**Email Id – harshadkhedekar123@gmail.com**

**Power BI Assignment 5**

1. Explain DAX.

Ans.

DAX (Data Analysis Expressions) is a formula expression language and can be used in different BI and visualization tools. DAX is also known as function language, where the full code is kept inside a function. DAX programming formula contains two data types: Numeric and Other. Numeric includes - integers, currency and decimals, while Other includes: string and binary object.

DAX function can also include other functions, conditional statements, and value references.

## DAX Functions

In Power BI, you can use different function types to analyze data, and create new columns and measures. It includes functions from different categories such as −

* Aggregate
* Text
* Date
* Logical
* Counting
* Information

Power BI provides an easy way to see the list of all functions. When you start typing your function in the formula bar, you can see the list of all functions starting with that alphabet.

### Aggregate Functions

DAX has a number of aggregate functions.

* MIN
* MAX
* Average
* SUM
* SUMX

### Counting Functions

Other counting functions in DAX include −

* DISTINCTCOUNT
* COUNT
* COUNTA
* COUNTROWS
* COUNTBLANK

### Logical Functions

Following are the collection of Logical functions −

* AND
* OR
* NOT
* IF
* IFERROR

### TEXT Functions

* REPLACE
* SEARCH
* UPPER
* FIXED
* CONCATENATE

### DATE Functions

* DATE
* HOUR
* WEEKDAY
* NOW
* EOMONTH

### INFORMATION Functions

* ISBLANK
* ISNUMBER
* ISTEXT
* ISNONTEXT
* ISERROR

1. Explain datasets, reports, and dashboards and how they relate to each other?

Ans.

In the Power BI service, reports are built on datasets, report visuals are pinned to dashboards, and dashboard visuals link back to reports.

* A dataset is a collection of data that you import or connect to. Power BI lets you connect to and import all sorts of datasets and bring all of it together in one place. Datasets can also source data from dataflows.

Datasets are associated with workspaces and a single dataset can be part of many workspaces. When you open a workspace, the associated datasets are listed under the Datasets tab. Each listed dataset is a source of data available for one or more reports, and the dataset may contain data that comes from one or more sources. For example, an Excel workbook on OneDrive, or an on-premises SSAS tabular dataset, or a Salesforce dataset. There are many different data sources supported, and we're adding new ones all the time.

* A Power BI report is one or more pages of visualizations such as line charts, maps, and treemaps. Visualizations are also called visuals. All of the visualizations in a report come from a single dataset. You can create reports from scratch within Power BI, import them with dashboards that colleagues share with you, or Power BI can create them when you connect to datasets from Excel, Power BI Desktop, databases, and SaaS applications. For example, when you connect to an Excel workbook that contains Power View sheets, Power BI creates a report based on those sheets. And when you connect to an SaaS application, Power BI imports a pre-built report.

There are two modes to view and interact with reports: Reading view and Editing view. When you open a report, it opens in Reading view. If you have edit permissions, then you see Edit report in the upper-left corner, and you can view the report in Editing view. If a report is in a workspace, everyone with an admin, member, or contributor role can edit it. They have access to all the exploring, designing, building, and sharing capabilities of Editing view for that report. The people they share the report with can explore and interact with the report in Reading view.

* A dashboard is something you create in the Power BI service or something a colleague creates in the Power BI service and shares with you. It is a single canvas that contains zero or more tiles and widgets. Each tile pinned from a report or from Q&A displays a single visualization that was created from a dataset and pinned to the dashboard. Entire report pages can also be pinned to a dashboard as a single tile. There are many ways to add tiles to your dashboard; too many to be covered in this overview topic.

1. How reports can be created in power BI, explain two ways with Navigation of each.

Ans.

The report is automatically created from the Power View sheets.

1. Download the Procurement Analysis sample Excel file. We recommend saving it in your OneDrive for Business.
2. Open the Power BI service in your browser (app.powerbi.com).
3. From the nav pane, select My Workspace and then select Get Data.
4. Under Files, select Get.
5. Navigate to the location where you saved the Procurement Analysis sample Excel file. Select it and choose Connect.
6. For this exercise, select Import.
7. When the success message appears, select the x to dismiss it.
8. How to connect to data in Power BI? How to use the content pack to connect to google analytics? Mention the steps.

