Assignment_PowerBI2 24/08/2021

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Que1. Explain Data modelling concept in power BI

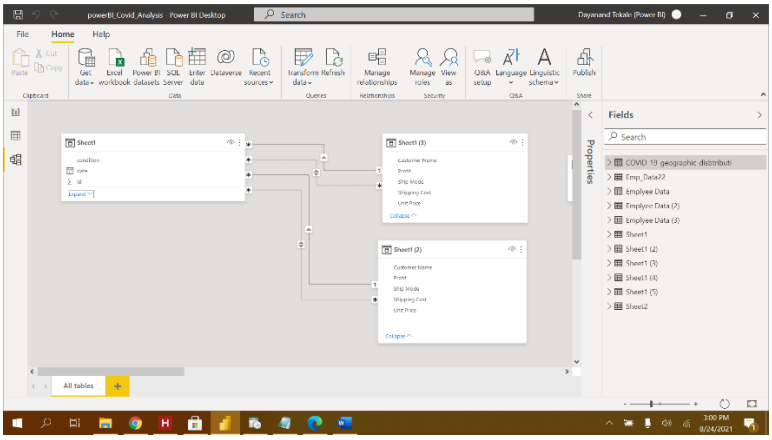
Answer:

-Data Modeling is one of the features used to connect multiple data sources in BI tool using a relationship.

-A relationship defines how data sources connected with each other and you can create interesting data visualizations on multiple data sources.

-With the modeling feature, We can build custom calculations on the existing tables and these columns can be directly presented into Power BI visualizations.

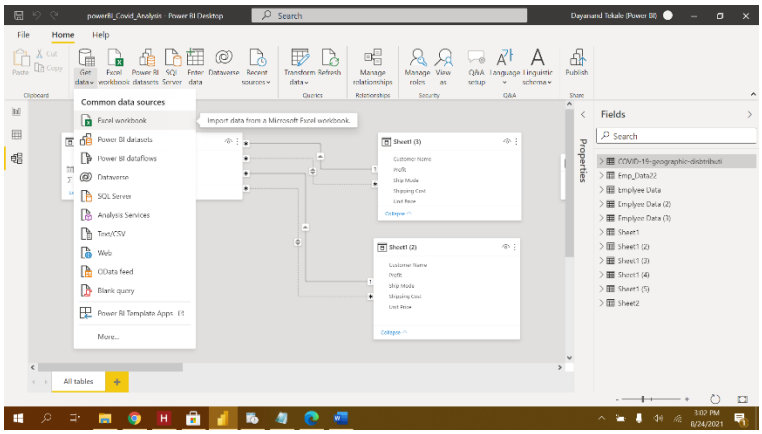
-This allows businesses to define new metrics and to perform custom calculations for those metrics.



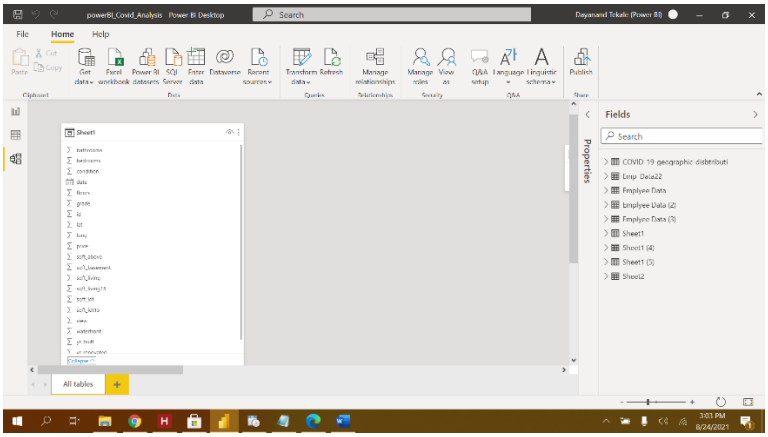
-In the above image, We can see a common data model, which shows a relationship between two tables. Both tables are joined using a column name “Id”.

-Similarly, in Power BI, We set the relationship between two objects. To set the relationship have drag a line between the common columns. We can also view the Relationship in a data model in Power BI.

-To create data model in Power BI,We need to add all data sources in Power BI new report option. To add a data source, go to the Get data option. Then, select the data source We want to connect and click the Connect button.



- Once we add a data source, it is presented on the right-side bar.

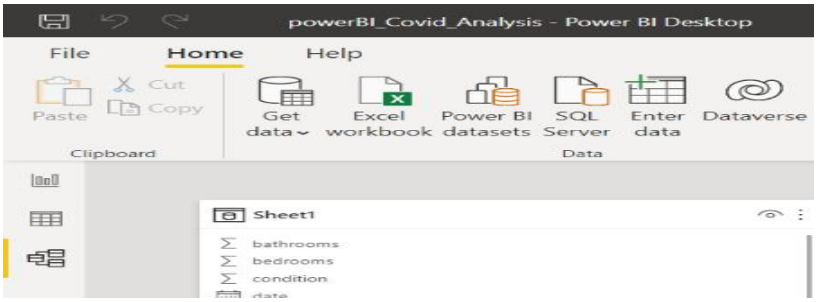


- In Power BI on the left side of the screen, you have the following three tabs −

