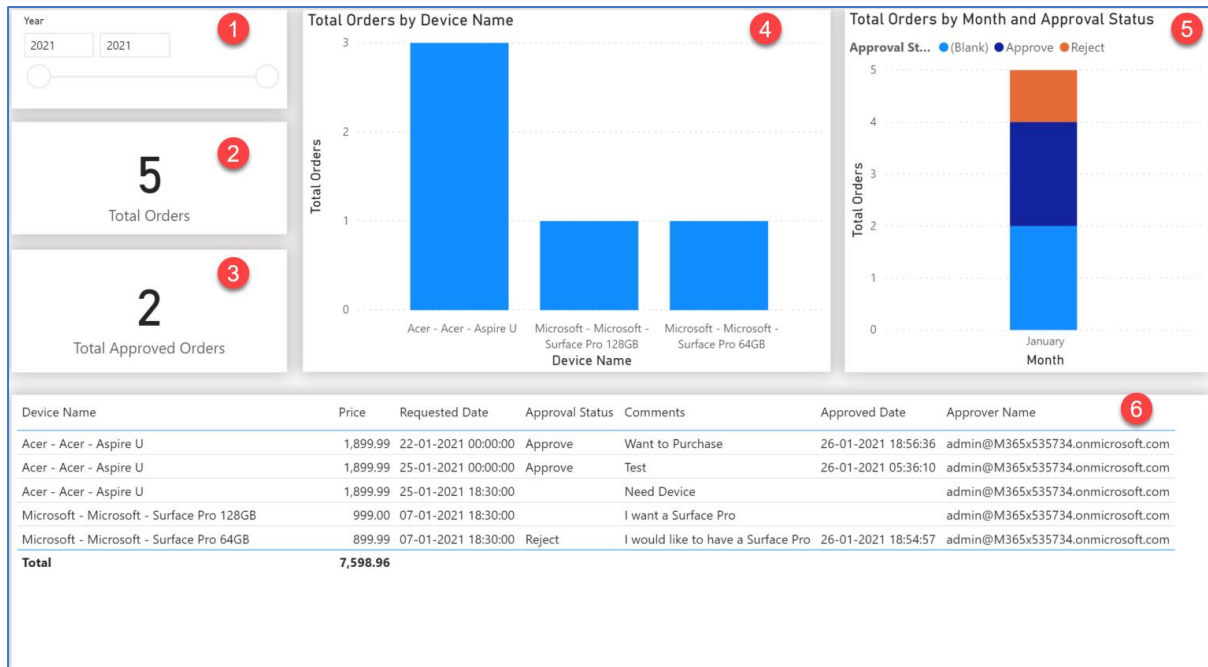
8. This will load all entities.
9. Once loaded this will show on the right side pane. The data has been loaded successfully.



Develop Power BI Report

At the end of the development, we will create a report like the following.

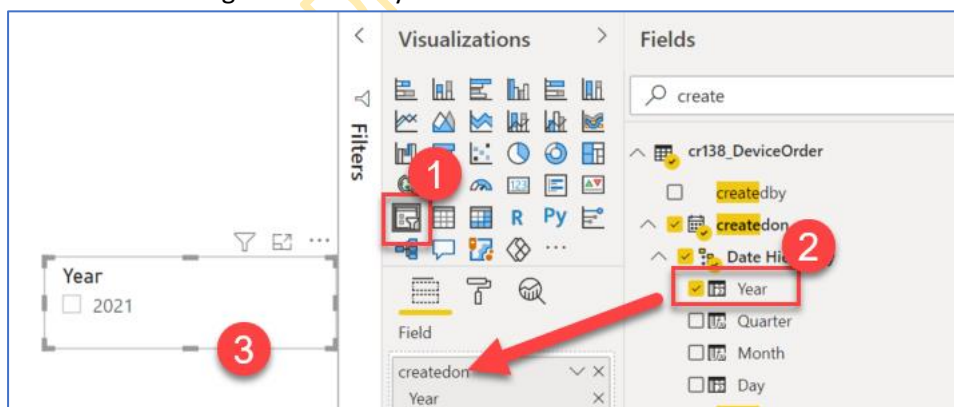
I have also uploaded a sample Power BI file to the GitHub repository. You can directly download the same from there. <https://github.com/Dhruvinshah16/Power-BI/tree/master/Global%20Power%20Platform%20Bootcamp%20-%20Power%20BI>



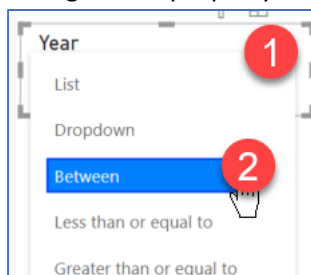
Let's build each component.

