Diagram, schematic, timeline

Description automatically generated

Open SSMS and connect to the following database

ServerName - rf-sandbox.database.windows.net

DatabaseName - Incremental\_Refresh\_Demo

Open - Step 1 - Create\_Fact\_table.sql

Run - Step 1 - Create\_Fact\_table.sql

Purpose – recreate the empty Fact Table

Open - Step 2 - CreateAgentDim.sql

Run - Step 2 - CreateAgentDim.sql

Purpose – recreate the empty supporting dimension table and add three records.

Open - Step 3 - Generate\_Fact\_Table.sql

Run - Step 3 - Generate\_Fact\_Table.sql

Purpose – this will populate the Fact table with a random data for the last 6 months. Note that the last 6 days prior to the date when script was run will **NOT** be populated.

Create a data flow in the workspace ‘IncrementalRefresh [DF]’

Diagram

Description automatically generated

Next click on ‘Import model’

Graphical user interface, website

Description automatically generated

Import the ‘JSON’ file that has already been created.

Graphical user interface, text, application, email

Description automatically generated

Once imported and the data flow has been created then, ‘Edit credentials’

Graphical user interface, website

Description automatically generated

These should be set to the following

Graphical user interface, application

Description automatically generated

Click on the manual refresh button.

Graphical user interface, text, application, email

Description automatically generated

Purpose – this is to trigger an import of the data from the data source at least once. The data flow has been set up with incremental refresh already configured. Then confirm the refresh has completed successfully.

Text

Description automatically generated with medium confidence

Note this Data flow the table ‘FactCallsHandled’ has been configured with the following incremental refresh policy.

Graphical user interface, text, application

Description automatically generated

Open the Dataflow ‘Incremental\_Refresh\_Demo’, once open then grab the URL eg

https://app.powerbi.com/groups/07cad3d7-6247-4c67-8d8d-773c8f954aeb/dataflows/**a4aa557e-2c93-49f1-9fb0-1a0db2dab13c**

Get the last GUID in the example above it is – ‘a4aa557e-2c93-49f1-9fb0-1a0db2dab13c’

Open - Incremental\_Refresh\_Demo\_dataset.pbix. Then open Power BI Query Editor, change the value of the parameter ‘DataFlowID

Graphical user interface, application, Word

Description automatically generated

To the GUID taken from the URL above eg ‘a4aa557e-2c93-49f1-9fb0-1a0db2dab13c’

Graphical user interface, application

Description automatically generated

Click on ‘DimAgent’ and ‘FactCallsHandled’ to ensure that they have been refreshed successfully. Note that the RangeStart and RangeEnd are used to filter the data for ‘FactCallsHandled’ these may need to be adjusted to get a range in the SQL Server table.

Once confirmed the two tables ‘DimAgent’ and ‘FactCallsHandled’ are loading successfully, then click on the ‘Close & Apply’ button. This will load the data into the Power BI desktop file.

Review and confirm the Incremental refresh policy has been set up for the ‘FactCallsHandled’ table.

Graphical user interface, text, application

Description automatically generated

Publish ‘Incremental\_Refresh\_Demo\_dataset.pbix’ to the workspace ‘IncrementalRefresh [DS]’

Find the dataset in the workspace ‘IncrementalRefresh [DS]’ click once on the refresh now button to ensure the dataset has been refreshed at least once

Graphical user interface, application, Teams

Description automatically generated

Open the Power BI Desktop report ‘Incremental\_Refresh\_Demo.pbix’. This error message will appear

Graphical user interface, text, application

Description automatically generated

Click on the ‘Edit’ button in the screen that appears select ‘Incremental\_Refresh\_Demo\_dataset’ which will be in the workspace ‘IncrementalRefresh [DS]’

Graphical user interface, application

Description automatically generated

Publish this Power BI desktop report to the workspace ‘Incremental Refresh’. Open the report, and review the figures.

Open and run the ‘ConfirmTotals.sql’ the figures returned by the query should be identical to the report.

Graphical user interface, text, table

Description automatically generated

Table

Description automatically generated

Open and run - ‘Step 4 - Update\_Fact\_Table\_Day\_By\_Day.sql

This find the latest date, then insert a set of records for the records in ‘DimAgent’, setting the date value to be the latest date plus one day.

Go to – ‘IncrementalRefresh [DF]’ workspace and manually refresh ‘Incremental\_Refresh\_Demo’

Go to – ‘IncrementalRefresh [DS]’ workspace and manually refresh ‘Incremental\_Refresh\_Demo\_dataset’

Open and run ‘ConfirmTotals.sql’

Goto to - ‘Incremental Refresh’ workspace, open the report ‘Incremental\_Refresh\_Demo’ (refresh the page to ensure that **not seeing cached results**)

Compare the results from the Power BI report with the results from the query ‘ConfirmTotals.sql’. They should be identical.

When the incremental refresh is run, then any records in the region ‘Refresh rows from the past’ all these values will be truncated and overwritten.

Open and run - ‘Step 5 - Update\_Fact\_Table\_Latest\_Date\_Call\_Figures.sql’

This will update the values of [AnsweredCall], [MissedCall], and [FowardedCall], for the lastest date in the dataset.

Go to – ‘IncrementalRefresh [DF]’ workspace and manually refresh ‘Incremental\_Refresh\_Demo’

Go to – ‘IncrementalRefresh [DS]’ workspace and manually refresh ‘Incremental\_Refresh\_Demo\_dataset’

Open and run ‘ConfirmTotals.sql’

Goto to - ‘Incremental Refresh’ workspace, open the report ‘Incremental\_Refresh\_Demo’ (refresh the page to ensure that **not seeing cached results**)

Compare the results from the Power BI report with the results from the query ‘ConfirmTotals.sql’. They should be identical.

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Next step is to delete records for the latest date in the record set.

Open and run - ‘Step 6 - Update\_Fact\_Table\_Latest\_Date\_Call\_Figures.sql’

This will update the values of [AnsweredCall], [MissedCall], and [FowardedCall], for the lastest date in the dataset.

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**Detect Data Changes**

Open and run - ‘Step 7 - Update\_Fact\_Table\_Set\_AdjustedDate\_to\_CallDate.sql’

This will populates the column [AdjustedDate] with the value in [CallDate]

Set up the data flow with the following pattern for incremental refresh

Graphical user interface, text, application, email

Description automatically generated

Open - Incremental\_Refresh\_Demo\_DetectDataChanges.pbix. Then open Power BI Query Editor, change the value of the parameter ‘DataFlowID

Graphical user interface, application, Word

Description automatically generated

To the GUID taken from the URL above eg ‘a4aa557e-2c93-49f1-9fb0-1a0db2dab13c’

Graphical user interface, application

Description automatically generated

Click on ‘DimAgent’ and ‘FactCallsHandled’ to ensure that they have been refreshed successfully. Note that the RangeStart and RangeEnd are used to filter the data for ‘FactCallsHandled’ these may need to be adjusted to get a range in the SQL Server table.

Once confirmed the two tables ‘DimAgent’ and ‘FactCallsHandled’ are loading successfully, then click on the ‘Close & Apply’ button. This will load the data into the Power BI desktop file.

Review and confirm the Incremental refresh policy has been set up for the ‘FactCallsHandled’ table.

Graphical user interface, text, application, email

Description automatically generated

Publish ‘Incremental\_Refresh\_Demo\_DetectDataChanges.pbix’ to the workspace ‘IncrementalRefresh [DS]’

Find the dataset in the workspace ‘IncrementalRefresh [DS]’ click once on the refresh now button to ensure the dataset has been refreshed at least once