-Report

-Data

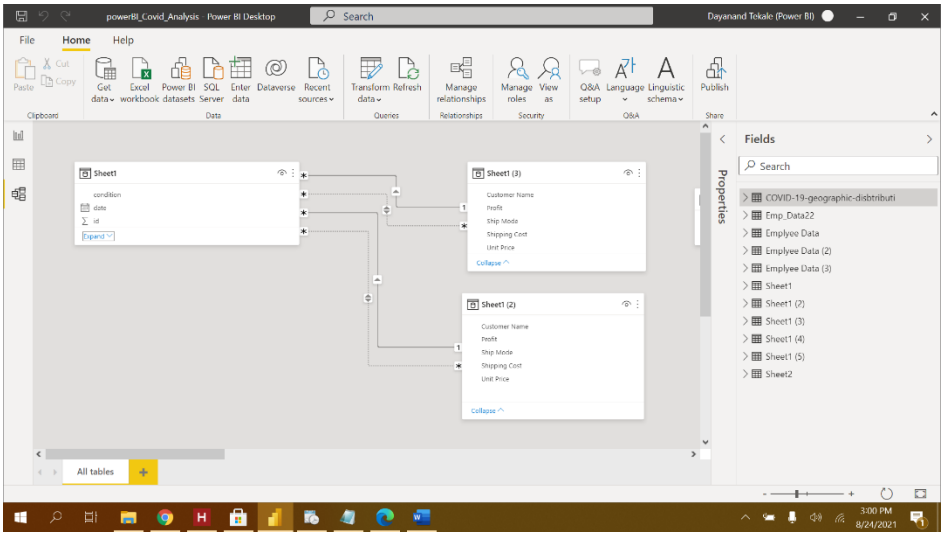
-Relationships



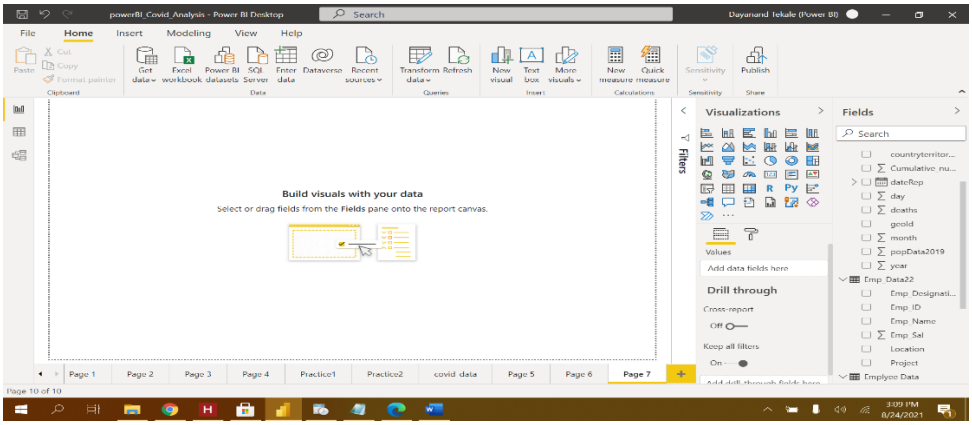
-Then we move to right side so many option

-Simply we can move and Drag and Drop the Rows and Columns with help to Cursr

-and we can Easily Relate one table to another table as shown in picture



Que2. Take an example of Any sample data and create dashboard and publish
Answer:
-Open The Power BI Desktop