Slicer

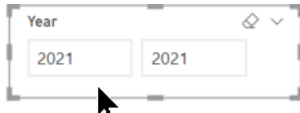
1. Add Slicer and drag Createdon's year field.



2. Change slicer property.

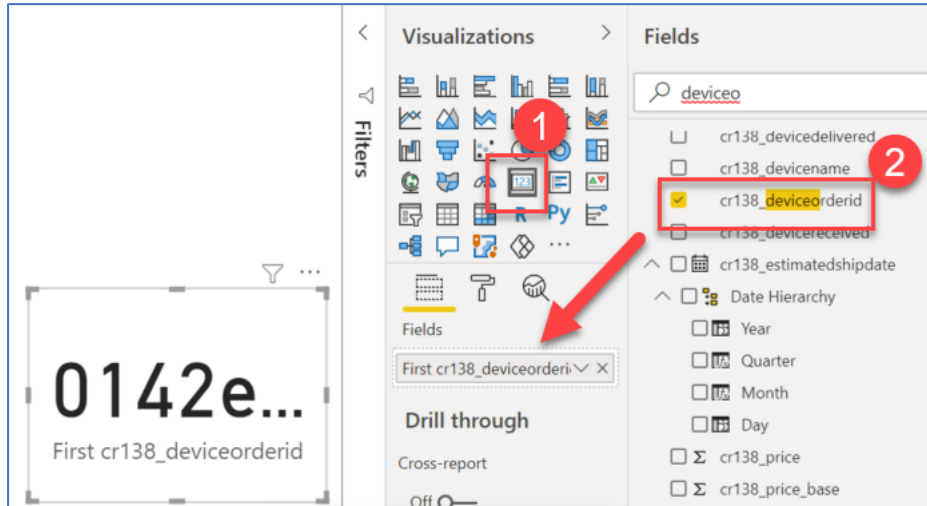


3. At the end, this will look like the following.

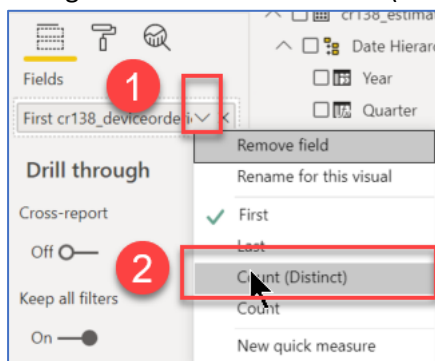


Total Orders

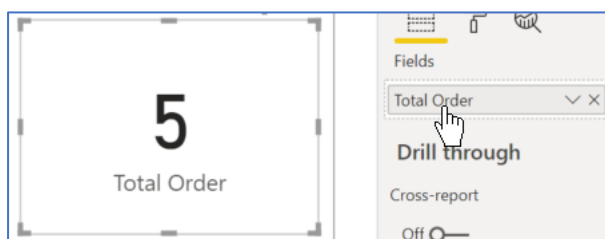
1. Add card visual and drag property "Deviceorderid"



