# Advanced Comment System in Power BI

Microsoft Power BI has brought many new inventive and useful data visualizations as the product grew since it first released to the market in 2014. In the same time, it is becoming a major BI analytics product where more clients are interested. In Yuuruu, we are constantly seeking to deliver solutions in the newest technologies and to come up with the top product for our clients.

This time, one of our clients required a reporting solution which included an advanced commenting system for collaboration and planning purpose with an interactive tool using Microsoft products. With the comment functionality come with Power Bi service, the application is immature and limited. The comments can only be added to either a dashboard, an individual visual, or to a report page, but not at per transaction level.

In order to provide the right product for client, our team has implemented an end-to-end solution by combining MS SQL, Power BI, Power Platform, and Power Apps. In this case study, we will show how we can implement all the potential of Microsoft BI tools to boost data visualization and reporting to a whole new level.

To achieve the best result, we have designed the architecture and developed in the following steps.
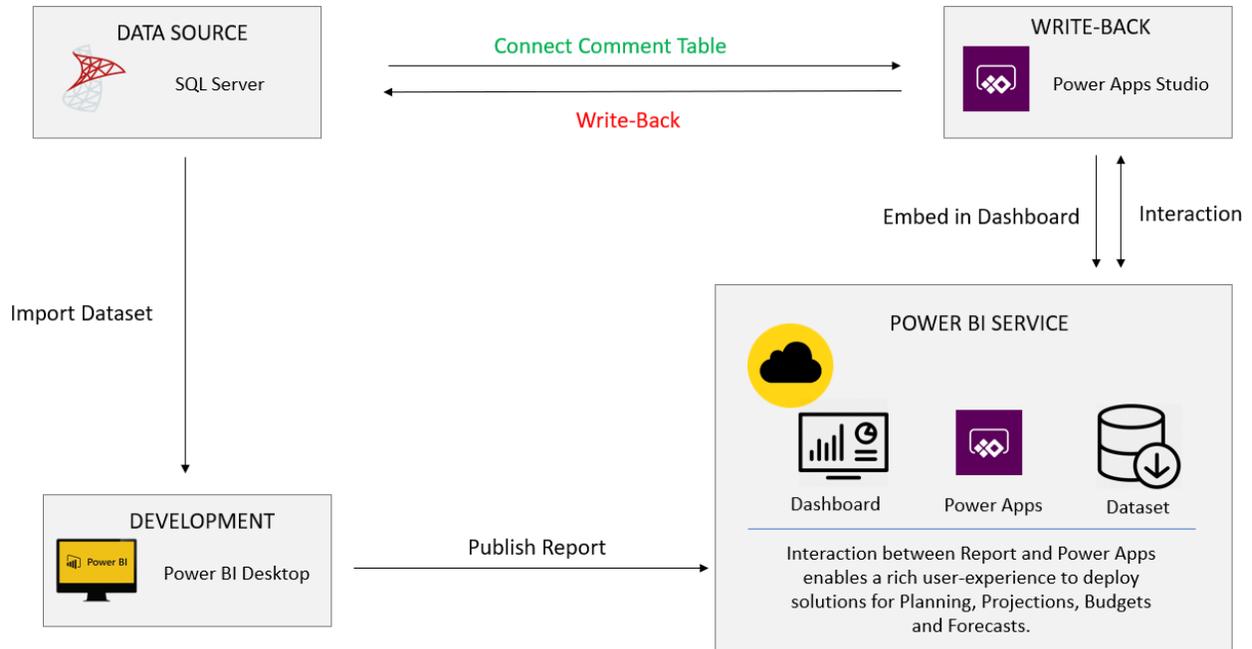
1. We use SQL server as data source and create a comment table in database where we can prepopulate data. The granularity for the comment is industry/Week. Below is the data model for Power BI report.
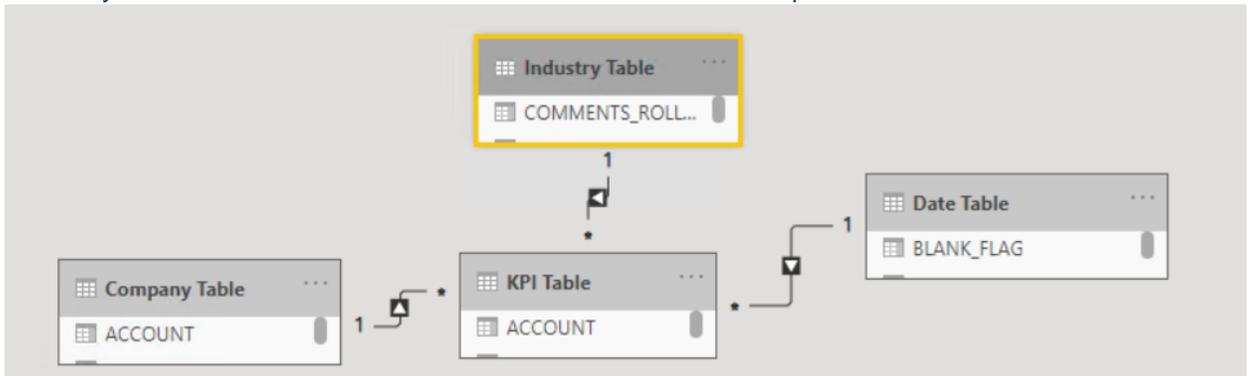
2. Next, we start to implement the Power Apps for writing back functions. Before we get started, we need to install the Microsoft Data Gateway to set the connection between Power Apps and SQL server, this allows live data for end users. In Power Apps studio, we will use SQL server connector to load the data from comment table.
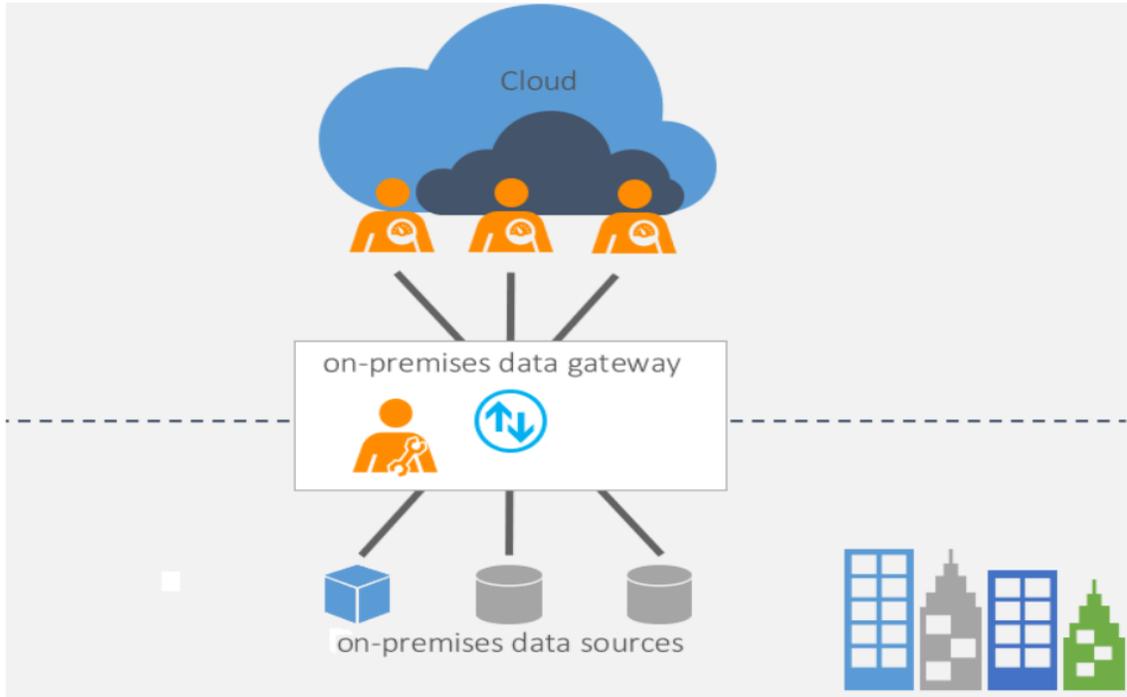
3. We have custom designed Power Apps user interface to perfectly fit in the Power BI report page. In advanced setting, we change the orientation and size to match the report from Power BI.