-In HOME we can see the option Get Data

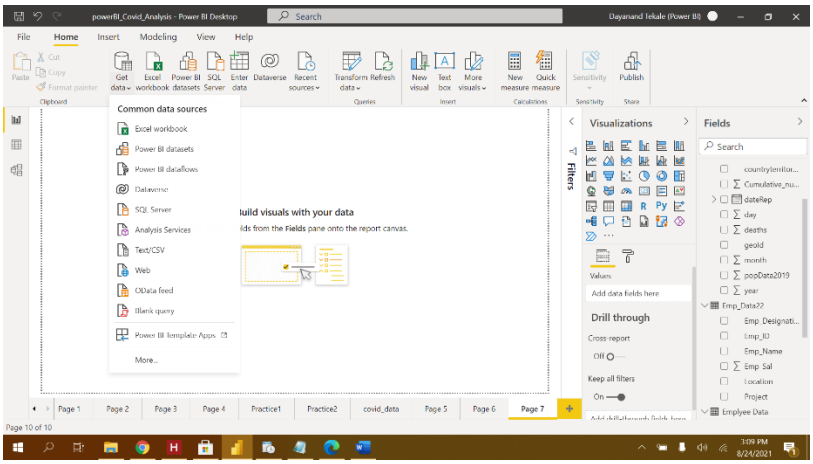
-Select

-We can there are so many options

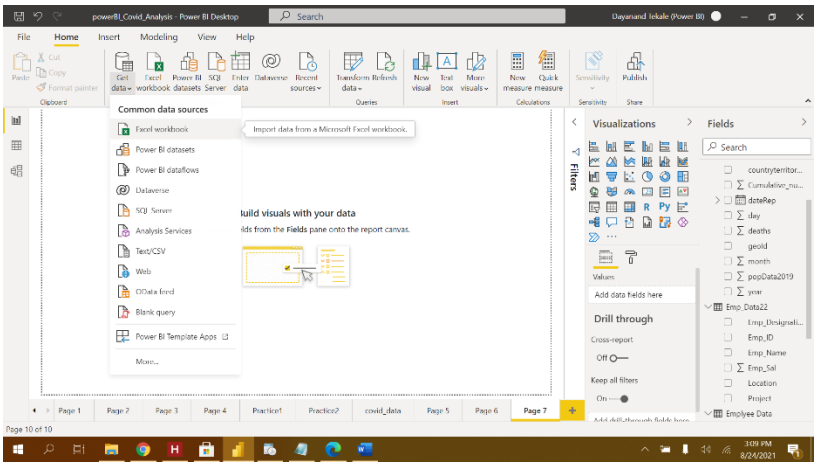
-As per our file or Documents select the file

-here I have Excel file

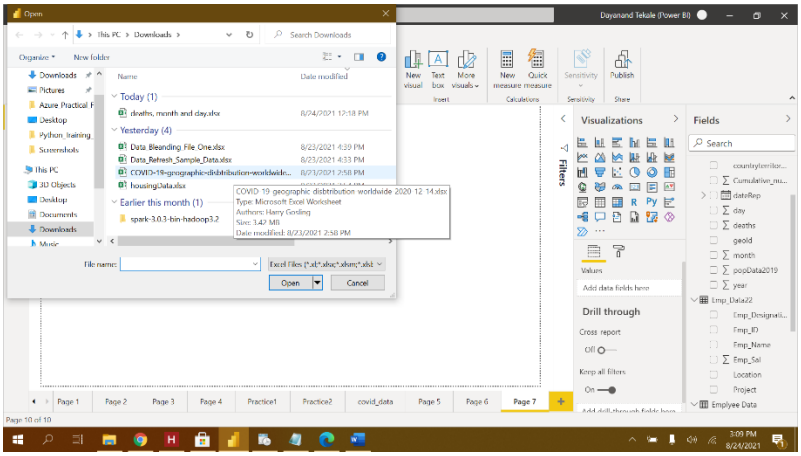
-Select Excel



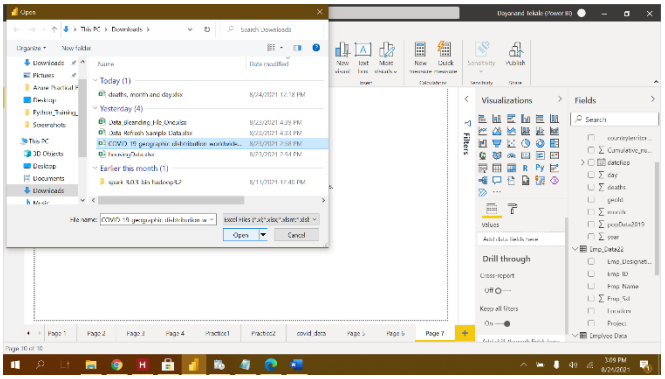
-Select Excel file for uploading the Data on Power BI Desktop