2. Change summarization to Count(Distinct)

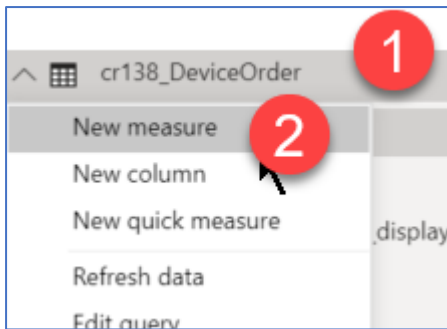


3. Rename column as "Total Order".



Approved Order

1. Right-click on the table and add "New measure".

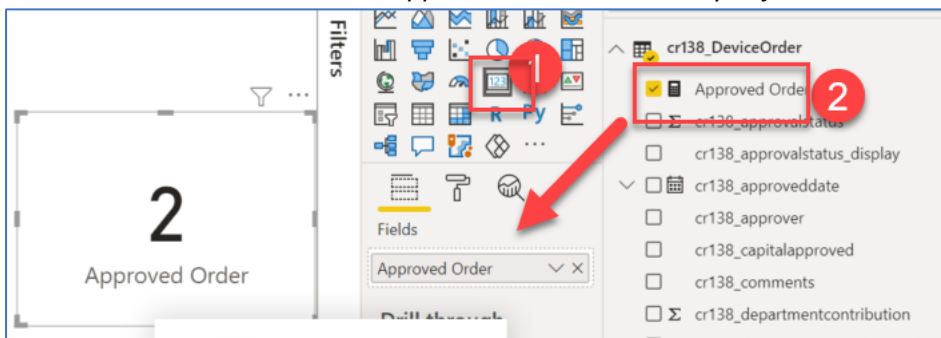


2. Add following formula

Approved Order =

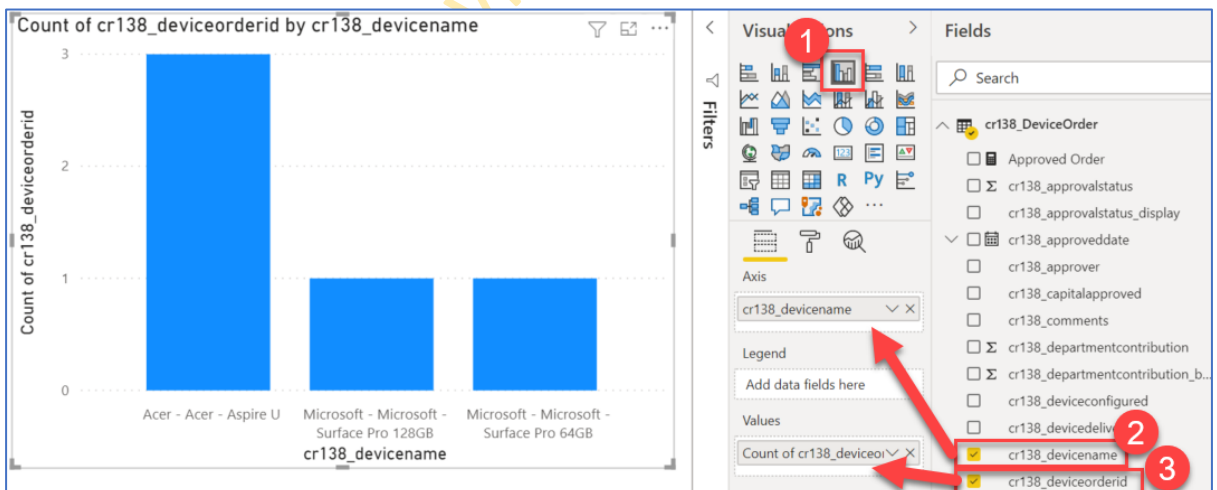
```
CALCULATE(DISTINCTCOUNT(cr138_DeviceOrder[cr138_deviceorderid]),cr138_DeviceOrder[cr138_approvalstatus_display]="Approve")
```

