

EDH Analytics Workshop

Enterprise Data Hub
GovTech



CONTENTS

For today's workshop

1. EDH Introduction
2. Use Cases
3. Table
4. Filter Panes
5. Designing and Extraction

Additional Slides Provided

1. Other Visualizations
2. Expressions
3. Useful Links

Enterprise Data Hub (EDH) is a WOG platform for Corporate Data

Data Governance Portal

- Manage data requests across multiple agencies
- Request for identifiable data on enterprises/ organisations in Singapore

Central Data Repository

- A single platform to access data shared across the Government
- Centralised catalogue of data shared by various source agencies

Faster access to data for better service delivery and insights

Analytics & Visualisations Dashboard

- View reports and dashboards on demand
- Analyse patterns and trends to derive actionable insights

Flexible Data Exchange

- Opt for scheduled data retrieval to support your operational needs
- Choose to access data real-time to analyse patterns and trends

Datasets

FY17 (Phase 1)



FY18



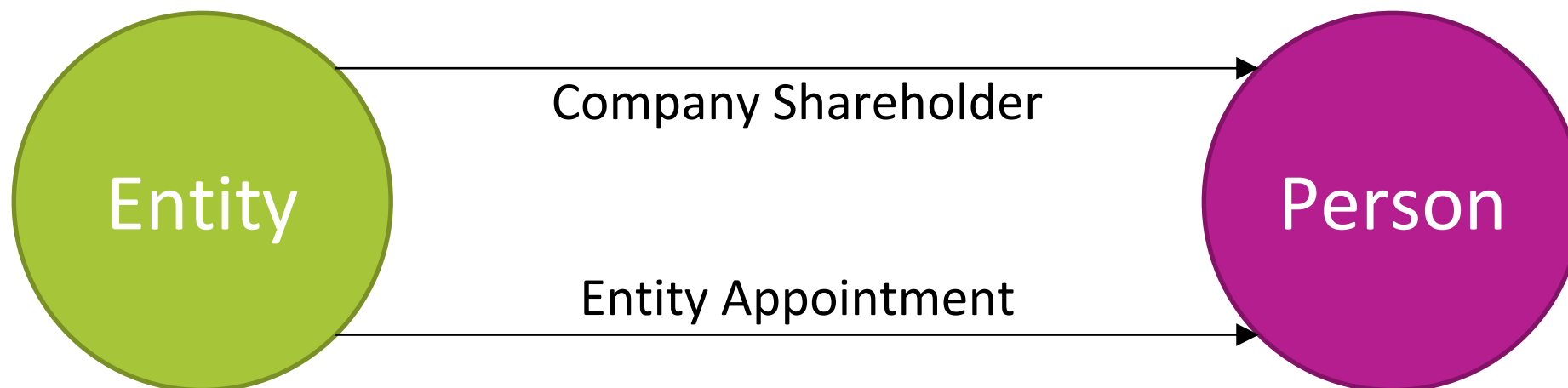
FY19

(to be assessed with source agencies)



Data Available

1. 2 main data groups: Entity data and Person data
2. Person data is connected to entity data if the person is a shareholder or hold an appointment
3. Entity data consist of basic company info, grant information, financial information, etc...
4. Person data consist of person address, nationality, ID number, etc...



Use Cases



Use Case 1: Finding out more about an entity

- ACRA BizInsight report (see right) provide information for an entity
- Information provided includes:
 - Particulars
 - Historical records
 - Charges
 - Appointments
 - Shareholders



BizInsights (Business Profile) Business Profile of ABC COMPANY

Particulars	
Name	: ABC COMPANY
Registration Number / UEN	: 12345678
Date of Registration	: 01-01-2018
Date of Change (Name)	: -
Commencement Date	: 01-01-2018
Date of Last Renewal	: -
Date of Expiry	: 01-01-2021
Constitution	: SOLE PROPRIETORSHIP
Registered Address	: 123 CHINATOWN STREET 1 SINGAPORE 123123
Date of Change (Address)	: -
Status	: LIVE
Status Effective Date	: 01-01-2018
Principal Activity Code (I)	: 12345
Principal Activity Description (I)	: FOOD AND BEVERAGE
Principal Activity Code (II)	: -
Principal Activity Description (II)	: -

Previous Alias(es)

This company has no previous alias

Use Case 1: Finding out more about an entity

- Agencies can now self-help and access to entity data on demand via the **Envision** dashboard.
- Quickly identify conflict of interest between directors and shareholding for procurement and request for tenders.

Particulars

EnVision-1 : Particulars

EXCEL MARCO SINGAPORE PTE. LTD. UEN: 200801909M

Entity Profile UEN Entity Name

Name	:	EXCEL MARCO SINGAPORE PTE. LTD.
Registration Number / UEN	:	200801909M
Date of Registration	:	25-01-2008
Date of Change (Name)	:	---
Country of Incorporation	:	SG
Company Type	:	PRIVATE COMPANY LIMITED BY SHARES
Registered Address	:	39 UBI ROAD 1 #05-00 WORLD PUBLICATIONS BUILDING SINGAPORE 408695
Foreign Address	:	---
Date of Change (Address)	:	17-09-2012
Contact Details	:	~(O)~(F)~(E)
Status	:	LIVE COMPANY
Status Effective Date	:	25-01-2008
Principal Activity (I)	:	28142 (Manufacture and repair of other off-road and gasfield machinery and)
Principal Activity (II)	:	71122 (Process and industrial plant engineering design and consultancy services)
Amalgamation Details	:	---
Date of Last AGM	:	30-09-2017
Date of Last AR	:	26-10-2017
Date of A/C Laid at Last AGM	:	31-03-2017

2-Additional Info 3-Appointments 4-Shareholders 5-Latest Financials 6-Financial Trends

Generated by EDM, Data updated as of 02-04-2018

Appointments

EnVision-3 : Appointments

EXCEL MARCO SINGAPORE PTE. LTD. UEN: 200801909M

Entity Profile UEN Entity Name

Auditor(s)

Name	Date of Appointment
T09LL008J	06-01-2009

Officer(s)

Name	ID	Nationality	Position	Date of Appointment	Date of Withdrawal	Address	Date of Address Change	Entity UEN
ONG BOON YING	S7014379Z	SINGAPORE CITIZEN	SECRETARY	09-11-2009	-	25 SIN MING VILLE SIN MING ROAD 78 Singapore 570025	09-06-2016	200801909M
DAVID ONG TZI HUN	S1574581I	SINGAPORE CITIZEN	DIRECTOR	25-01-2008	-	549 HORIZON GARDENS ANG MO KIO AVENUE 2 Singapore	18-01-2014	200801909M
CATHERINE LIM SIOK	S7540675D	SINGAPORE CITIZEN	SECRETARY	01-12-2008	09-11-2009	8 WILKIE EDGE WILKIE ROAD Singapore	05-04-2016	200801909M

1-Entity Particulars 2-Additional Info 4-Shareholders 5-Latest Financials 6-Financial Trends

Generated by EDM, Data updated as of 02-04-2018

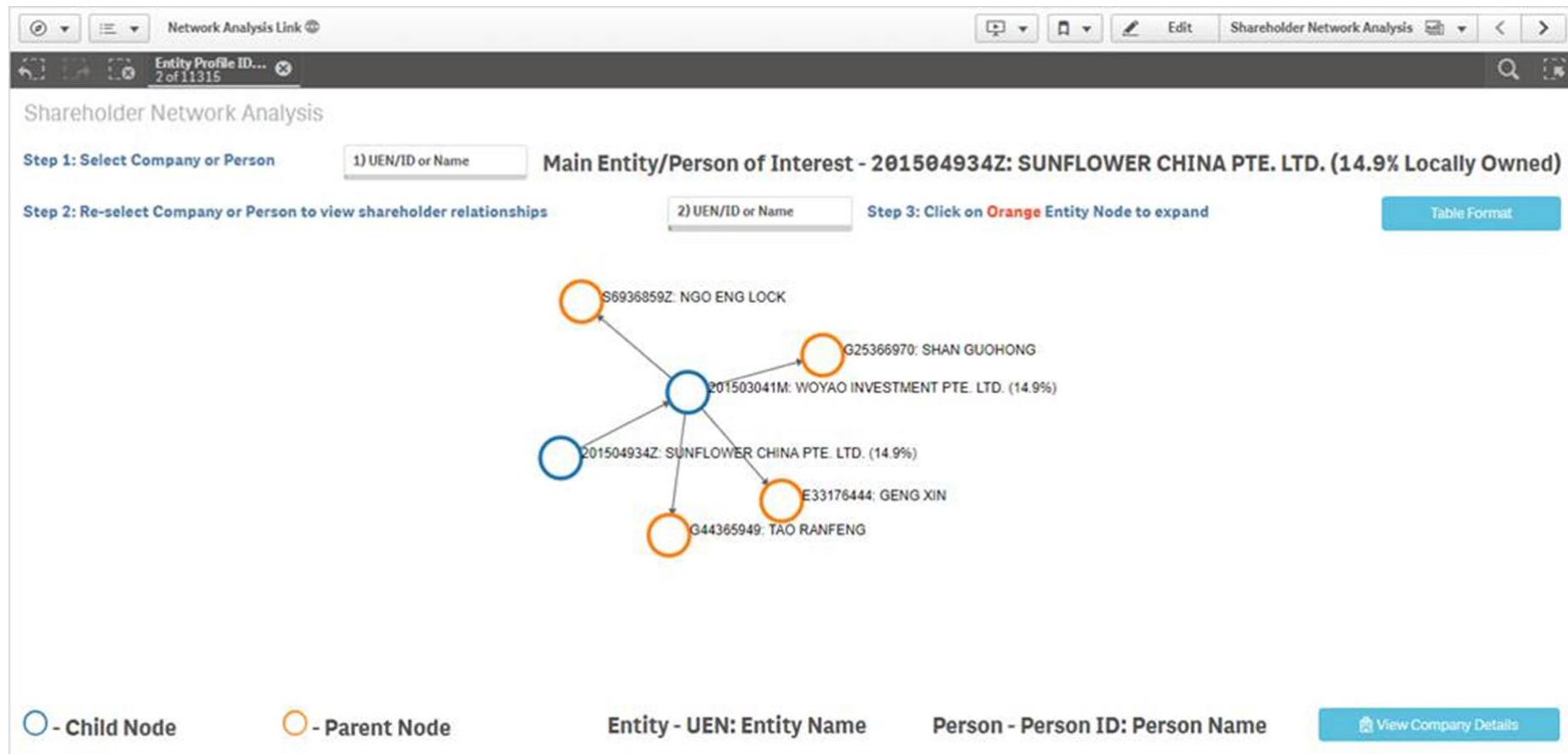
Shareholders

Financials

Previous UEN and Name

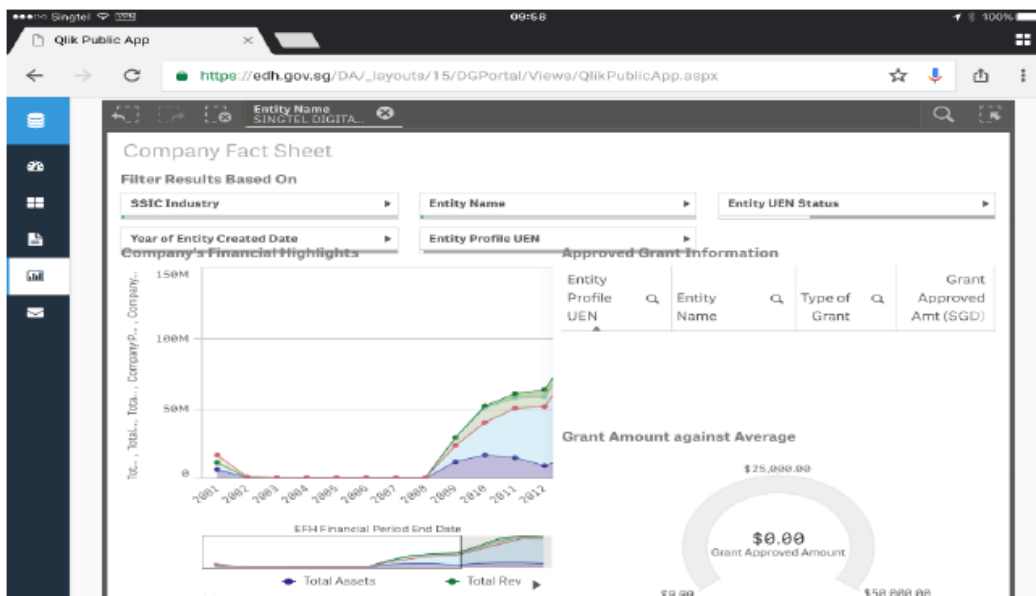
Use Case 2: Shareholder Network

- Enables the discovery of the ultimate shareholder of a particular entity and local shareholder percentages.