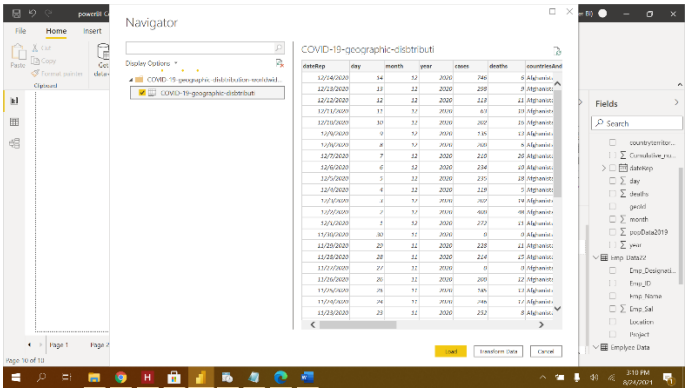
-Select the file as per our folder



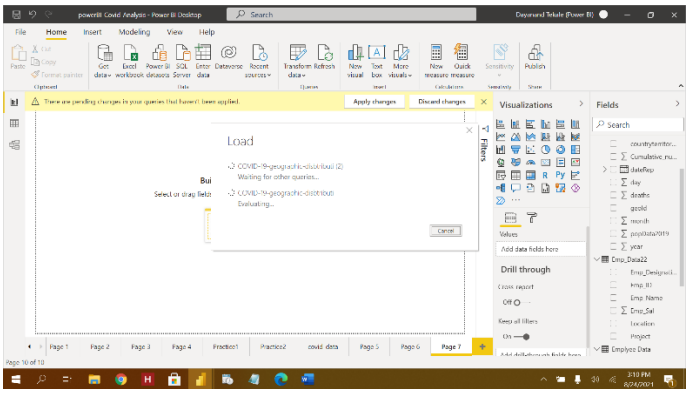
-Click on open



-Here file will be uploading and Data we can see tables and rows



-Select OK



-Go to the Dashboard page

-Here we can see various Visualisation tools

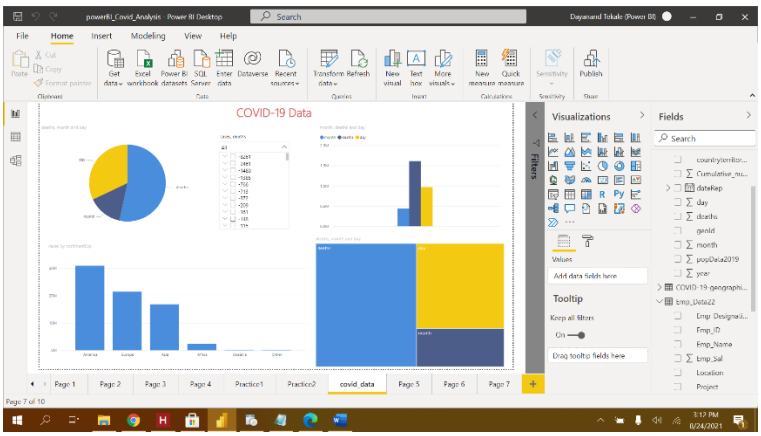
-Right side our data will be uploaded automatically

-As per our data requirement

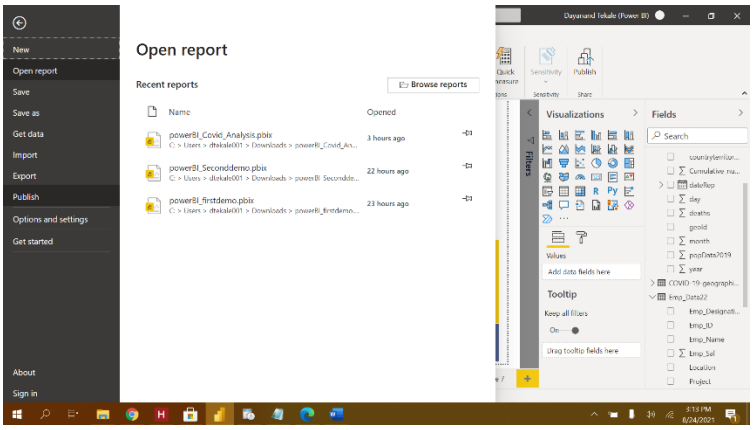
-We can drag Drop the table

-And we can plot the grap with the help of visualization tools.

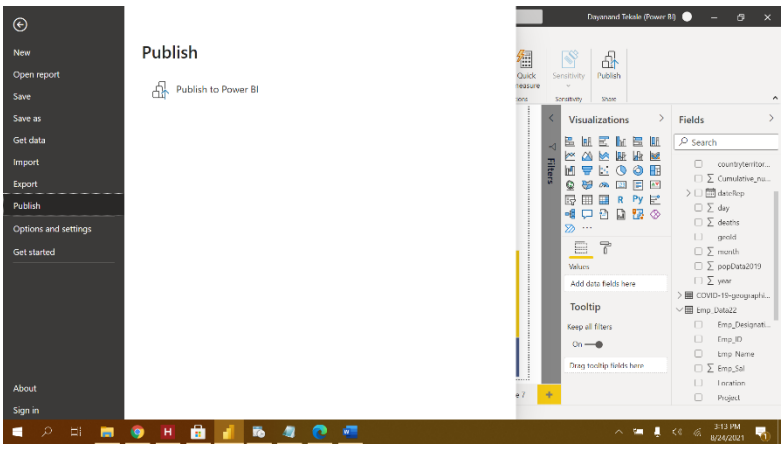
-In above Picture we can see the covid data visualization the basis of our data.



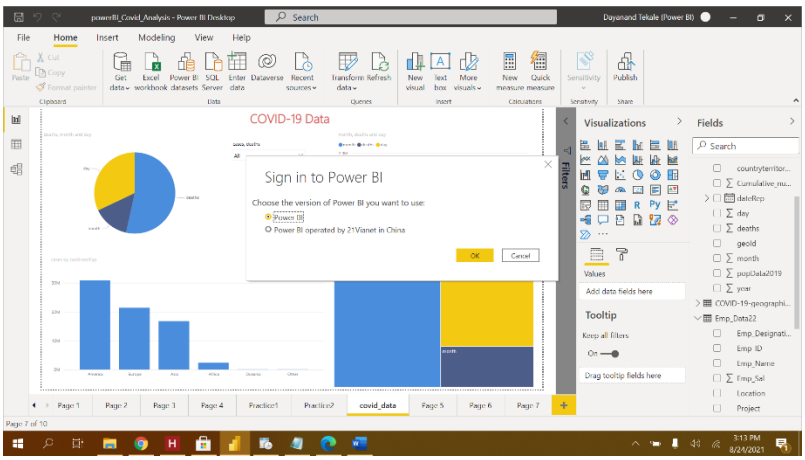
-Go to File
-S=We can see here the Various options so we can publish the dashboard properlly