3. Add Card visualization and add "Approved Order" measure you just created!

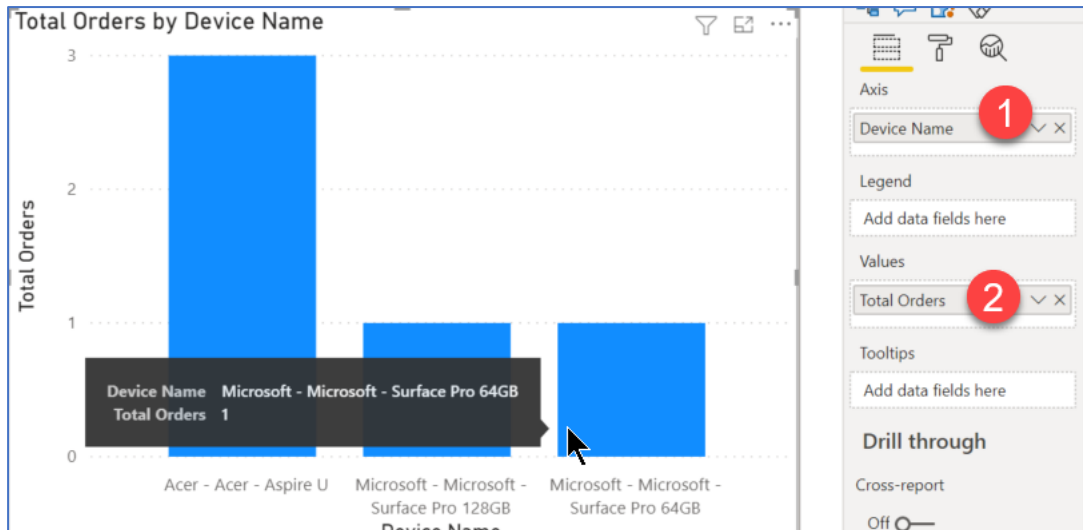


Total Orders by Device Name

1. Add "Clustered column" chart.



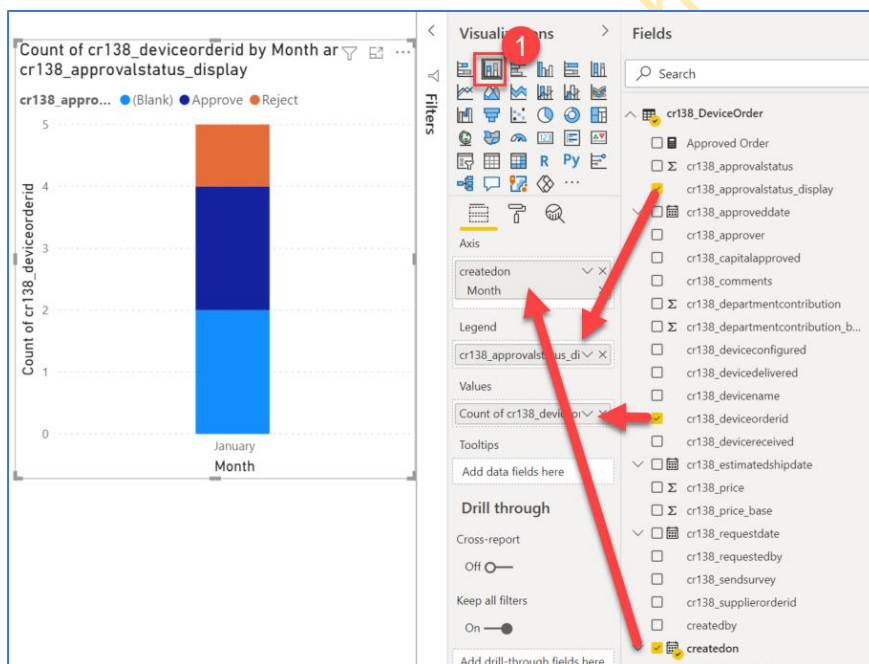
2. Drag properties.
 - a. Axis = Device Name
 - b. Values = DeviceOrderID
3. Rename the properties by double click on the same.
The graph will look like this.



Total Orders by Month and Approval Status

1. Add Stacked column chart and drag following properties.

- Axis = CreatedOn (Month)
- Legend = Approvalstatus_display
- Value = deviceorderid Count



2. Rename columns. The final graph will look like below.

Device Name	Price	Requested Date	Approval Status	Comments	Approved Date	Approver Name
Acer - Acer - Aspire U	1,899.99	22-01-2021 00:00:00	Approve	Want to Purchase	26-01-2021 18:56:36	admin@M365x535734.onmicrosoft.com
Acer - Acer - Aspire U	1,899.99	25-01-2021 00:00:00	Approve	Test	26-01-2021 05:36:10	admin@M365x535734.onmicrosoft.com
Acer - Acer - Aspire U	1,899.99	25-01-2021 18:30:00	Need Device			admin@M365x535734.onmicrosoft.com
Microsoft - Microsoft - Surface Pro 128GB	999.00	07-01-2021 18:30:00		I want a Surface Pro		admin@M365x535734.onmicrosoft.com
Microsoft - Microsoft - Surface Pro 64GB	899.99	07-01-2021 18:30:00	Reject	I would like to have a Surface Pro	26-01-2021 18:54:57	admin@M365x535734.onmicrosoft.com
Total	7,598.96					

Arrange All visuals and do formatting

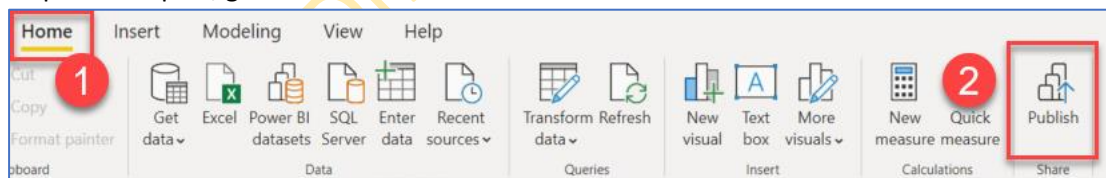
- Once you arrange all visual, report will look like following.