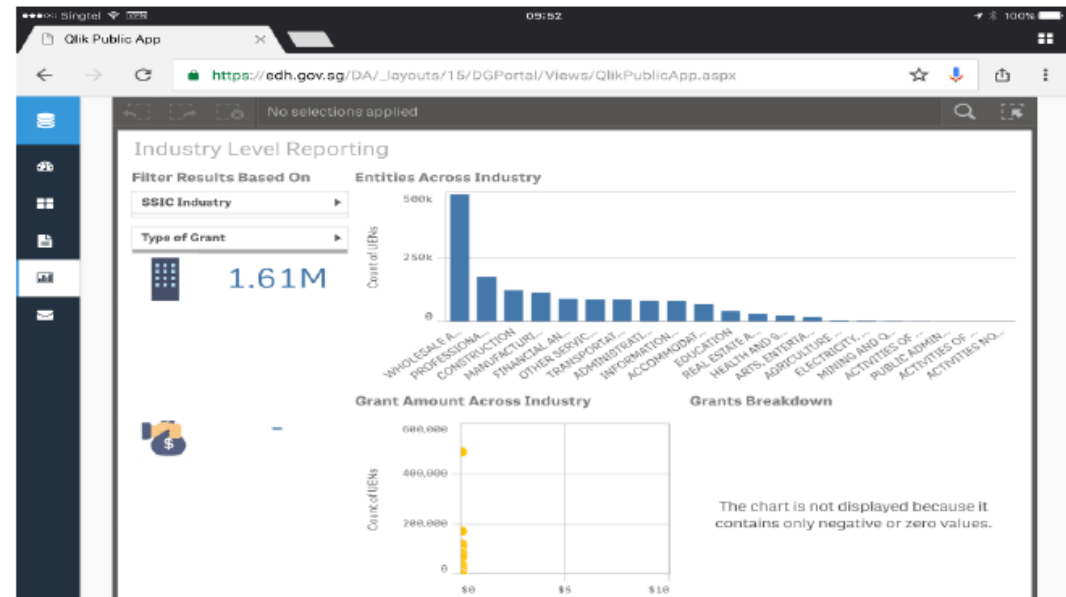


Use Case 3: Business Intelligence (BI) Tool

- Officers can use EDH's data and BI capabilities to create relevant reports and mash-ups for easy sharing among agencies.



Business-centric dashboard correlating verified multi-agency data for self-service operations and scheme administration.



Industry centric dashboards aggregating verified non-identifiable data for analytics purposes pertaining to scheme administration and policy.

Navigating EDH portal



<http://edh.gov.sg>

- Accounts are free and available for all government agencies to use via government intranet.
- Users must be CAT 2 cleared and have a valid use case to use the portal.
- Approval is done backend via the sign up page.



Enterprise Data Hub

The single source of truth for entity information within the Government.

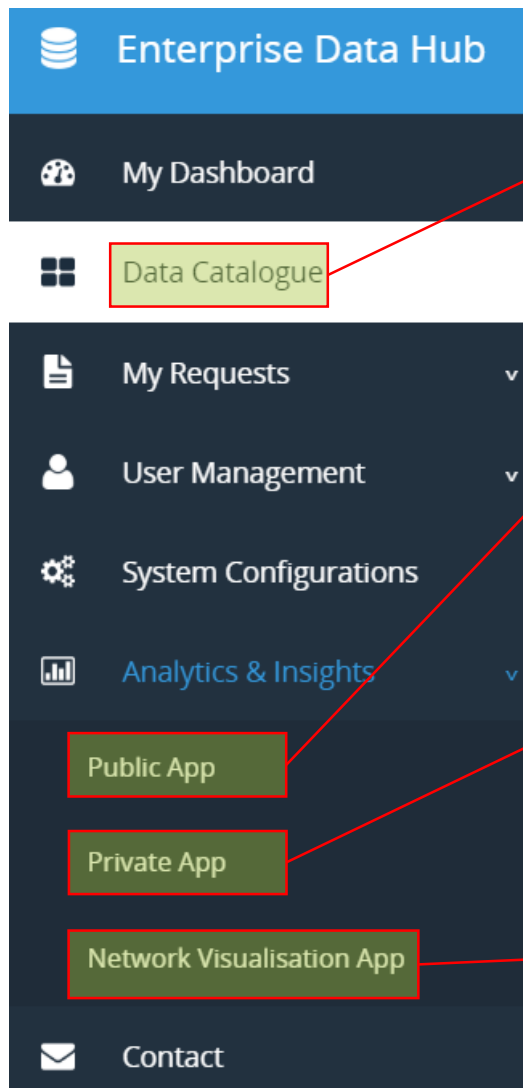
1,770,741

entity profiles available

EXPLORE DATA

LOGIN / SIGN UP

What is available in EDH?



- For seeking approval of datasets, and understanding the data fields

- Assess community sheets created by other users. Eg EnVision
- Create your own visualization sheets using EDH data.
- Export your data via pdf, excel, csv etc

- Upload your own data to do your own visualization
- Link your data with existing EDH data

- Shareholder network analysis
- Subsidiary network analysis

Data Catalogue



Data Catalogue



Step 1

Select your required datasets



Step 2

Choose your mode of access



Step 3

Enter your request details

Entity

Source

You are viewing the catalogue in Entity View Mode - Recommended for dashboard and API requests.

0 My Cart

Pre-approved Data

[Analytics Packages](#) ⓘ

[Individual Data Items](#) ⓘ

[Entity API GET Packages](#) ⓘ

Approval Required

[CPF Contribution Data](#) ⓘ

[Foreign Employee Data](#) ⓘ

[Tenancy Performance Data](#) ⓘ

[Entity API UPDATE Packages](#) ⓘ

Search Catalogue



Analytics Packages



Company Shareholder's Relationship Package

Add to Cart

Includes the following:
Entity Information, People Information, Financial
Information, Grants Information, Entity Vehicle
Ownership Information, Builder Information,
Contractor Information, CorpPass Information and
Licence Information
Standard Package (Entity + People + Financial +
Grants + Entity Vehicle Ownership + Builder +
Contractor + CorpPass + Licence Information)

[View Details](#)

Add to Cart



Suggest a new Package

Data Catalogue

- View the description of the data fields and the sample data format

Standard Package (Entity + People + Financial + Grants + Entity Vehicle Ownership + Builder + Contractor + CorpPass + Licence Information)			
Show	10	entries	Search: <input type="text"/>
S/N	Data Category	Remarks	
1	Builder Information		
2	Contractor Information		
3	CorpPass Information		
4	Entity Information		
5	Entity Vehicle Ownership Information		
6	Financial Information		
7	Grants Information		
8	Licence Information		
9	People Information		
Showing 1 to 9 of 9 entries			

Builder Information				
Show	10	entries per page	Search:	<input type="text"/>
S/N	Definition	Remarks	Format	Sample Data
1	[BuilderInformation] BLS Application Type	Builder Licensing Scheme Application Type (Builder Information)	R	
2	[BuilderInformation] Company Additional Information	Company Additional Information (Builder Information)	PURSUANT TO SECTION 29I(6) OF THE BUILDING CONTROL ACT AND WITH EFFECT FROM 9 OCTOBER 2017 THE BUILDER'S LICENCE IS SUBJECT TO THE FOLLOWING CONDITION (S):- THE BUILDER IS NOT ALLOWED TO ENTER INTO ANY CONTRACTS OR ENGAGEMENTS FOR AN ESTIMATED FINAL PRICE OF NOT MORE THAN \$6 MILLION .	
3	[BuilderInformation] Entity Profile ID	EDH generated Number	123456	
4	[BuilderInformation] Factless Builder Information ID	Builder Information ID (EDH Generated ID)	123	

Data Catalogue

- Step 1: Select your required datasets for approval. You can only view approved data.

Step 1 Select your required datasets

Step 2 Choose your mode of access

Step 3 Enter your request details

Entity Source You are viewing the dashboard and API requests.

0 My Cart

Pre-approved Data

- Analytics Packages ⓘ
- Individual Data Items ⓘ
- Entity API GET Packages ⓘ

Approval Required

- CPF Contribution Data ⓘ
- Foreign Employee Data ⓘ
- Tenancy Performance Data ⓘ
- Entity API UPDATE Packages ⓘ

Search Catalogue

Enter Keyword...

Approval Required

CPF Contribution Information

CPF Contribution Data (Industry Aggregated Analytics Package)

Add to Cart


Add to Cart


① Identify the additional datasets required


② Add the selected dataset to cart

Select how you access the data

Step 2: Choose your mode of access

 **Step 1**
Select your required datasets

 **Step 2**
Choose your mode of access

 **Step 3**
Enter your request details

How would you like to access your data? *

Analytics



Access data through reports for your analysis.

- View the data via the analytics and Insights tab
- Good for adhoc requests and small datasets.

API



Access real-time data from your application.

- Link the data to your existing servers/applications
- Good when real time data is required constantly for web applications
- Firewall access is required

Batch



Access data for your operations and backend processing.

- Download large datasets via SFTP. Exported file format in CSV.
- Do your visualization and analytics offline on your desktop.
- Firewall access is required

Select how you access your data



Step 1

Select your required datasets



Step 2

Choose your mode of access



Step 3

Enter your request details

How would you like to access your data? *

Analytics



Access data through reports for your analysis.

API



Access real-time data from your application.

Batch



Access data for your operations and backend processing.

System Administrator will provide you with the requested data file to be used in Analytics & Insights > Private App

Request for selected entities: *

☒ All Entities ☐ By UEN ☐ By Industry

Request by selected entities/specific UENs or by industry

Data Access period on how long data can be viewed. Eg project period

Data Access to Start On *

24-07-2019



To (optional)



Leave blank to access data indefinitely.

Your data will be provisioned starting from 24 July 2019 .

Enter your request details



Step 1

Select your required datasets



Step 2

Choose your mode of access



Step 3

Enter your request details

Please give a one-line summary of this request *

Enter a short description about your request

(Maximum 100 characters)

Please provide reasons/justifications for this request *

Tell us why you require the data

(Maximum 2000 characters)

Insufficient justifications for data requests may result in rejection of requests.

If data requested is required to carry out statutory functions, please state the relevant law and sections.

Attach Supporting Document(s) (Mandatory for Approval Required Dataset (eg. CPFB/MOM))

No file chosen

Attachments should include approval emails or other necessary documents to support the justifications for your data request.

Attachment formats supported: PDF, DOC, DOCX, PNG, JPEG, TIFF, TXT.

Please upload no more than 5 files and each file size should not exceed 5MB.

Undertaking to Terms of Use *

Please note that the data you are requesting is subject to the following terms of use:

- [General Terms of Use](#)

☐

I have read and agree to abide by the terms of use.

Explain why you
require the data

Analytics & Insights



Public App

The screenshot displays the 'Public App' interface. At the top, a navigation bar shows 'Analytics & Insights > Public App' highlighted in a red box. The main content area features a header for 'EDH_Dashboard' with a logo and metadata: 'Data last loaded: Oct 7, 2019, 4:02 AM', 'Published: May 12, 2019, 12:37 AM', and 'Published to: EDH'. Below this, a tabbed interface shows 'Sheets', 'Bookmarks', and 'Stories'. A 'Create new sheet' button is visible. The 'Base sheets (7)' section is expanded, showing 'Published by me (1)', 'My sheets (36)', and 'Community (133)' (highlighted in a red box). A large green text box with a red border contains the following text: 'For sheets used by multiple users, you can publish the sheet so that everyone can view a common dashboard. Create your own dashboards for private use and viewing under my sheets. Community sheets are useful dashboards that different users and agencies have created for sharing'. To the right of this text is a dropdown menu set to 'Alphabetically'. Below the text box, a grid of sheet thumbnails is displayed, each with a bar chart icon and a title. The titles include: '(DAU) All Connections with...', '(HH) Time Series Beta', '[HH] Industry Overview - Grants', '[HH] Industry Overview Beta', 'ACRA BizFile', 'ACRA BizFile (1) (1)', 'ACRA Combine (Dec 2018)', and 'ACRA Company Particulars (1)'. The bottom row shows the first two thumbnails with the EDH_Dashboard logo.

Analytics & Insights > Public App

EDH_Dashboard

Data last loaded: Oct 7, 2019, 4:02 AM
Published: May 12, 2019, 12:37 AM
Published to: EDH

Sheets Bookmarks Stories

Create new sheet

Base sheets (7)

Published by me (1)

My sheets (36)

Community (133)

For sheets used by multiple users, you can publish the sheet so that everyone can view a common dashboard
Create your own dashboards for private use and viewing under my sheets
Community sheets are useful dashboards that different users and agencies have created for sharing

Alphabetically

(DAU) All Connections with...

(HH) Time Series Beta

[HH] Industry Overview - Grants

[HH] Industry Overview Beta

ACRA BizFile

ACRA BizFile (1) (1)

ACRA Combine (Dec 2018)

ACRA Company Particulars (1)

Community Sheets > Envision

EDH_Dashboard

EnVision-1 : Particulars

No selections applied

EnVision-1 : Particulars

Entity Particulars

Name

Registration Number / UEN

Date of Registration

Date of Change (Name)

Date of Deregistration

Entity Type

Registered Address

Foreign Address

Date of Change (Address)

Contact Details

Status

Status Effective Date

Principal Activity (I)

Principal Activity (II)

UEN Status

UEN Issuance Agency

UEN Issued Date

Select 1 Entity/UEN

Entity Profile UEN

Entity Name

Search by Entity
UEN or Entity Name

UEN:

...