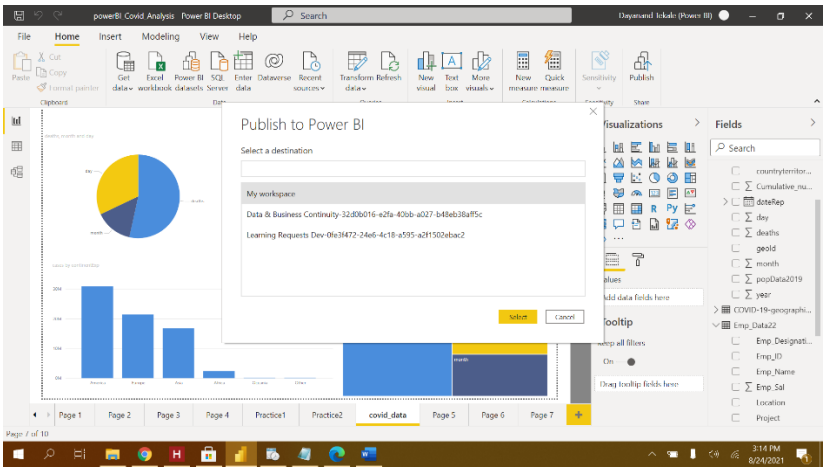
-Choose the option Publish Option



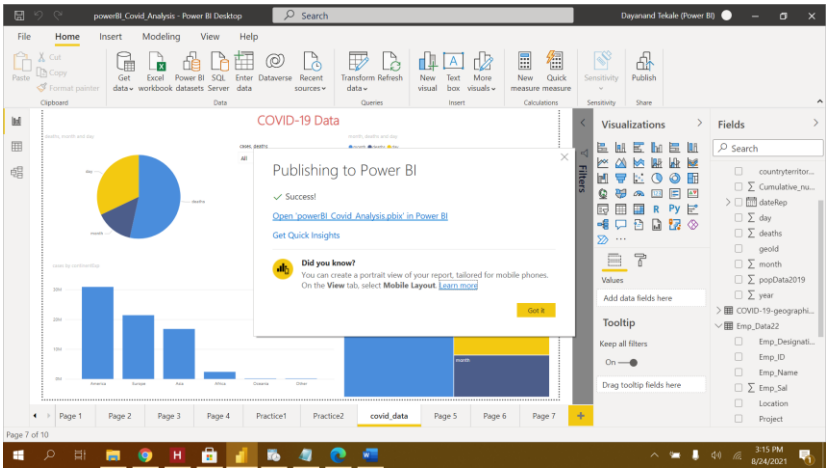
-Select publish option



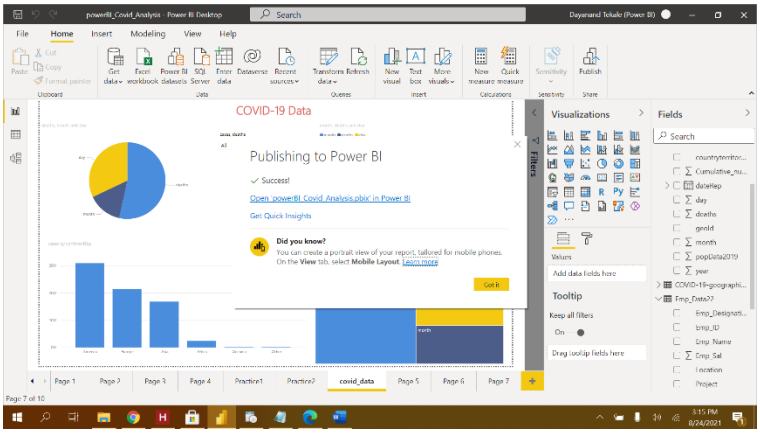
-Choose the Power BI



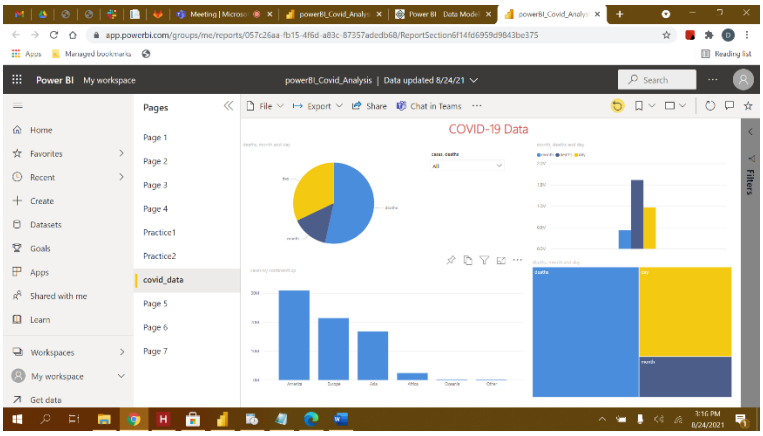
-Select on Select



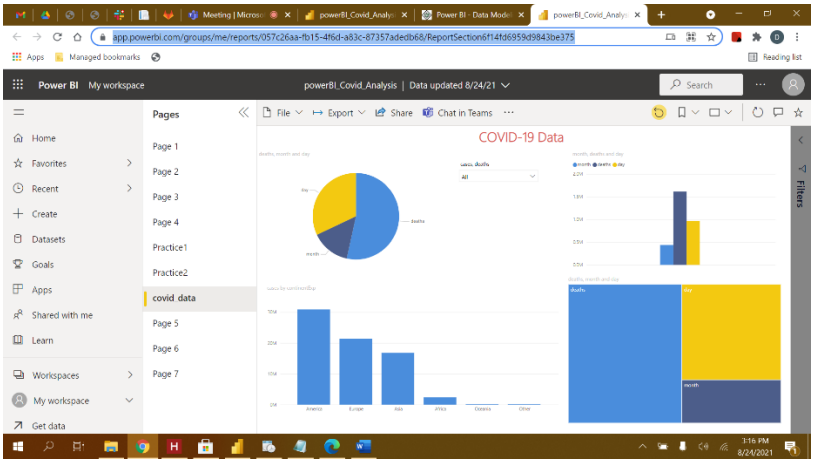
-Choose the first one we can see the our uploaded board publishment



-Click on Got it they give us notification read properlly



- https://app.powerbi.com/groups/me/reports/057c26aa-fb15-4f6d-a83c-87357adedb68/ReportSection6f14fd6959d9843be375
-With the help of URL we can access our published Dashboard



-This is all About how to Create Page And Publish.

Que3. Explain Import and Export with an example

Answer:

-Power BI's default connection type is Import. In fact, if you have never dealt with a data source that handles multiple loading methods, you may never know that there are different loading methods because Power BI automatically connects via import.