- Once you arrange all visual, perform formatting.

Publish Report

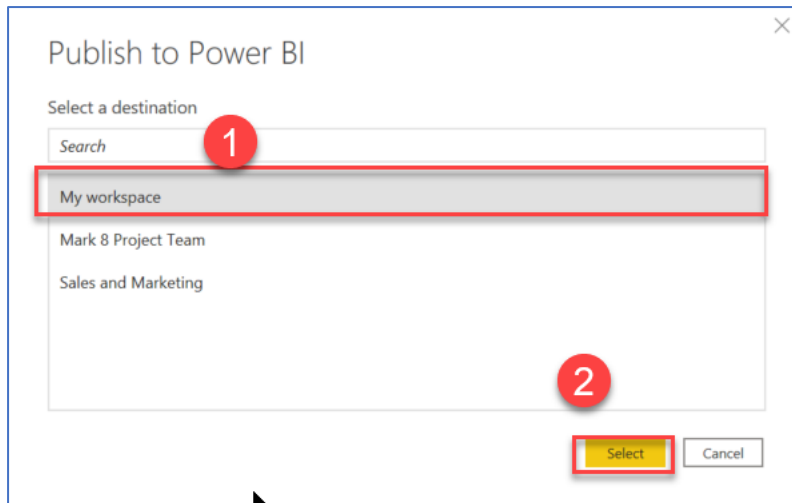
- To publish report, go to Home > Select Publish.



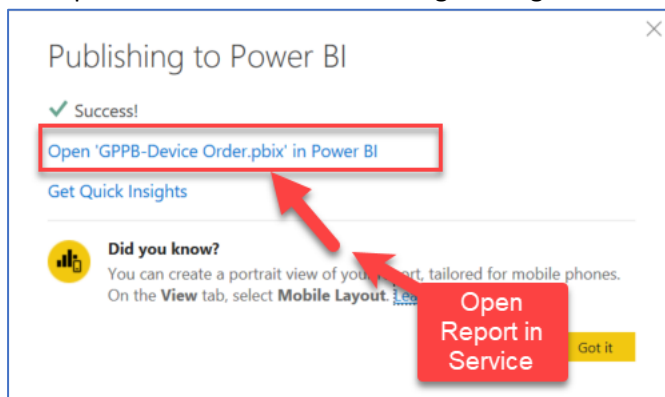
- Sign in with Office 365 account.

The screenshot shows a dialog box titled 'Enter your email address'. It contains a text input field and two buttons: 'Continue' and 'Cancel'.

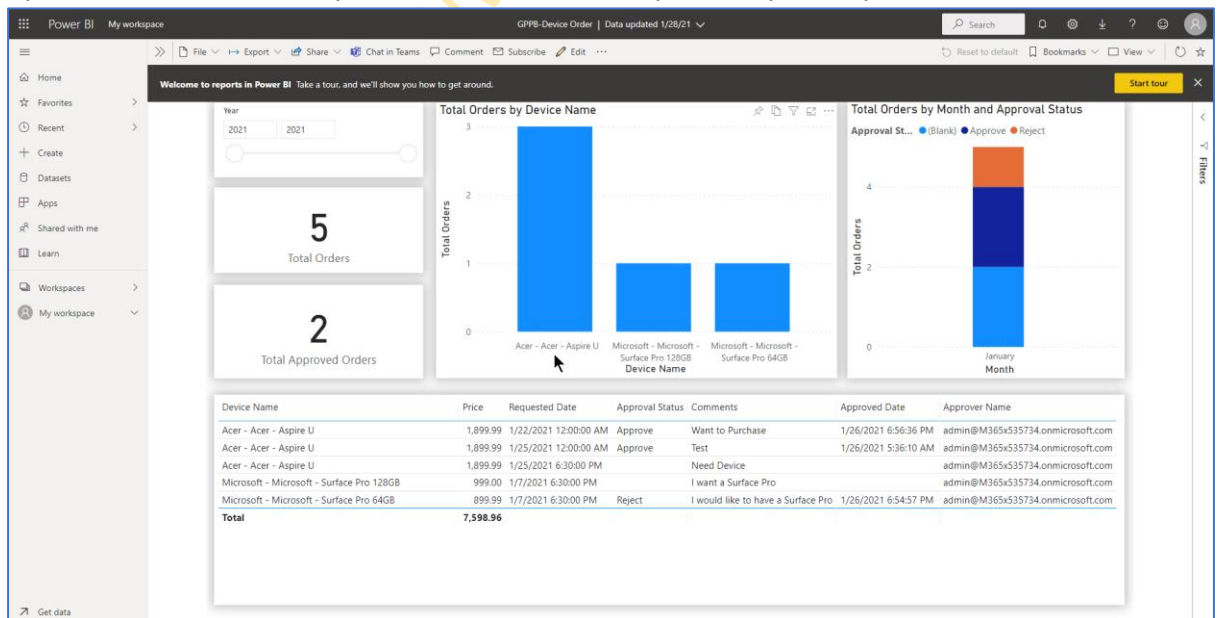
- Publish to my workspace.