×

✓

Search

PANIRA GROUP INC.

_ALLWENEED.

- TRANSLINER HOLDINGS PTE. LTD.

- XANDER STRATEGIC OFFICE DEVE...

-3 PAR SPORTS PTE. LTD.

-18C FROZEN YOGURT CAKES PRIV...

-18C GROUP

-ACEUP PTE. LTD.

2-Additional Info

3-Appointments

4-Shareholders

5-Latest Financials

6-Financial Trends

Generated by EDH.

Data updated as of 6-10-2019

GOVTECH

SINGAPORE

Community Sheets > Envision

EDH_Dashboard

EnVision-1 : Particulars

Entity Profile UEN 40005500K

Filtered UEN will appear here. Click on the X to clear selection

EnVision-1 : Particulars

TRANSPHERE JEWELLERS

UEN: 40005500K

Entity Profile UEN

Entity Name

Name	:	TRANSPHERE JEWELLERS
Registration Number / UEN	:	40005500K
Date of Registration	:	06-10-1988
Date of Change (Name)	:	12-10-1989
Date of Commencement	:	04-10-1988
Constitution	:	SOLE_PROPRIETORSHIP
Registered Address	:	35 SELEGIE ROAD #10-22 PARKLANE SHPG MALL SINGAPORE 188307
Foreign Address	:	--
Date of Change (Address)	:	12-10-1989
Contact Details	:	-(O) -(F) (E)
Status	:	TERMINATED
Status Effective Date	:	09-06-1990
Principal Activity (I)	:	46421 (Wholesale of jewellery made from precious metals and stones)
Principal Activity (II)	:	--
Date of Last Renewal	:	13-10-1989
Date of Expiry	:	06-10-1990

2-Additional Info

3-Appointments

4-Shareholders

5-Latest Financials

6-Financial Trends

Generated by EDH.
Data updated as of 6-10-2019

Entity Profile UEN

- Company UEN (9 digits): Private/ Exempt/ LLP

2018XXXXXA

1900XXXXXB

Local
Registered
Companies

Foreign Registered Companies

TXXUFXXXXC

Registered
Year

- Business UEN (8 digits): Sole Proprietorship/ Partnership

3XXXXXXXXA

4XXXXXXXXB

5XXXXXXXXC

Community Sheets > Envision

EDH_Dashboard

EnVision-3 : Appointments

Entity Name
TRANSPHERE JE...

EnVision-3 : Appointments

TRANSPHERE JEWELLERS

UEN: 40005500K

Appointments/Key Personnels

Entity Profile UEN

Entity Name

Name	ID/UEN	Nationality	Position	Date of Appoi...	Date of Withd...	Address
WEE TIEW MING		SINGAPORE CITIZEN	MANAGER	04-10-1988	-	235 ANG MO KIO AVENUE 3 #04-1104 SINGAPORE 560235
WEE TIEW MING		SINGAPORE CITIZEN	OWNER	04-10-1988	-	235 ANG MO KIO AVENUE 3 #04-1104 SINGAPORE 560235
WEE TIEW MING		SINGAPORE CITIZEN	OWNER	-	-	235 ANG MO KIO AVENUE 3 #04-1104 SINGAPORE 560235

1-Entity Particulars

2-Additional Info

4-Shareholders

5-Latest Financials

6-Financial Trends

Network visualization app

Analytics & Insights > Network Visualisation App

Help Welcome, Judi (Admin)

Network Analysis Link

Network Analysis Link
Data last loaded: Oct 7, 2019, 4:36 AM
Published: Jul 14, 2019, 1:37 AM
Published to: EDH

Sheets Bookmarks Stories

Create new sheet

▼ Base sheets (4)

Shareholder Network Analysis

Shareholder Information (Table..)

Subsidiary Network Analysis

Subsidiary Shareholder ...

Bottom up analysis from
shareholders to parent company

Top down analysis from parent
to subsidiary

Shareholder Network Analysis

Network Analysis Link

Shareholder Network Analysis

Entity Profile ID...
200100409W: M...

Search

Shareholder Network Analysis

Step 1: Select Company or Person

1) UEN/ID or Name

Main Entity of Interest - 200100409W: MR BEAN FRANCHISE INTERNATIONAL PTE. LTD. (91.3% Locally Owned)

Step 2: Re-select Company or Person to view shareholder relationships

2) UEN/ID or Name

Step 3: Click on **Orange** Entity Node to expand

Table Format

Filter by company or person

```
graph BT; A((201508613E: FOOD UNITED HOLDINGS (S) PTE. LTD. (91.3%))) --> B((200100409W: MR BEAN FRANCHISE INTERNATIONAL PTE. LTD. (91.3%)))
```

The diagram shows a network of two entities. At the top is an orange node representing '201508613E: FOOD UNITED HOLDINGS (S) PTE. LTD. (91.3%)'. A line connects it to a blue node below, representing '200100409W: MR BEAN FRANCHISE INTERNATIONAL PTE. LTD. (91.3%)'. The orange node is the parent, and the blue node is the child.

○ - Child Node

○ - Parent Node

Company - UEN: Company Name

Person - Person ID: Person Name

View Company Details

Subsidiary Network Analysis

Network Analysis Link

Subsidiary Network Analysis

Entity Profile ID...
2 of 776191

Subsidiary Network Analysis

Step 1: Select Company or Person

1) UEN/ID or Name

Main Entity of Interest - 201217834C: HONESTBEE PTE. LTD. (93.7% Locally Owned)

Step 2: Re-select Company or Person to view subsidiary relationships

2) UEN/ID or Name

Step 3: Click on Blue Entity Node to expand

Table Format

Filter by company or person

○ - Child Node

○ - Parent Node

Company - UEN: Company Name

Person - Person ID: Person Name

View Company Details

Subsidiary Network Analysis

Network Analysis Link

Subsidiary Shareholder Info...

Entity Profile ID...
2 of 776191

Subsidiary Shareholder Information (Table)

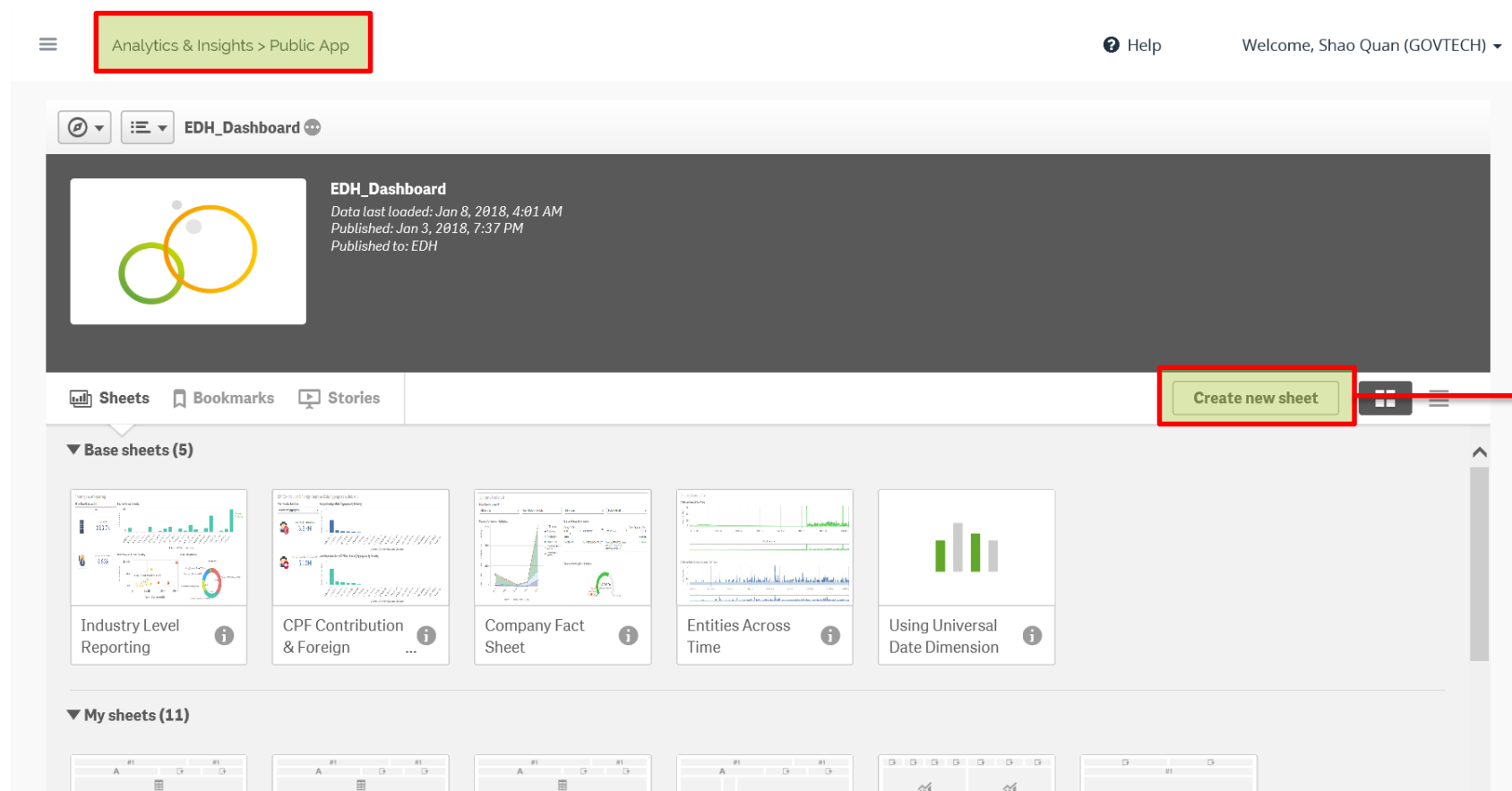
« Back to Network Analysis

Shareholder UEN/ID	Shareholder Name	Shareholder Type	% of Allotted Shares	Subsidiary UEN	Subsidiary Name	Subsidiary Local Share %
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201541739H	CHARLIE PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201628375Z	BEELAUNDRY PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201628378M	BEE2B PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201628379D	BEEPLOYMENT PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201628382Z	SUMO PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201700841G	PAYNOW PTE. LTD.	93.7%
201217834C	HONESTBEE PTE. LTD.	Company	100.0%	201822967E	HONESTBEE HABITAT PTE. LTD.	93.7%
201628379D	-	-	-	-	-	-