-Port will pull in the data from the data sources that you have connected to and store & compress the data within the PBIX file. The eventual publishing of the PBIX file will push the data to Azure services supported in the Power BI Backend.

-Import and Export Example:

-After Visualized the dashboard

-Here we can see the Graph plotted Dashboard as per our Tools and Requirements

-Importing the Dashboard

-Go to file

-We can see there are so many options

-With The help of option we can Choose the options for Importing and Exporting the Dashboard

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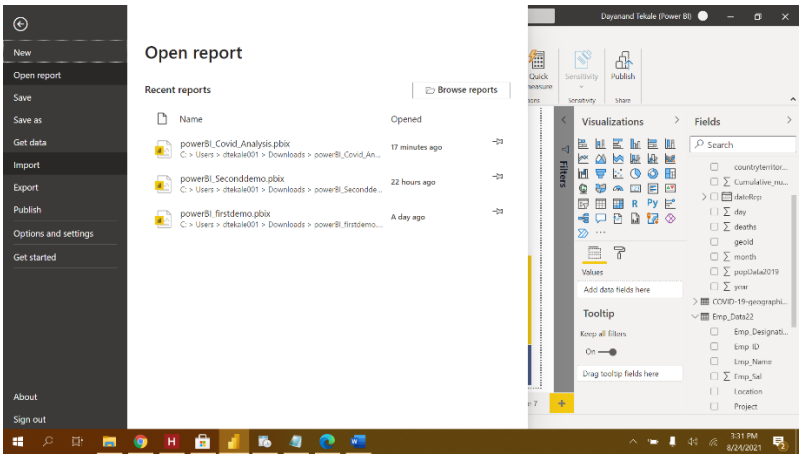
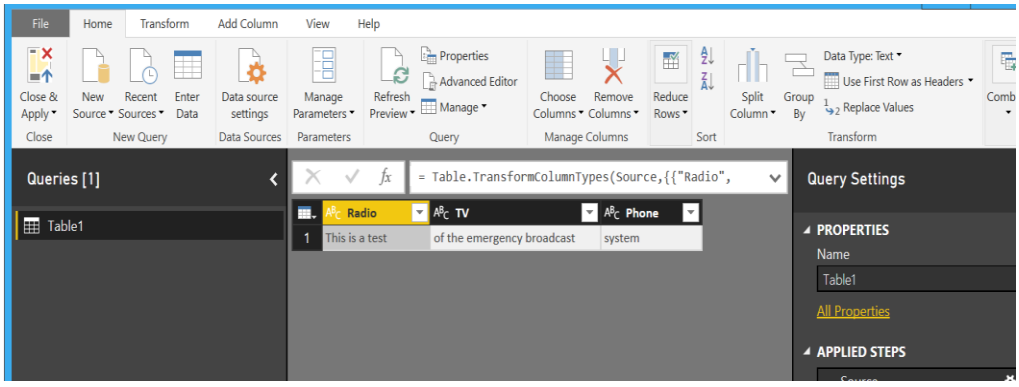


-Select Import

-When using import, the full Edit Queries suite is available to mash up any data source, transform data-sets and manipulate the data in any way we see fit.