4. Once published it will show following message.

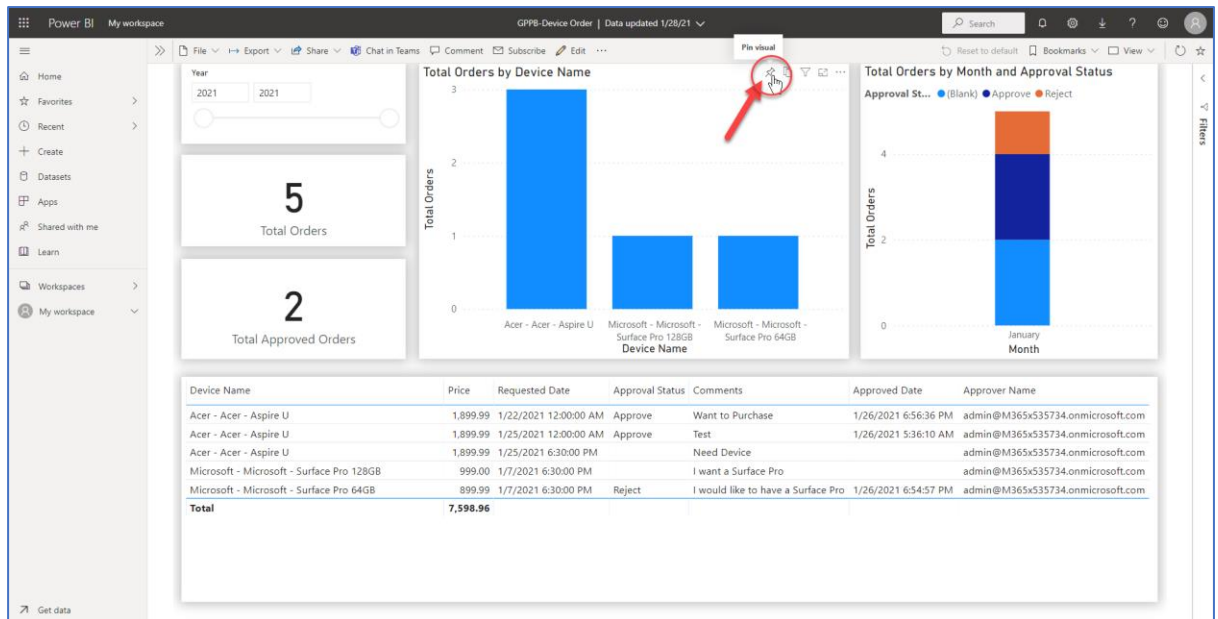


5. Open Power BI Service and you will able to view the report in My Workspace.



Build Dashboard from Power BI Report

1. Keep open your Power BI Service Report.
2. Select Power BI Visual from Service and Pin Visual.



3. Click on New dashboard

Pin to dashboard

Select an existing dashboard or create a new one.

Where would you like to pin to?

☐ Existing dashboard

☒ New dashboard

Dashboard name

Pin Cancel

4. Provide name for dashboard and click on Pin.

Pin to dashboard

Select an existing dashboard or create a new one.

Where would you like to pin to?