Creating your own sheets

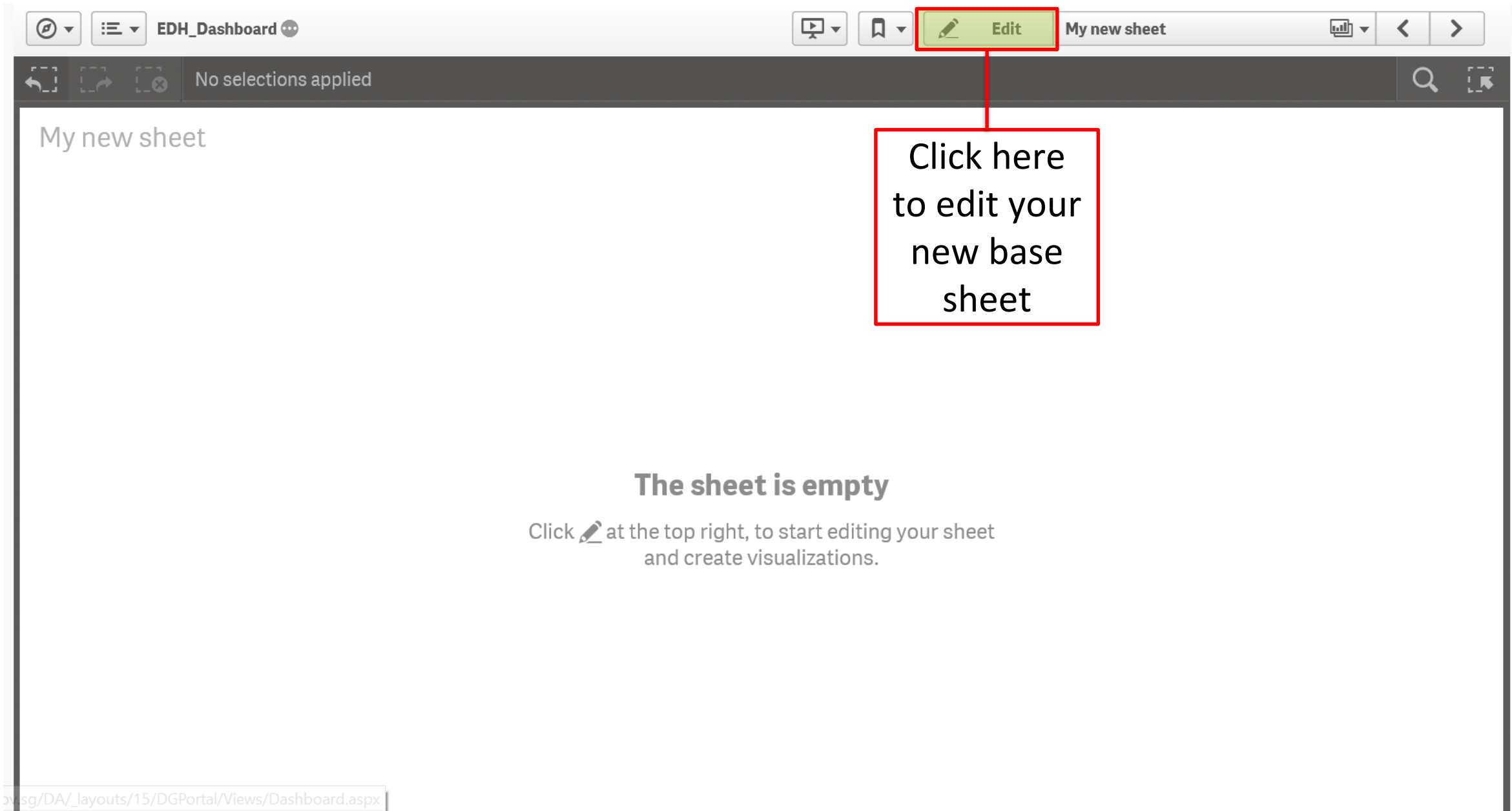


Create your own sheets



The screenshot shows the EDH Dashboard interface. At the top, there is a navigation bar with a menu icon, the text "Analytics & Insights > Public App", a help icon, and the user name "Welcome, Shao Quan (GOVTECH)". Below the navigation bar, the dashboard header displays the "EDH_Dashboard" title, a logo with two overlapping circles, and metadata: "Data last loaded: Jan 8, 2018, 4:01 AM", "Published: Jan 3, 2018, 7:37 PM", and "Published to: EDH". A tab bar below the header contains "Sheets", "Bookmarks", and "Stories". A green "Create new sheet" button is located on the right side of the dashboard, highlighted with a red box. Below the tab bar, there are two sections: "Base sheets (5)" and "My sheets (11)". The "Base sheets (5)" section displays five preview cards for different data visualizations: "Industry Level Reporting", "CPF Contribution & Foreign", "Company Fact Sheet", "Entities Across Time", and "Using Universal Date Dimension". The "My sheets (11)" section shows a row of sheet thumbnails.

Click here
to create a
new base
sheet



The screenshot shows the EDH Dashboard interface. At the top, there is a navigation bar with the title 'EDH_Dashboard' and several icons. On the right side of the navigation bar, there is a tab labeled 'My new sheet'. Below the navigation bar, there is a toolbar with icons for undo, redo, and delete, followed by the text 'No selections applied'. The main area of the dashboard is titled 'My new sheet' and contains the text 'The sheet is empty'. A red box highlights the 'Edit' button in the top right corner of the dashboard, with a callout box pointing to it that says 'Click here to edit your new base sheet'.


EDH_Dashboard

My new sheet

No selections applied

My new sheet

The sheet is empty

Click  at the top right, to start editing your sheet and create visualizations.

Click here to edit your new base sheet

govsg/DA/_layouts/15/DGPortal/Views/Dashboard.aspx

Done

My new sheet

Charts

Search

Bar chart

Combo chart

Filter pane

Gauge

#1 KPI

Line chart

Map

Pie chart

Pivot table

Scatter plot

Table

Text & image

Treemap

My new sheet

Good to show distribution

To provide filter capabilities for basesheet users

Good to show numbers

Good to show trend over time

Good to show proportions

Good to display a list of information

Good to show a single text information

My new sheet

Click to add title

Click here to add new field

Add column

Add dimension

Data

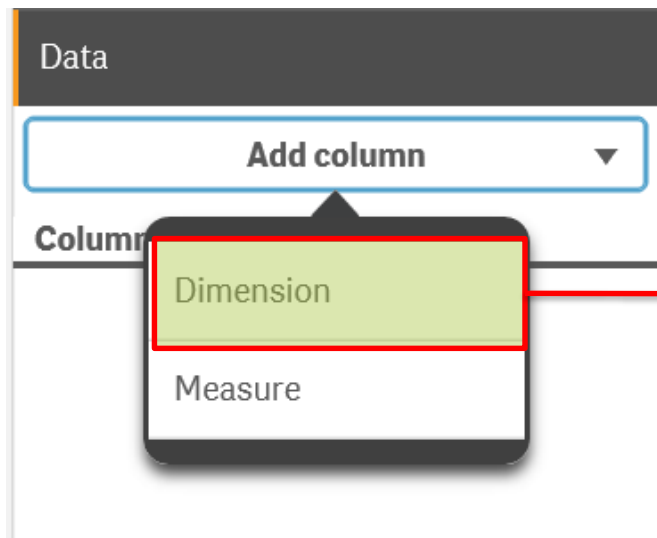
Columns

No data

Sorting

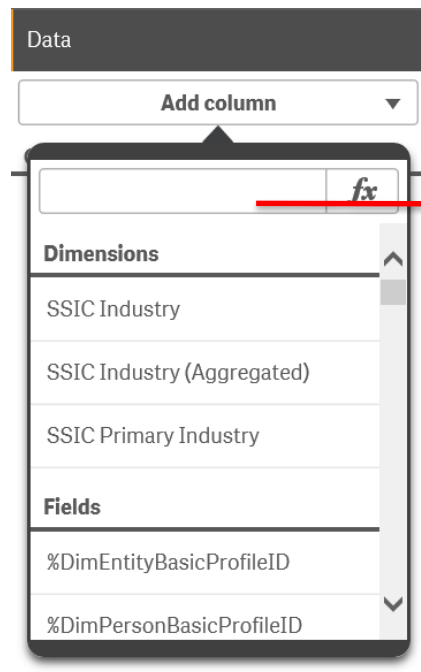
Add-ons

Appearance



Select
dimension

1. Dimension: normal data field (eg vehicle type, UEN, status)
2. Measure: a calculation on a data field (numerical value, eg average, sum, count of a field)



Input field
you want to
add

1. The list of fields will automatically filter on the fly according to what you have input
2. Once the field you wish to add appears, click on the field to add it to the table

Example

Add column ▼

fx

Fields

ENHistory	Entity Name
Entity Name	
Entity Name	Effective Date
Entity Name	Effective Date.Date
Entity Name	Effective Date.Mo...
Entity Name	Effective Date Qua

Field to add
in

1. By keying 'entity name' in the textbox provided, the list automatically filters to show only fields that contain the word
2. 'Entity Name' field spotted from the results
3. Click to add it into the table

Hands On

- Add the following fields into the table

Fields to add	Description
Entity Name	Name of company
Entity Profile UEN	Company's UEN
Entity Registration Date	Registration date of company
Entity Country of Incorporation	Country of incorporation of company
Primary Item Code	SSIC Code
Primary Item Description	SSIC Code Description
Company type	Foreign/Private etc

Sample result table

Entity Name	Entity Profile UEN ...	Country	Entity Regist... Date	Primary Item Code	Primary Item Description	Primary Section Description	Company Type Description
"LIVE"STYLE HOLDINGS (PTE.) LTD.	201204561R	SG	2012-02-24	47719	Retail sale of clothing, footwear and leather articles n.e.c.	WHOLESALE AND RETAIL TRADE	EXEMPT PRIVATE COMPANY LIMITED BY SHARES
"RING ALLIANCE" RINGBUCHTECHNIK GMBH	T03UF1407L	AT	2003-04-24	-	-	-	-
"RU-COM INVEST" JOINT-STOCK COMPANY	T13UF3242K	RU	2013-08-06	-	-	-	-
"SAFMARINE CONTAINER LINES" NV	S95UF0681L	BE	1995-04-29	-	-	-	-
"SHANTELL" THE BOUTIQUE PTE. LTD.	200406689W	SG	2004-05-31	47719	Retail sale of clothing, footwear and leather articles n.e.c.	WHOLESALE AND RETAIL TRADE	EXEMPT PRIVATE COMPANY LIMITED BY SHARES
"SOLARIS PROMO PRODUCTION", LIMITED LIABILITY COMPANY	T14UF0342L	RU	2014-01-22	-	-	-	-
"SRS INVESTICIJAS" LTD	T13UF2330B	LV	2013-06-07	-	-	-	-
"T" INVEST ONE PTE LTD	199604590W	SG	1996-06-24	64201	Bank/Financial holding companies (including insurance holding company)	FINANCIAL AND INSURANCE ACTIVITIES	EXEMPT PRIVATE COMPANY LIMITED BY SHARES
"TATARSTAN-ASIA" TRADING HOUSE PTE. LTD.	200922944E	SG	2009-12-08	46900	Wholesale trade of a variety of goods without a dominant product	WHOLESALE AND RETAIL TRADE	EXEMPT PRIVATE COMPANY LIMITED BY SHARES
"THE DOORS" ENTERTAINMENT PTE LTD	199205603M	SG	1992-10-16	56111	Restaurants	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	PRIVATE COMPANY LIMITED BY SHARES
"TUCKSHOP" PRIVATE LIMITED	201214550K	SG	2012-06-12	56122	Food courts, coffee shops, and eating houses (with mainly food and beverage income)	ACCOMMODATION AND FOOD SERVICE ACTIVITIES	EXEMPT PRIVATE COMPANY LIMITED BY SHARES
"TWO-WOMEN" PTE LTD	199408729N	SG	1994-11-29	77299	Renting and leasing of other personal and household goods n.e.c. (e.g. books, music instruments)	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	EXEMPT PRIVATE COMPANY LIMITED BY SHARES

Data

Add column

Columns

Company Name

UEN

Industry

Business Description

SSIC Code

Registration Date

Name Change Date

Sorting

Add-ons

Appearance

Add new column

Edit existing column

Data

Add column

Columns

Company Name

Field

=IF(ISNULL([Entity Deregistr; fx

Label

Company Name

☐ Show null values

Limitation

No limitation

Background color expression

fx

Text color expression

fx

Text alignment

Auto

Representation

Text

Delete

Edit field expression

Header name

Allowance for null values

Setting field limitation

Colouring options

Aesthetic options

Removing Item from table

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Exporting Base Sheet: PDF

1. We can export a base sheet as a pdf using one of the top bar functions as shown on below

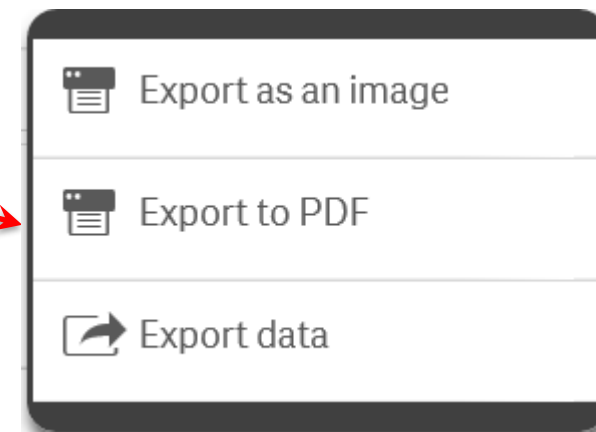
The screenshot shows the EDH_Dashboard interface. The top bar contains a menu icon, the title 'EDH_Dashboard', and several action buttons: 'Publish sheet', 'Export sheet to PDF', 'Duplicate sheet', 'Delete sheet', 'Help', and 'About'. The 'Export sheet to PDF' button is highlighted with a red rectangle. Below the top bar, there is a table with columns: 'Entity Profile UEN', 'Position Held Description', 'Person Name', and 'Entity Appointment Person ID Number'. The table contains several rows of data, including entries for 'K SYED MOHAMED COMPANY' and 'SIM PEOW SEAH'.