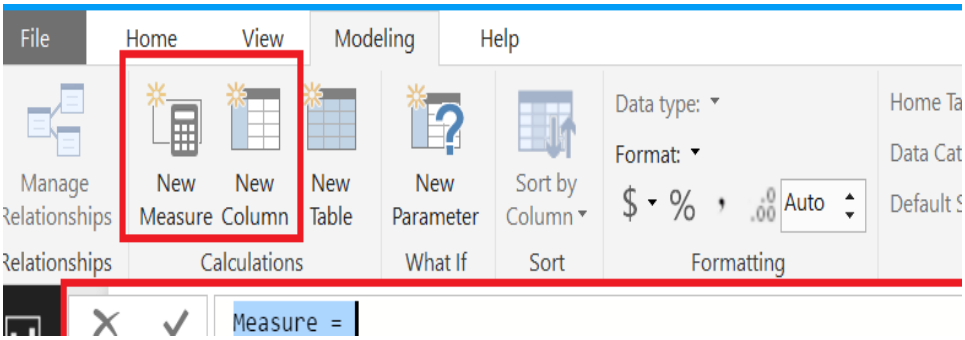


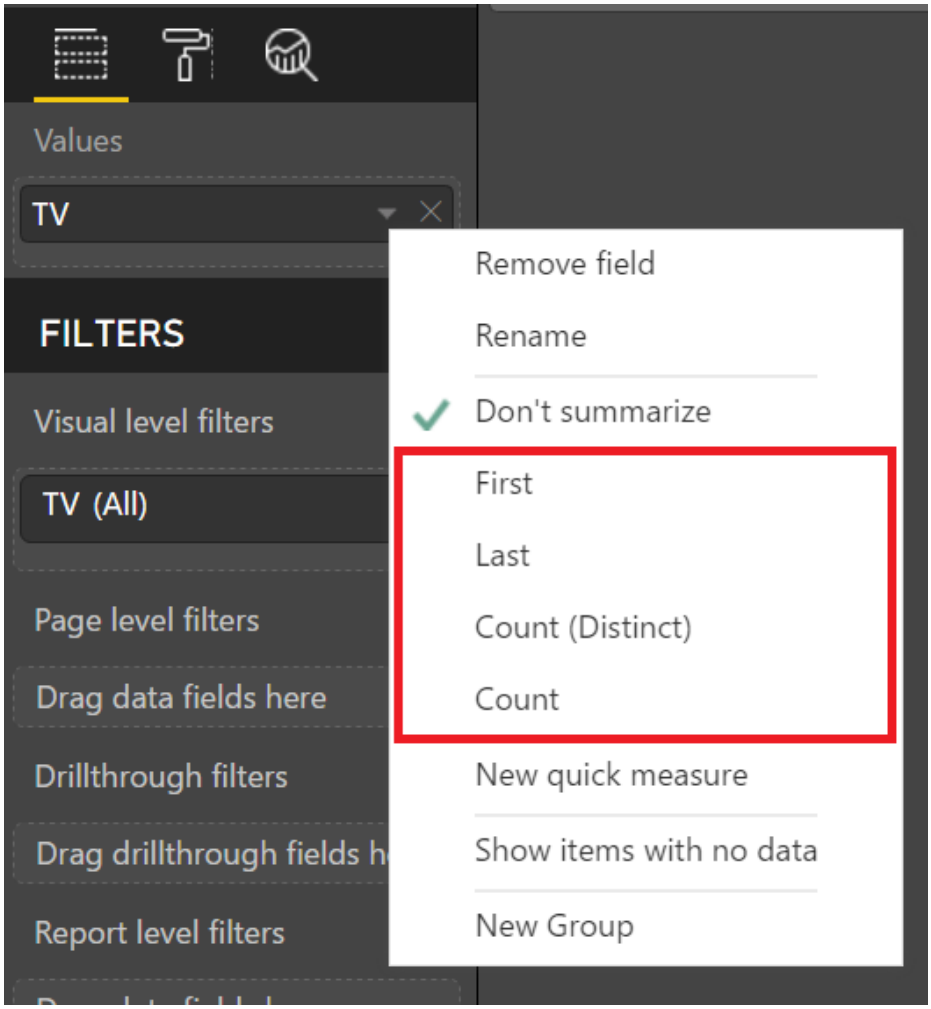
–At this point it is ready for we to extend by building out the relationships between our objects in the model section.

-After the model is set up we will now be able to add any additional calculations in the DAX (Data Analysis Expressions) formula language.

-There are two types expressions that we can create, measures and calculated columns. To create these, we can go to modeling, and select the option. When you do this, the formula bar will display.

-We can also right click on any column or field and select “New measure” or “New column” from those drop down lists.