4. We use *Power Apps Visual for Power BI* where we can pass the variables/values from Power BI to Power Apps, then Power Apps uses the variable locate the transactions and perform DML in Power Apps directly update the data mart or data warehouse, and immediately see the impact of the changes. In this case, we have passed the value of industry and date stamp to the Power Apps Comment form. As a result, both Power Apps form and Power BI report will reflect the change as the slicer changes.

Industry: Automotive ▲   **Week:** 02/19/21 ▼

Industry dropdown (Automotive selected):
- ◉ Automotive
- ○ Automotive 1
- ○ Automotive 10
- ○ Automotive 11
- ○ Automotive 12
- ○ Automotive 13
- ○ Automotive 14
- ○ Automotive 15
- ○ Automotive 2
- ○ Automotive 3

Account	Metric 1	Metric 2			Metric 3					Metric 4		
	KPI 1	KPI 2	KPI 3	KPI 4	KPI 5	KPI 6	KPI 7			KPI X	KPI Y	KPI Z
Company J	$7,344	$0	($1,065)	$1,826	✓ 0.00	✓ 107%	✗ 13%			✓ 0	✓ $0	✓ 0
Company G	$1,583	$0	($812)	($94)	✓ 0.00	✓ 108%	✗ 20%			✓ 0	✗ $238	✗ 1
Company N	$1,527	($3,977)	($6,418)	$1,018	✓ 0.00	✓ 109%	✗ 53%			✓ 0	✓ $0	✓ 0
Company M	$1,389	$1,392	$2,270	$926	✓ 0.00	✓ 104%	✗ 18%			✗ 1	✓ $0	✓ 0
Company Y	$1,182	$442	$498	$14	✓ 0.00	✓ 109%	✓ 2%			✓ 0	✓ $0	✓ 0
Company B	$756	$0	$646	($70)	✓ 0.00	✓ 108%	✓ 0%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company K	$660	$0	($699)	($132)	✓ 0.00	✓ 107%	✓ 9%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company E	($628)	$0	($3,414)	($1,876)	✓ 0.00	✓ 104%	✗ 17%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company F	$526	$0	$0	($604)	✓ 0.00	✓ 105%	✓ 0%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company H	$256	($2,275)	($3,763)	($628)	✓ 0.00	✓ 108%	✗ 13%	✓ 0	✓ 0	✓ 0	✗ $296	✓ 0
Company L	$226	$0	($79)	($706)	✓ 0.00	✓ 108%	✓ 0%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company D	$53	$387	$4,462	($582)	✓ 0.00	✓ 109%	✓ 0%	✓ 0	✓ 0	✓ 0	✗ $275	✓ 0
Company C	$36	$0	($96)	($81)	✓ 0.00	✓ 104%	✓ 10%	✓ 0	✓ 0	✓ 0	✓ $0	✓ 0
Company I	$0	$0	$0	$0		9%						0
Total	$14,910	($4,032)	($8,470)	($987)								

FINANCIAL PERFORMANCE
- Comment 1 It is allowing to update, delete, insert, sort, and bold
- This textbox will auto height as the comment grow more.
- User can also bold the content as they want to hight the the data. User can also bold the content as they want to hight the the data.User can also bold the content as they want to hight the the data.

OPERATIONAL PERFORMANCE
- We have custom designed Power Apps user interface to perfectly fit in the Power BI report page. In advanced setting, we change the orientation and size to match the report from Power BI.
- We use Power Apps Visual for Power BI where we can pass the variables/values from Power BI to Power Apps
- then Power Apps uses the variable locate the transactions and perform DML in Power Apps directly update the data mart or data warehouse
- Coment 4

ACCOUNT MANAGEMENT
- This form uses live data where user and insert and reflect immediately. DML action will be performed in data mart
- If you wish to obtain deeper insights into your business using Power Platform
- don't hesitate to contact Yuuruu and we will be happy to advise you!
- The on-premises data gateway acts as a bridge to provide quick and secure data transfer between on-premises data (data that isn't in the cloud) and several Microsoft cloud services.
- Yuuruu team can deliver the product you need

5. We include the following functionalities in the Power Apps comment form: view, update, insert, delete, bold, and, sort comments in the table. We use Power Apps Gallery as the structure of the form to present data. In each template of the gallery, we add text box, labels, unique icons and give each individual objects an On-select action. The form as been divided into 3 sections, the comments inserted/updated with a flag to identify what category the comment falls into. This form will be embedded in Power BI.

FINANCIAL PERFORMANCE +
- This form allows end users to update, insert, delete, sort, and bold the text.This form allows end users to update, insert, delete, sort, and bold the text.
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OPERATIONAL PERFORMANCE +
- This form allows end users to update, insert, delete, sort, and bold the text.This form allows end users to update, insert, delete, sort, and bold the text.This form allows end users to update, insert, delete, sort, and bold the text.
- This form allows end users to update, inse ↑ ↓ B 🗑 delete, sort, and bold theIf you wish to obtain deeper insights into your business using Power Platform, don't hesitate to contact Yuuruu and we will be happy to advise you!
- This form allows end users to update, insert, delete, sort, and bold the text.
- This form allows end users to update, insert...

ACCOUNT MANAGEMENT +
- Comment 1
- This form allows end users to update, insert... [Type your comment for Account Management here...]
- This form allows end users to update, insert, delete, sor... e text [Cancel] [Save] ☐ Bold
- This form allows end users to update, insert, delete, sort, and bold the text.
- If you wish to obtain deeper insights into your...

Conclusions and future improvements

In this article, we have integrated Power Apps form in a Power BI report in order to provide custom comment/write back functionality into the data source directly from the Power BI/Power Apps interface.

If you wish to obtain deeper insights into your business using Power Platform, don't hesitate to contact YUURUU and we will be happy to advise you!

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