Entity Profile UEN	Position Held Description	Person Name	Entity Appointment Person ID Number
00001500L	MANAGER	SIM PEOW SEAH	S0161600E
00001500E	OWNER	SIM PEOW SEAH	S0161600E
K SYED MOHAMED COMPANY	OWNER	ABDUL LATIFF S/O KADERBACHA SYE D MOHAMED	S0019435B
K SYED MOHAMED COMPANY	OWNER	SULTAN AHAMED S/O KADERBATCHA SYED MOHAMED	S0134655E
K SYED MOHAMED COMPANY	OWNER	MOHAMED SALIH S/O KADERBATCHA SYED MOHAMED	S0158166Z
K SYED MOHAMED COMPANY	OWNER	MOHAMED ISMAIL S/O SYED MOHAMED	S0595263H
K SYED MOHAMED COMPANY	MANAGER	O. ABDUL WAHAB S/O OSSAN MASTA N SAHIB	S1111722H
K SYED MOHAMED COMPANY	OWNER	O. ABDUL WAHAB S/O OSSAN MASTA N SAHIB	S1111722H

Exporting visualization

1. We can export a visualization to an image, PDF or csv
2. Right-click on any visualization to bring up the options, then select '...', to bring up the export menu

Entity Name	Entity Profile UEN	Position Held Description	Person Name	Entity Appointment Person ID Number
KIM HUIN SI CLINIC	00001300E	MANAGER	SIM PEOW SEAH	S0161600E
KIM HUIN SI CLINIC	00001300E	OWNER	SIM PEOW SEAH	S0161600E
K SYED MOHAMED COMPANY	00001500L	OWNER	ABDUL LATIFF S/O KADERBACHA SYED MOHAMED	S0019435B
K SYED MOHAMED COMPANY	00001500L	OWNER	SULTAN AHMAD S/O KADERBACHA SYED MOHAMED	S0134655E
K SYED MOHAMED COMPANY	00001500L	OWNER	MOHAMED SALIH S/O KADERBACHA SYED MOHAMED	S0158166Z
K SYED MOHAMED COMPANY	00001500L	OWNER	MOHAMED ISMAIL S/O SYED MOHAMED	S0595263H
K SYED MOHAMED COMPANY	00001500L	MANAGER	O. ABDUL WAHAB S/O OSSAN MASTAN SAHIB	S1111722H
K SYED MOHAMED COMPANY	00001500L	OWNER	O. ABDUL WAHAB S/O OSSAN MASTAN SAHIB	S1111722H
K SYED MOHAMED COMPANY	00001500L	OWNER	MOHD ARIFF S/O ABDUL WAHAB	S1152182G
THE ROYAL TRADERS	00002100L	OWNER	MOHAMED SALLEH BIN ABU TALIB	S0027146B



Q&A

Email: GOVTECH-EDH@tech.gov.sg



Visualizations – Other Visualizations



Visualizations - Filter Pane



My new sheet

Company Name	Entity Profile UEN	Registration Date	Local/Fore...	SSIC Code	SSIC Description
Masjid Omar Kampong Melaka	R20MQ0058H	1820-01-01	Foreign	94912	Mosques
Masjid Sultan	R24MQ0064E	1824-01-01	Foreign	94912	Mosques
Masjid Jamae (Chulia)	R26MQ0044E	1826-01-01	Foreign	94912	Mosques
Masjid Al-Abrar	R27MQ0007L	1827-01-01	Foreign	94912	Mosques
Masjid Burhani	R29MQ0034D	1829-01-01	Foreign	94912	Mosques
Masjid Bencoolen	R45MQ0028B	1845-01-01	Foreign	94912	Mosques
Masjid Hajjah Fatimah	R46MQ0036J	1846-01-01	Foreign	94912	Mosques
RELIANCE MARINE INSURANCE CO L TD	R81FC0068H	1881-02-08	Foreign	96099	Other personal service activities n.e.c.
RELIANCE MARINE INSURANCE CO LTD	R81FC0068H	1881-02-08	Foreign	96099	Other personal service activities n.e.c.
Masjid Al-Taqua	R83MQ0021K	1883-01-01	Foreign	94912	Mosques
KEPPEL SINGMARINE PTE. LTD.	188700005K	1887-07-13	Foreign	30110	Building and repairing of ships, tankers and other ocean-going vessels
KEPPEL SINGMARINE PTE. LTD.	188700005K	1887-07-13	Local	30110	Building and repairing of ships, tankers and other ocean-going vessels

Data

Add dimension

Dimensions

No data

Sorting

Appearance

Demo

1. Refer to slide 7-9 to add a dimension
2. Add 'Entity Name' and 'Entity Profile UEN' as dimensions

My new sheet

Entity Name				Entity Profile UEN			
Company Name	Entity Profile UEN	Registration Date	Local/Fore...	SSIC Code	SSIC Description		
Masjid Omar Kampong Melaka	R20MQ0058H	1820-01-01	Foreign	94912	Mosques		
Masjid Sultan	R24MQ0064E	1824-01-01	Foreign	94912	Mosques		
Masjid Jamae (Chulia)	R26MQ0044E	1826-01-01	Foreign	94912	Mosques		
Masjid Al-Abrar	R27MQ0007L	1827-01-01	Foreign	94912	Mosques		
Masjid Burhani	R29MQ0034D	1829-01-01	Foreign	94912	Mosques		
Masjid Bencoolen	R45MQ0028B	1845-01-01	Foreign	94912	Mosques		
Masjid Hajjah Fatimah	R46MQ0036J	1846-01-01	Foreign	94912	Mosques		
RELIANCE MARINE INSURANCE CO L TD	R81FC0068H	1881-02-08	Foreign	96099	Other personal service activities n.e.c.		

Data

Add dimension

Dimensions

Entity Name

Entity Profile UEN

Field

Entity Profile UEN

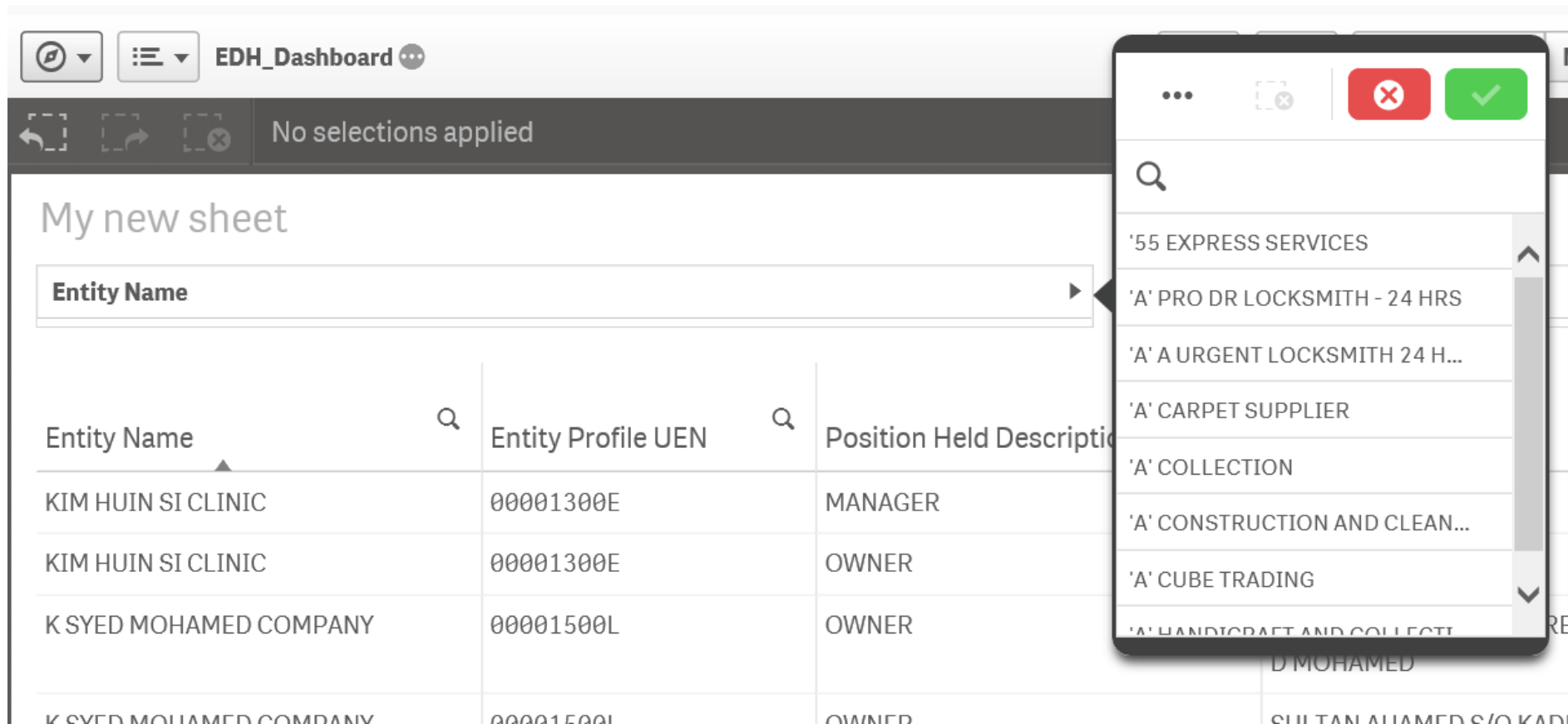
fx

Title

Entity Profile UEN

fx

Delete



The screenshot shows the EDH_Dashboard interface. At the top, there's a header with 'EDH_Dashboard' and a menu icon. Below the header, a dark bar indicates 'No selections applied'. The main area is titled 'My new sheet' and contains a table with three columns: 'Entity Name', 'Entity Profile UEN', and 'Position Held Description'. The table lists three entities: 'KIM HUIN SI CLINIC' (UEN: 00001300E, Position: MANAGER), 'KIM HUIN SI CLINIC' (UEN: 00001300E, Position: OWNER), and 'K SYED MOHAMED COMPANY' (UEN: 00001500L, Position: OWNER). A filter pane is open on the right, showing a search bar and a list of entity names starting with 'A'.

Entity Name	Entity Profile UEN	Position Held Description
KIM HUIN SI CLINIC	00001300E	MANAGER
KIM HUIN SI CLINIC	00001300E	OWNER
K SYED MOHAMED COMPANY	00001500L	OWNER

Filter Pane (Entity Name):

- '55 EXPRESS SERVICES
- 'A' PRO DR LOCKSMITH - 24 HRS
- 'A' A URGENT LOCKSMITH 24 H...
- 'A' CARPET SUPPLIER
- 'A' COLLECTION
- 'A' CONSTRUCTION AND CLEAN...
- 'A' CUBE TRADING
- 'A' HANDICRAFT AND COLLECTI...

1. Filter Panes allow users to filter the table accordingly
2. By inputting a entity name into the entity name filter pane, user can see data regarding that entity

Designing and appearance



Appearance

1. We can change the titles and labels of how the base sheet looks
2. To change the title of the base sheet, click anywhere on the base sheet in the edit page to go to 'Sheet Properties'
3. To change labels of your data of a visualization, click on the visualization and go to data to change the label
4. To change the header of a visualization, click on the visualization and go to appearance to change the title

The screenshot displays three panels from the GovTech interface:

- Sheet properties:** Contains fields for 'Title' (My new sheet), 'Description', and a 'Thumbnail' image placeholder.
- Data:** Contains a 'Columns' list with 'Entity Name', 'Entity Profile UEN', and 'Position Held Description'. Below this, the 'Field' is set to 'Position Held Description'. The 'Label' field, which currently contains 'Position Held Description', is highlighted with a red rectangle. There is also a 'Show null values' checkbox and a 'Limitation' dropdown set to 'No limitation'.
- Appearance:** Contains a 'General' section with a 'Show titles' toggle (On), and fields for 'Title', 'Subtitle', and 'Footnote', each with a function icon (fx). There is also a 'Presentation' section with a 'Totals' toggle (Auto).

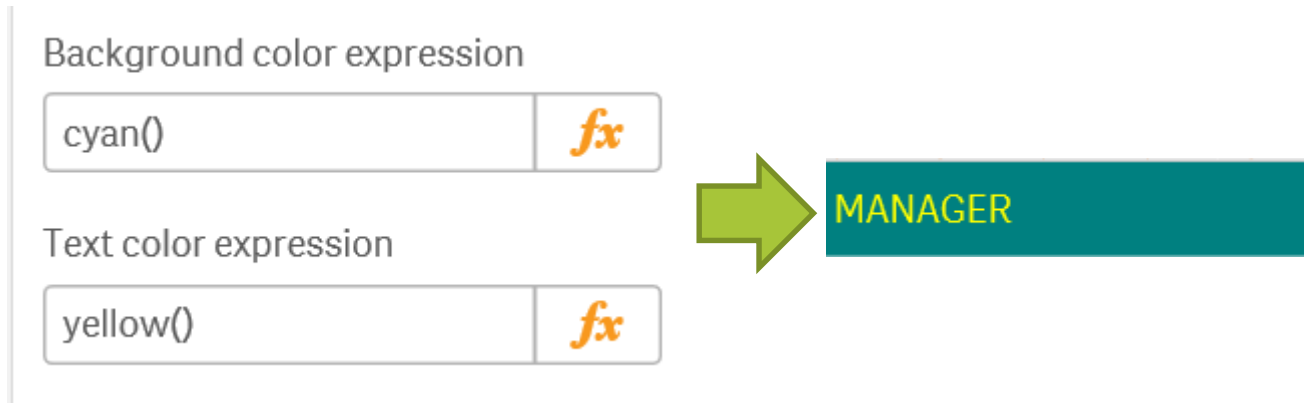
Sorting

1. We can change how the data is sorted for each visualization
2. Click on any visualization, under the sorting tab, you will be able to see a list of data fields that you have added for your visualization
3. Drag and drop to change the order of sorting
4. For each field, you can sort through 3 methods:
 - a) Alphabetically (ascending/descending)
 - b) Numerically (ascending/descending)
 - c) Expressions (see slide 41 to 45)

Sorting		
1	▶ Entity Name	≡
2	▶ Entity Profile UEN	≡
3	▶ Person Name	≡
4	▶ Entity Appointment Perso...	≡
5	▶ Position Held Description	≡