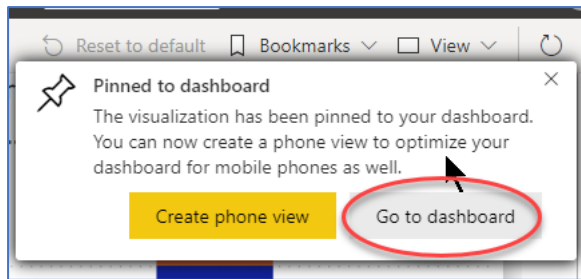
☐ Existing dashboard

☒ New dashboard

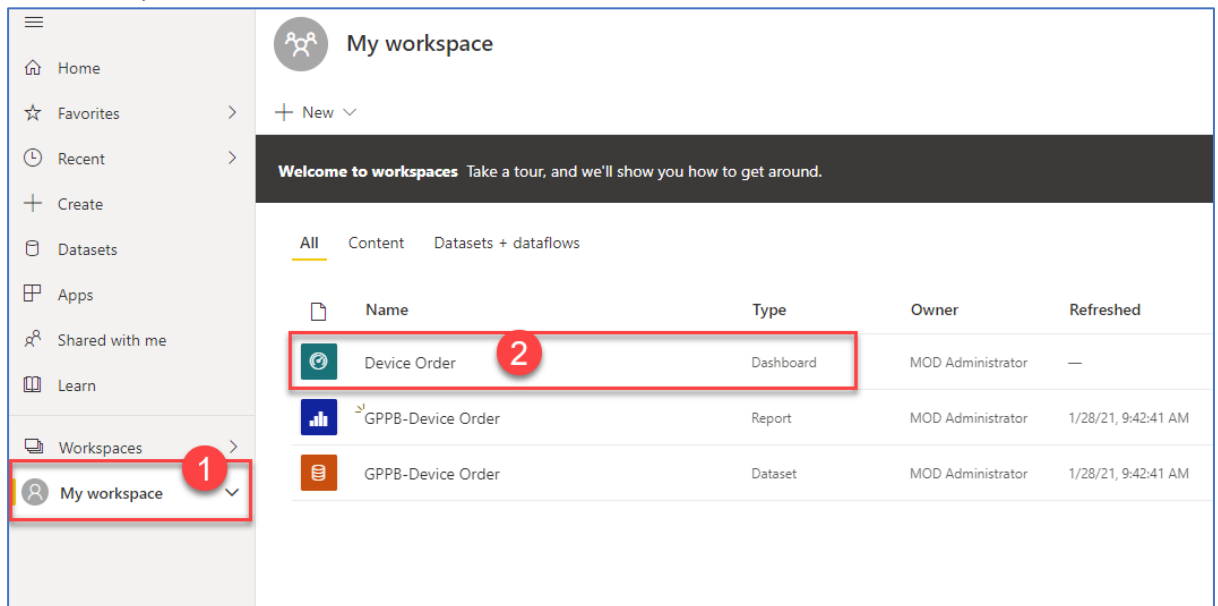
Dashboard name

Pin Cancel

5. Once it is Pinned, this will show notification.



6. Now, to open a dashboard from left navigation select “My Workspace”. Select the dashboard you created.

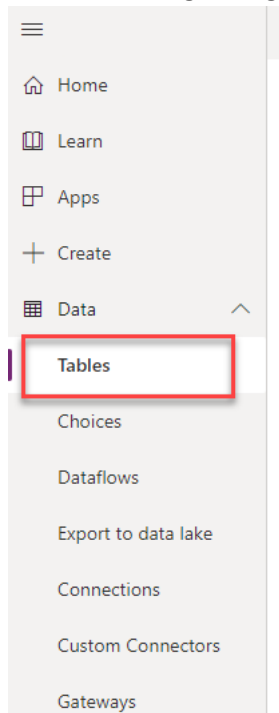


7. This will open following dashboard.

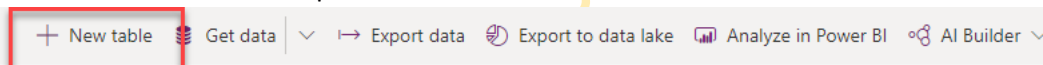


Build CDS or Dataverse Table

1. Open Power Apps Portal using <http://web.powerapps.com/>
2. From Left Navigation go to Data section, click on Tables.



3. Click on New Table from top ribbon.



4. Give the name for your table with Display Name column. Give the name of table as "Device Order".

New table ✕

Display name *

Plural display name *

Name * ⓘ

Primary Name Column ⓘ

Display name *

Name * ⓘ

☐ Enable attachments (including notes and files)

More settings ▾

Create **Cancel**

- Once table has been created it will appear in Grid. Click on table name.