Ans.

In Power BI, it’s straightforward to connect to the Google Analytics content pack.

1. In the left navigation pane, click Get Data.
2. In the Services box, click Get
3. From the menu of online services, select Google Analytics, and then click Connect.
4. Enter the Google Analytics account, property, and view that you want to connect to. Then sign in with your Google Analytics credentials.
5. To permit Power BI to connect to Google Analytics, click Accept.
6. When the import process completes, you will see a new dashboard, report, and model in the Navigation Pane. Select the dashboard to view your imported data.

You can also import Google Analytics data directly into Power BI Desktop (formerly Power BI Designer).

1. Launch Power BI Desktop. On the ribbon, in the External Data group, click Get Data
2. From the drop-down menu, click More…
3. In the Get Data window, click Other. From the list of other data sources, click Google Analytics, and then click Connect.
4. Read the information about connecting to a third-party service, and then click Continue
5. Google Analytics asks Power BI Desktop for permission to connect to your data. Click Accept.
6. Power BI Desktop shows that you’re signed in to Google Analytics. To load your Google Analytics data, click Connect.
7. Power BI Desktop loads the Google Analytics data. Now you can start creating your amazing dynamic reports.

Power BI makes it possible for anyone to connect to huge amounts of structured and unstructured data from multiple sources. By importing data from Google Analytics into the mix, organizations can view their website’s performance in the context of many other variables.

Power BI has the tools for manipulating this data, representing it visually, and sharing it easily with your colleagues. The more sources of data you have, with the right tools to analyze and visualize them, the more likely that important insights will emerge.

1. How to import Local files in Power BI? Mention the Steps.

Ans.

Step 1

To import data, go to the ‘Home’ tab click on ‘Get data’ select the ‘Folder’ source then click ‘OK’.

Paste the path of the folder and click OK.

Here you can see the metadata information of all three files also you can see the four options ‘Combine’, ‘Load’, ‘transform Data’ and ‘Cancel’.

Combine- Here, you can see the two options ‘Combine & Transform’ and ‘Combine & Load’. In combine & transform, you can merge two or more tables and transfer through power query. In Combine & load, you can merge the table and load directly.

Load-This is used to load the folder directly

Transform - This option is used to transform the data.

Cancel-If you paste the wrong path of the folder or if you want to go back to the home page or previous page, you just click on ‘Cancel’.

Here in this article, I am going to use ‘Combine & Load’.

Step 2

Once you click on ‘Combine & Load’ you get the option sample file, choose the file you want to load here.

Your file has loaded now you can see the file on the left side of the tool.

Step 3

Our third step is to create a report. In the first report, I am showing the department-wise salary. Here I am selecting table visualization and three columns i.e. ‘DPT\_NAME’, ‘DPT\_ID’ and ‘SALARY’.

I have changed the background color and filed a color using format.

To change the page background color click on the canvas and go to format

In the second report I am going to show you the number of employees in a country. To do this I am using ‘Donut Chart’ visualization and two columns i.e. ‘OFC\_LOC’ and ‘EMP\_ID’.

Select the count of EMP\_ID’.

I am also using ‘Focus Mode’ here so that our report is showing big in size and clear.

1. In Power BI visualization, what are Reading View and Editing view?

Ans.

There are two modes for interacting with reports in the Power BI service: Editing view and Reading view. If you are a business user, then you are more likely to use Reading view to consume reports created by others. Editing view is used by report designers, who create the reports and share them with you. Reading view is your way to explore and interact with reports created by colleagues.

Even in Reading view, the content isn't static. You can dig in, looking for trends, insights, and other business intelligence. Slice and dice the content, and even ask it questions using your own words. Or, sit back and let your data discover interesting insights for you; send you alerts when data changes, and email reports to you on a schedule you set. All your data, any time, in the cloud or on-premises, from any device.