Colour

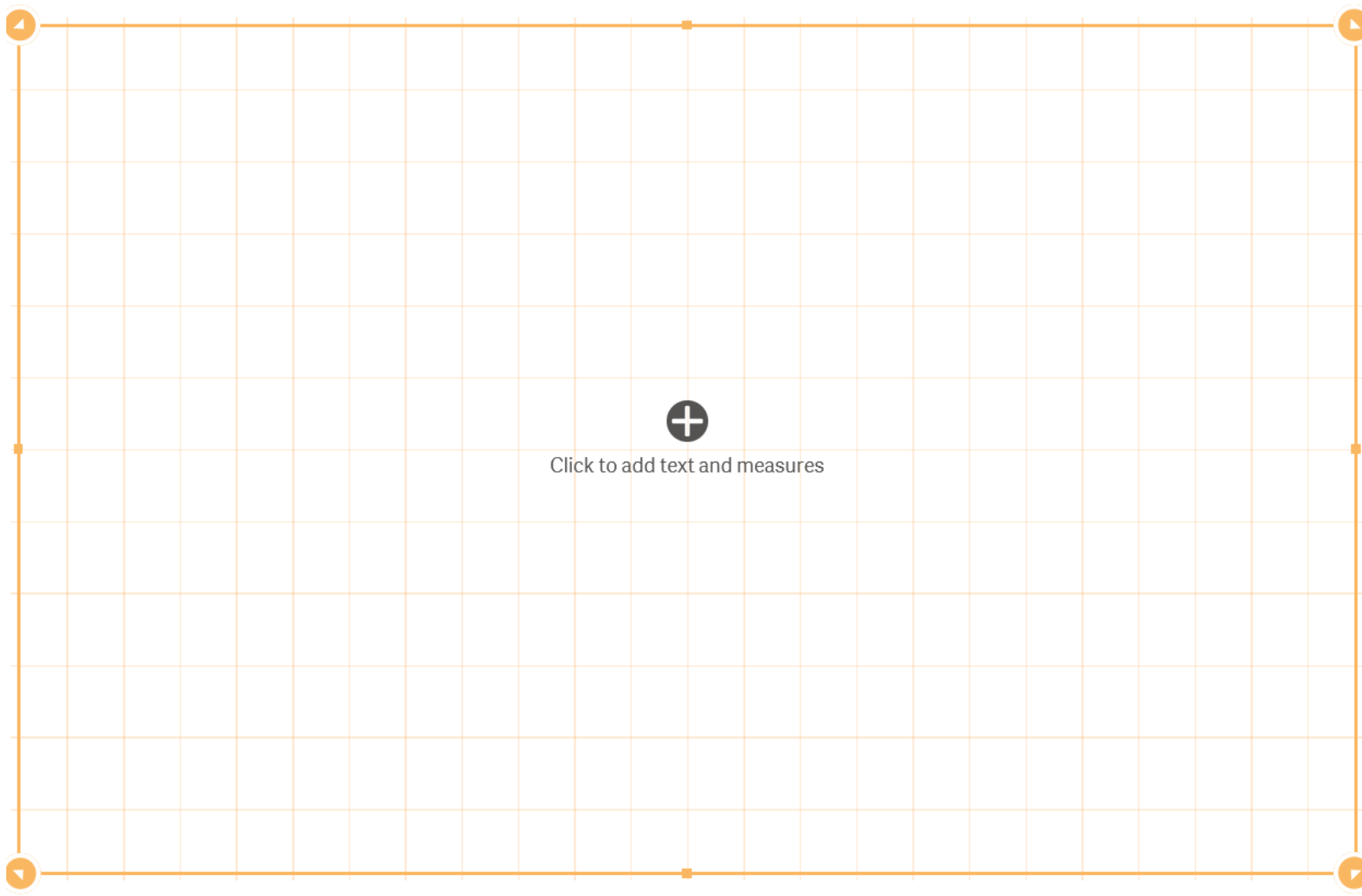
1. We can change how the colour of data and visualization
2. Under the data tab of some visualizations, we are able to change colours using expressions (see slide 41 to 45)
3. For some visualizations, the colours can also be change using expressions or colours options



Visualizations – Text & Image



My new sheet (1)



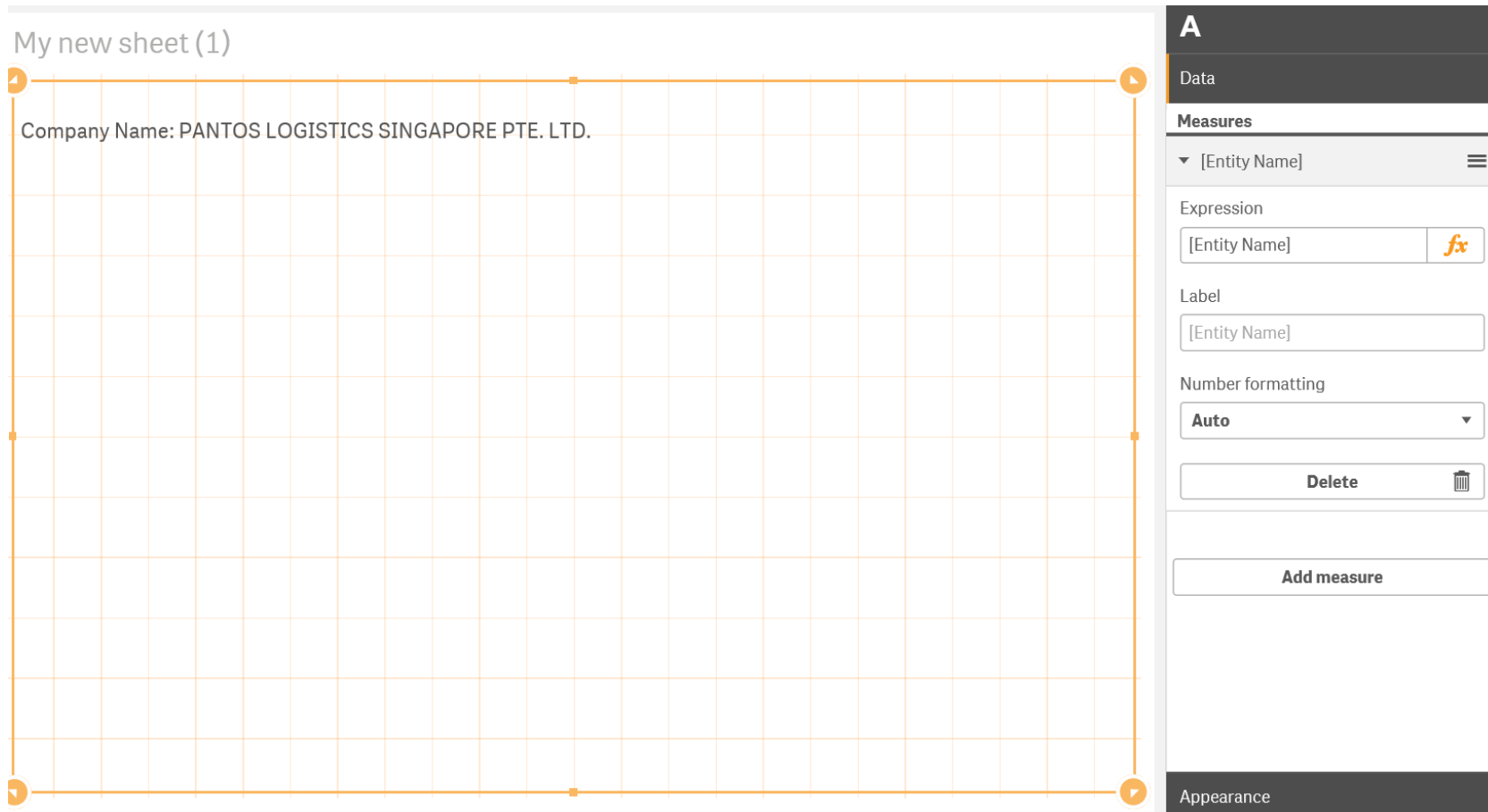
A

Data

Measures

Add measure

Appearance



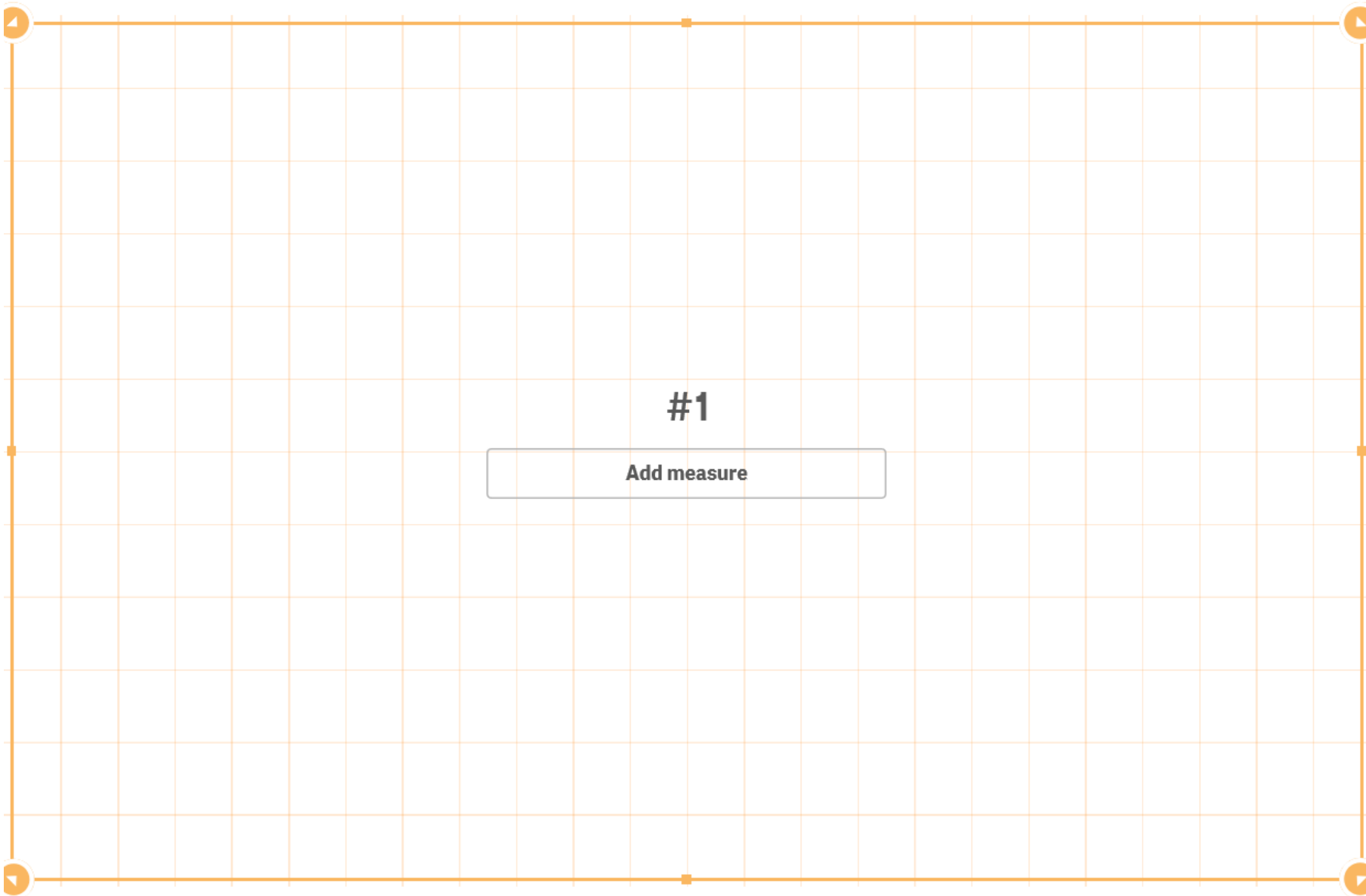
The screenshot displays a Power BI report interface. On the left, a text box titled "My new sheet (1)" contains the text "Company Name: PANTOS LOGISTICS SINGAPORE PTE. LTD." The text box is surrounded by a grid of orange lines and handles, indicating it is a visual element that can be resized or moved. On the right, the "Measures" pane is visible, showing a dropdown menu for "[Entity Name]" and a text input field for the expression. The "Label" field also contains "[Entity Name]". The "Number formatting" dropdown is set to "Auto". Below these fields are buttons for "Delete" and "Add measure". The "Appearance" pane is partially visible at the bottom right.