Contoso Electronics Power Apps

+ New table Get data ▾ Export data Export to data lake Analyze in Power BI AI Builder ▾

Tables			
Activity	...	activitypointer	Custom
Address	...	customeraddress	Standard
Appointment	...	appointment	Standard
Attachment	...	activitymimeattachment	Standard
Business Unit	...	businessunit	Standard
Contact	...	contact	Standard
Currency	...	transactioncurrency	Standard
Device Order	...	cr138_deviceorder	Custom
Device Procurement Process	...	new_deviceprocurementprocess	Custom

- Now, let's create columns.
- Let's say, if we want to create column name as "Device Name", click on "Add column". Give Datatype as Text and make it required. Click on Done.

Display name *

Device Name

Name * ⓘ

cr138_ DeviceName

Data type * ⓘ

Text

Required * ⓘ

Required

☒ Searchable ⓘ

Description ⓘ

Required name field

Advanced options

Done Cancel

8. This will create a column Device Name.
9. Similar way creates all columns in the table. Please check below table schema.

Column Name	Datatype
Device Name	Text
Approval Status	Choice – Approve/Reject
Approved Date	Date Only
Approver	Email
Capital Approved	Yes/No
Comments	Multiline Text
Department Contribution	Currency
Department Contribution (Base)	Currency
Device Configured	Yes/No
Device Delivered	Yes/No
Device Received	Yes/No
Estimated Ship Date	Date Only
Exchange Rate	Decimal
Price	Currency
Price Base	Currency
Request Date	Date Only
Requested By	Email
Send Survey	Yes/No
Supplier Order ID	Text

10. Once all columns are created, the CDS schema will look like this.

Add column

Edit data in Excel

Get data

Export data

Export to data lake

AI Builder

Delete table

Settings

Custom

Search

Tables

Device Order

Columns

Relationships

Business rules

Views

Forms

Dashboards

Charts

Keys

Data

Display name ↑ ↓	Name ↓	Data type ↓	Type ↓	Customizable ↓	Required ↓	Search...
Approval Status	cr138_approvalstatus	Choice	Custom	✓	Optional	✓
Approved Date	cr138_approveddate	Date Only	Custom	✓	Optional	✓
Approver	cr138_approver	Email	Custom	✓	Required	✓
Capital Approved	cr138_capitalapproved	Yes/No	Custom	✓	Optional	✓
Comments	cr138_comments	Multiline Text	Custom	✓	Optional	✓
Currency	transactioncurrencyid	Lookup	Custom	✓	Optional	✓
Department Contribution	cr138_departmentcontribution	Currency	Custom	✓	Optional	✓
Department Contribution (Base)	cr138_departmentcontribution_base	Currency	Custom	✓	Optional	✓
(Deprecated) Traversed Path	traversedpath	Text	Custom	✓	Optional	✓
Device Configured	cr138_deviceconfigured	Yes/No	Custom	✓	Optional	✓
Device Delivered	cr138_devicedelivered	Yes/No	Custom	✓	Optional	✓
Device Name	cr138_devicename	Text	Custom	✓	Required	✓
Device Received	cr138_devicereceived	Yes/No	Custom	✓	Optional	✓
Estimated Ship Date	cr138_estimatedshipdate	Date Only	Custom	✓	Optional	✓
Exchange Rate	exchangerate	Decimal Number	Custom	✓	Optional	✓
Price	cr138_price	Currency	Custom	✓	Required	✓
Price (Base)	cr138_price_base	Currency	Custom	✓	Optional	✓
Request Date	cr138_requestdate	Date Only	Custom	✓	Optional	✓
Requested By	cr138_requestedby	Email	Custom	✓	Optional	✓
Send Survey	cr138_sendsurvey	Yes/No	Custom	✓	Optional	✓
Supplier Order ID	cr138_supplierorderid	Text	Custom	✓	Optional	✓

Conclusion:

This is how we can get started with report and dashboard development in Power BI.

Contact Me for any Query

Email	Dhruvinshah16@gmail.com
Social Media	https://linktr.ee/dhruvin.shah

Download Files:

<https://github.com/Dhruvinshah16/Power-BI/tree/master/Global%20Power%20Platform%20Bootcamp%20-%20Power%20BI>