1. Text & Image works like the textbox in Word and PowerPoint
2. It is useful to add in your own text/images
3. It can also be used to show a single text information which often works with filters to narrow down to one information (example: company name after filtering to its UEN)

Visualizations – KPI



My new sheet (1)



#1

Data

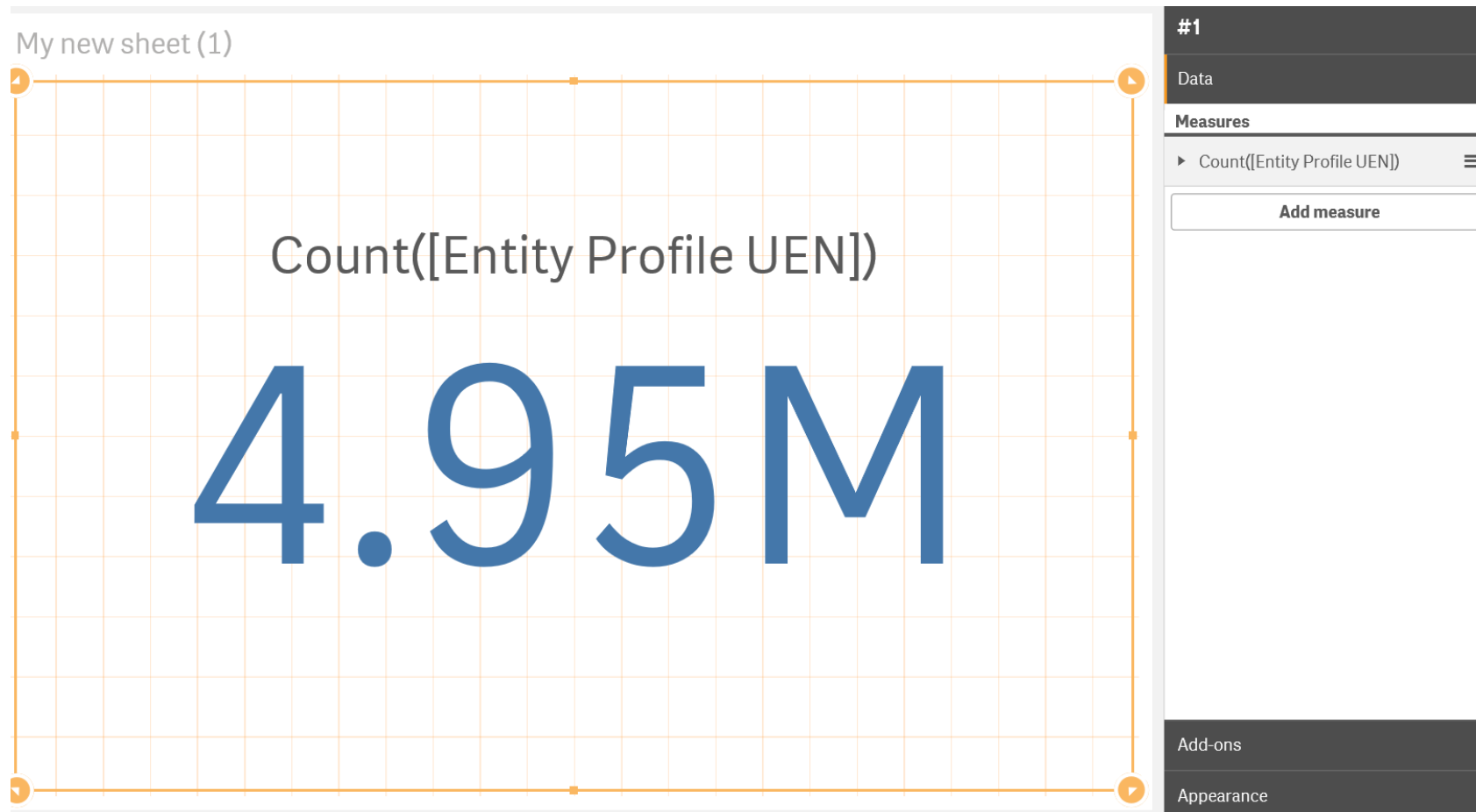
Measures

Add measure

Add-ons

Appearance






- KPI is useful to show a key number

1. For example: follow slide 26 to add 'Count[Entity Profile UEN]'

Visualizations – Pie Chart




My new sheet (1)



Add dimension

Add measure



Data

Dimensions

Add

Measures

Add

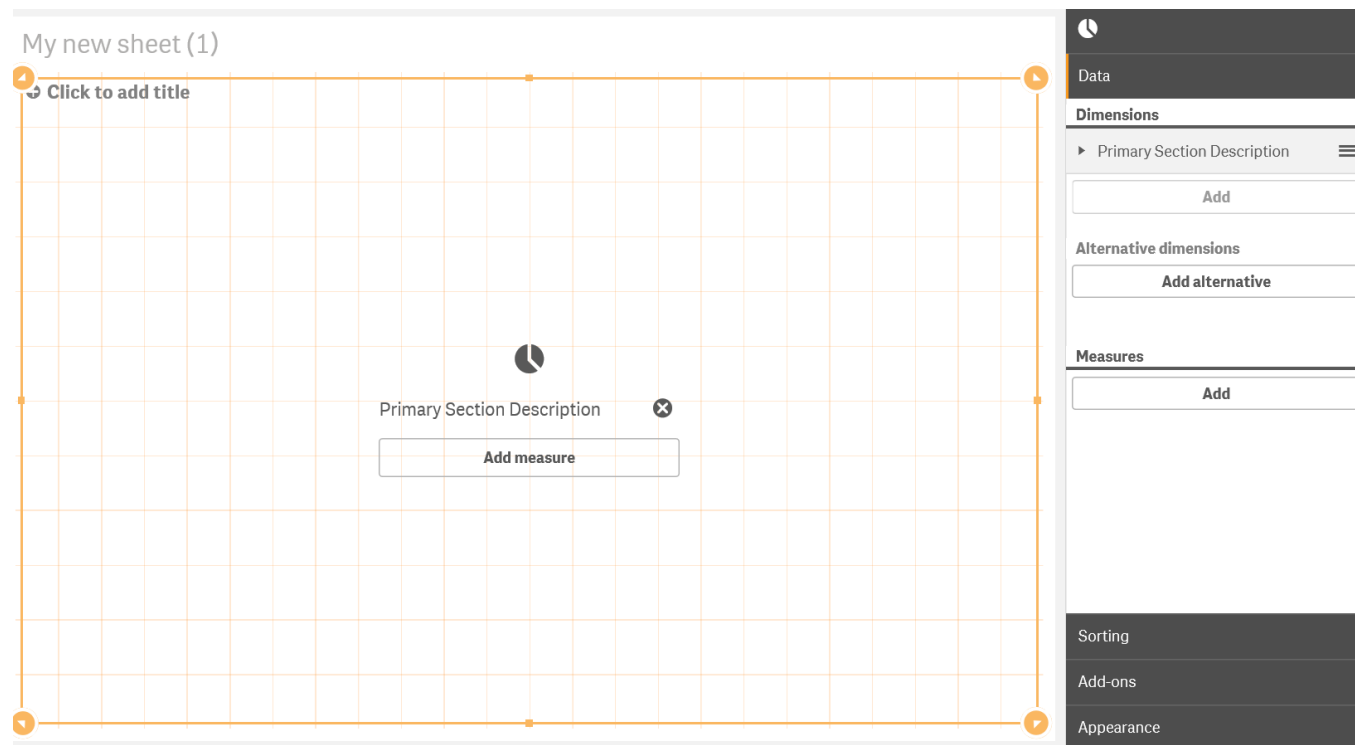
Sorting

Add-ons

Appearance

Example

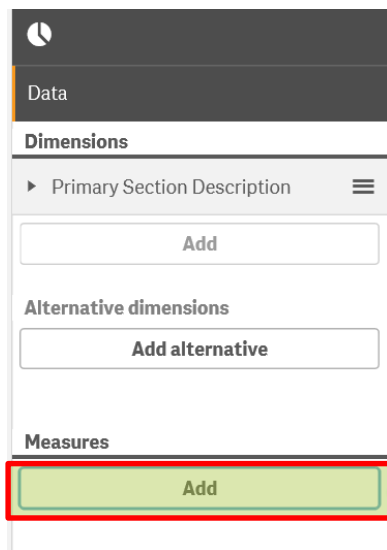
1. Refer to slide 7-9 to add a dimension
2. Add 'Primary Section Description' as a dimension



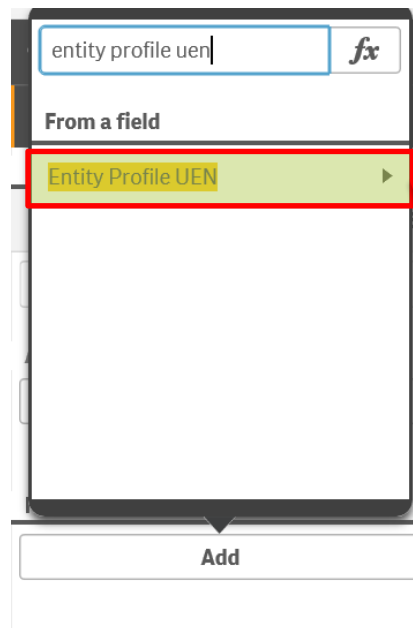
The screenshot shows a data visualization tool interface. The main area is a grid with a title 'My new sheet (1)' and a subtitle 'Click to add title'. In the center of the grid, there is a pie chart icon and a text label 'Primary Section Description' with a close button (X). Below the label is a button labeled 'Add measure'.

The right sidebar contains the following sections:

- Data**
- Dimensions**
 - Primary Section Description (with a menu icon)
 - Add
- Alternative dimensions**
 - Add alternative
- Measures**
 - Add
- Sorting**
- Add-ons**
- Appearance**



Select
dimension

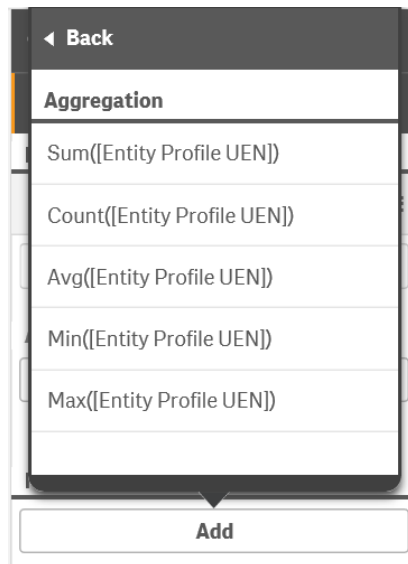


1. Example: Enter 'Entity Profile UEN'
2. The list will automatically filter to the keywords that is inputted

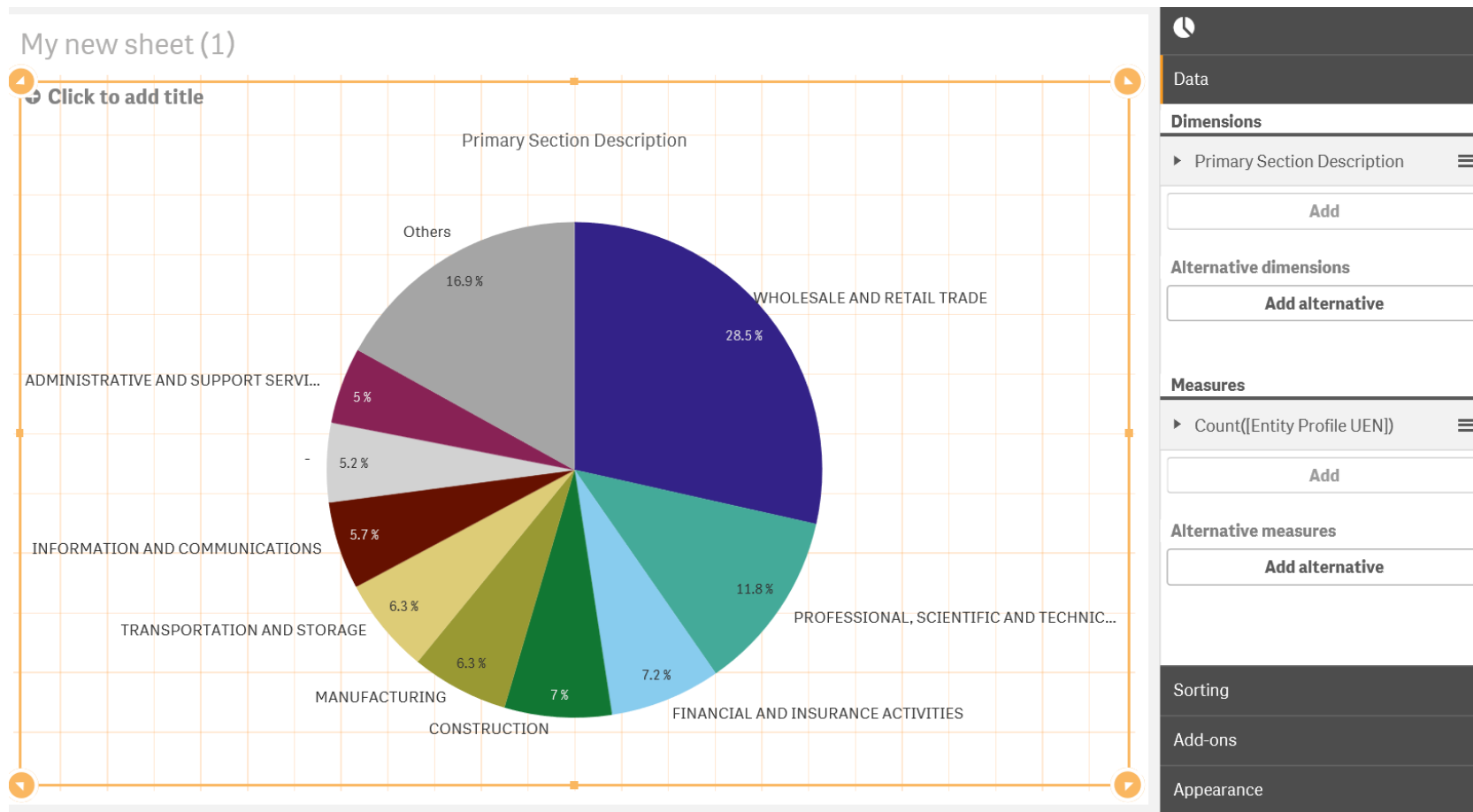
Click to go to aggregation



Adding a Measure



- a) Sum: sum of all the values in this field
- b) Count: the number of records in this field
- c) Avg: Average of all the values in this field
- d) Min: Minimum of all the values in this field
- e) Max: Maximum of all the values in this field



1. By adding Count([Entity Profile UEN]), the above visualization will be formed
2. Pie chart is useful to show proportions

Visualizations – Bar Chart



My new sheet (1)

Click to add title

Add dimension

Add measure

Data

Dimensions

Add

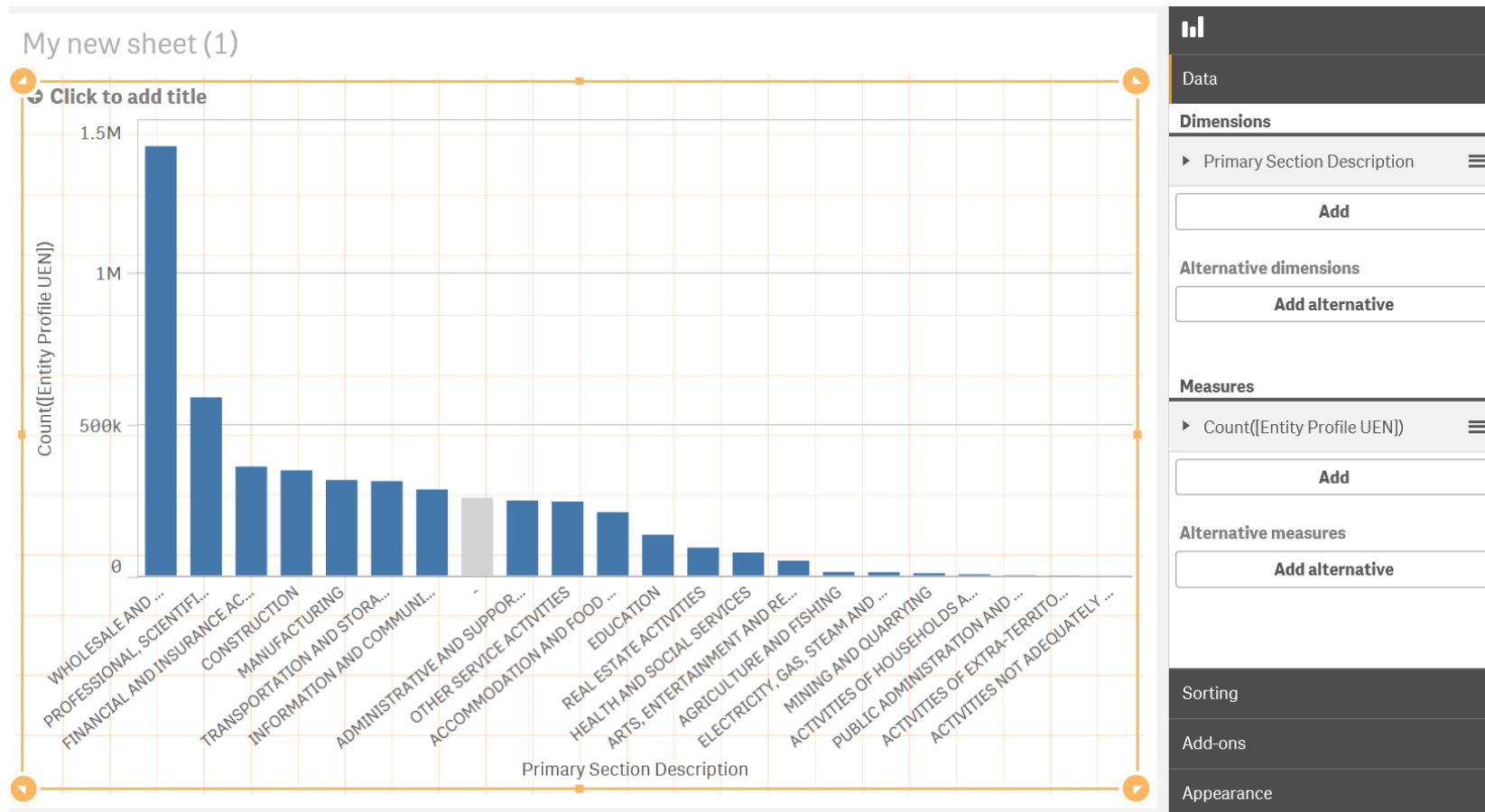
Measures

Add

Sorting

Add-ons

Appearance



1. Follow the same steps for pie chart (slide 24 to 26) to add 'Primary Section Description' as Dimension and 'count([Entity Profile UEN])' as Measure to get the above visualization
2. Bar charts are useful to show distribution

Visualization – Line Chart



My new sheet (1)

 Click to add title



Add dimension

Add measure



Data

Dimensions

Add

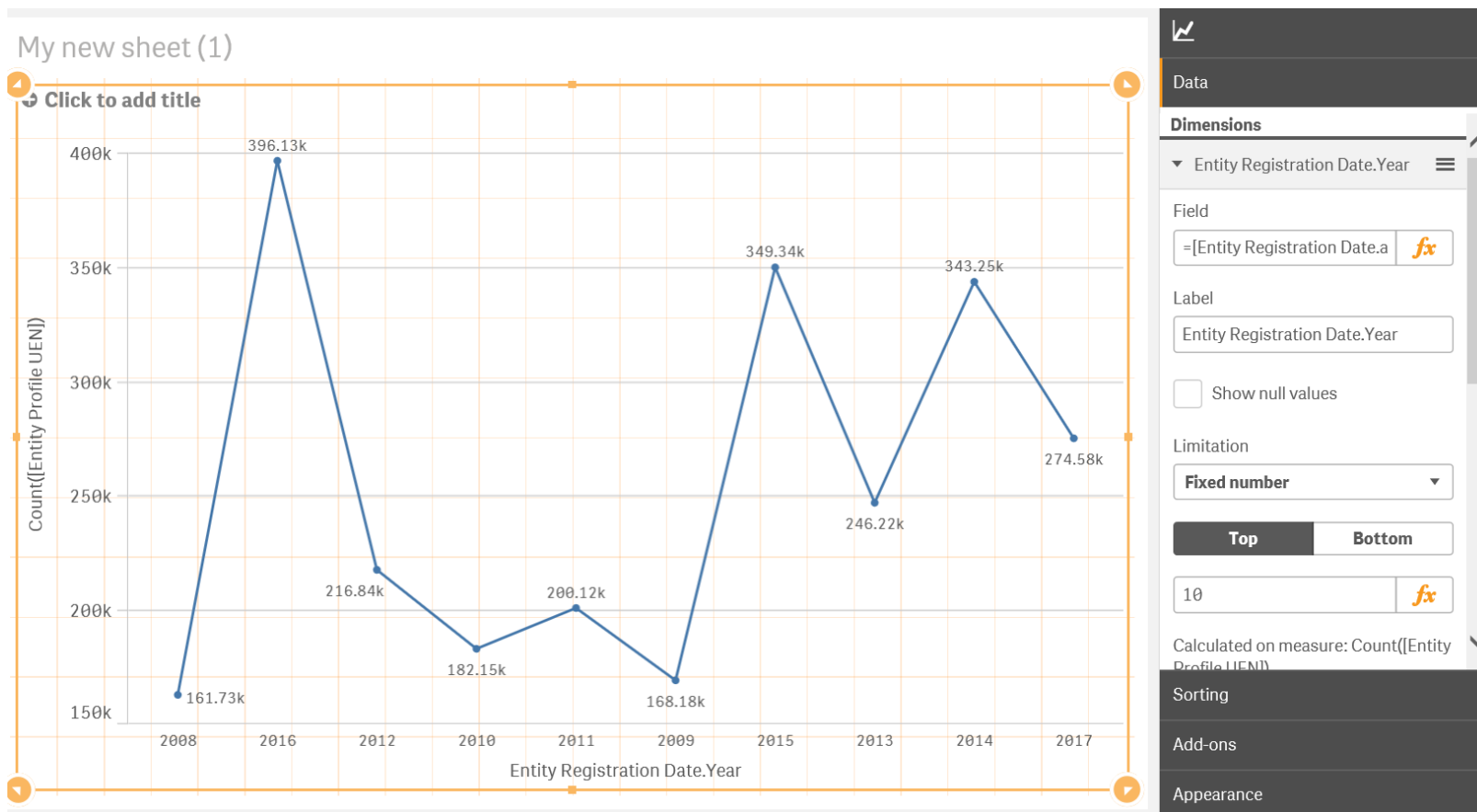
Measures

Add

Sorting

Add-ons

Appearance



1. Follow the slide 7 to 9 to add 'Entity Registration Date.autoCalendar.Year' as Dimension and slide 26 to add 'Count([Entity Profile UEN])' as Measure to get the above visualization
2. Line charts are useful to show trends

Expressions



Common expressions

1. Sum([field]): sum of all the values in this field
2. Count([field]): the number of records in this field
3. Count(distinct [field]): the number of distinct records in this field
4. Avg([field]): Average of all the values in this field
5. Min([field]): Minimum of all the values in this field (for numbers)
6. Max([field]): Maximum of all the values in this field (for numbers)
7. MinString([field]): Minimum string of all the values in this field (for words)
8. MaxString([field]): Maximum string of all the values in this field (for words)
9. [field] & [field]: Joining two fields together

Colour expressions

1. Use for colouring texts, numbers and visualizations
2. Preset colour functions: `colour([field])` e.g. `red([field])`
 - a) Black, blue, brown, cyan, darkgray, green, lightblue, lightcyan, lightgray, lightgreen, lightmagenta, lightred, magenta, white, yellow
3. `RGB(r,g,b)`: specifying the red, green and blue component of a colour, values are between 0 and 255

Other general expressions

1. `If(Condition, if output, else output)`: If condition passes, return 'if output'. Otherwise, return 'else output'
2. `true()`: return true
3. `false()`: return false
4. `null()`: return null
5. `isnull([Field])`: check if a field is empty, return true if it is. Otherwise, return false
6. `Lower([Field])`: change all the text in a field to lowercase
7. `Upper([Field])`: change all the text in a field to uppercase

Changing date formats

- Change the date format of date fields.

Eg 2019-01-11 to 11-01-2019

Date([Date Field], 'DD-MM-YYYY')

Eg Expiry
date,
registration
date etc

The format which you
want to change to. Follows
excel formatting. D-MMM-
YY = 11-Jan-19

- Show only the year/month/day

Year([Date Field]) -> 2019

Month([Date Field]) -> Jan

Getting Address Line from multiple fields

Address in EDH is split into numerous sections in EDH:

• Block Number	• Unit Number
• Street Name	• Building Name
• Level Number	• Postal Code

Examples:

9 Purvis Street Singapore 188588

1 Colombo Court #06-23A Singapore 179742

432 Balestier Road #01-442 Public Mansion Singapore 329813

To combine them, use the following codes:

Entity:

```
AGGR(MAXSTRING({$-<[Entity Effective Date To]={*}>} IF(ISNULL([Entity Postal Code]), null(),[Entity Block Number] & ' ' & [Entity Street Name] & IF(ISNULL([Entity Level Number])=0,' #' & [Entity Level Number] & '-' & [Entity Unit Number] & ' ','') & [Entity Building Name] & ' SINGAPORE ' & [Entity Postal Code])),[Entity Profile UEN])
```

Person:

```
AGGR(MAXSTRING({$-<[Person Effective Date To]={*}>} IF(ISNULL([Person Postal Code]), null(),[Person Block House Number] & ' ' & [Person Street Name] & IF(ISNULL([Person Level Number])=0,' #' & [Person Level Number] & '-' & [Person Unit Number] & ' ','') & [Person Building Name] & ' SINGAPORE ' & [Person Postal Code])),[Person Identification Number])
```

Getting the latest fields

EDH Public App tracks and keeps all historical records lodged by entities. Hence, one company may have multiple records, depending on the no. of updates it have. To get the latest, most updated fields, please use the following codes:

Entity:

AGGR(MAXSTRING({\$-<[Entity Effective Date To]={}>} [Field Name]), [Entity Profile UEN])*

Person:

AGGR(MAXSTRING({\$-<[Person Effective Date To]={}>} [Field Name]), [Person Identification Number])*

Replace [Field Name] with the field you require. Eg [Company Name], [Shareholder Name] etc

Useful links

1. color.adobe.com
 - a) A good website to find colours and get their HEX number or RGB values
2. help.qlik.com
 - a) To get help on qlik
3. 'help.qlik.com/en-US/sense/September2017/Subsystems/Hub/Content/Scripting/functions-in-scripts-charts-expressions.htm'
 - a) The list of available functions
4. community.qlik.com
 - a) Public questions on qlik
5. EDH Help Portal for navigation of portal
 - a) Help > Main Help > Need more details? > Get Step-by-Step Help Videos