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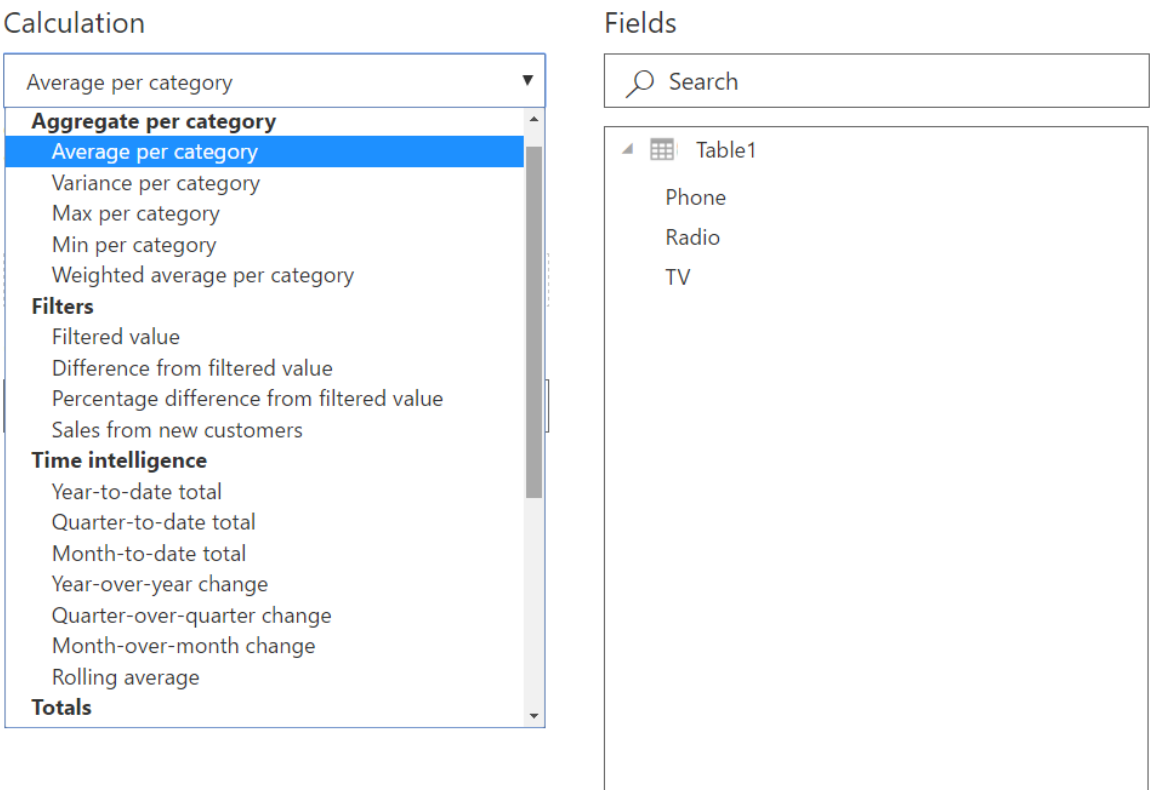
-Calculation



-From here we can Add calculation And relate the tables.

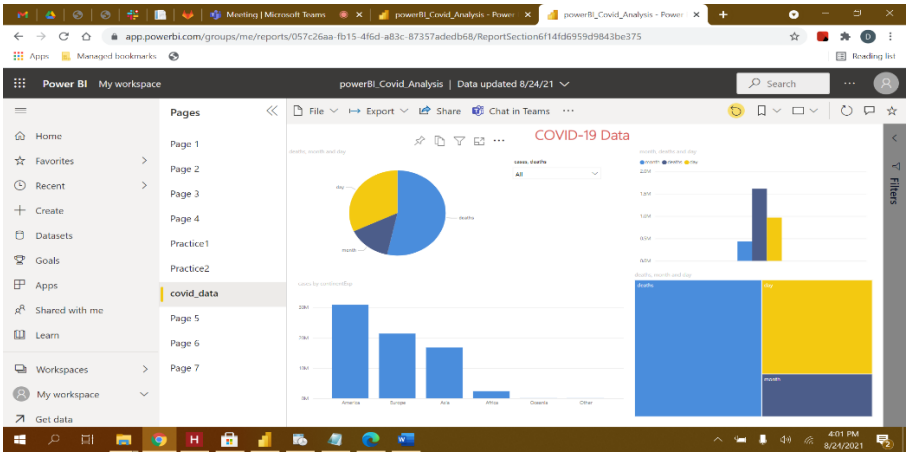
-Export Data from PowerBI

-After Creating Dashboard

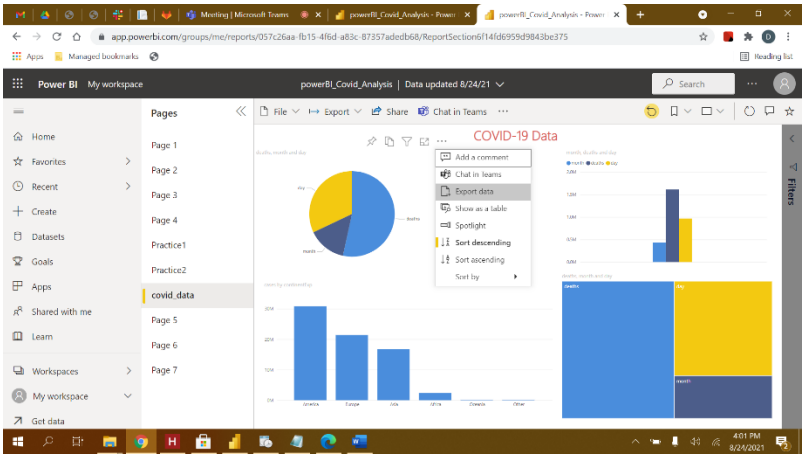
-Publish the Dashboard And we can See the file will be opened in online server

-Means our file will be successfully published on the portal

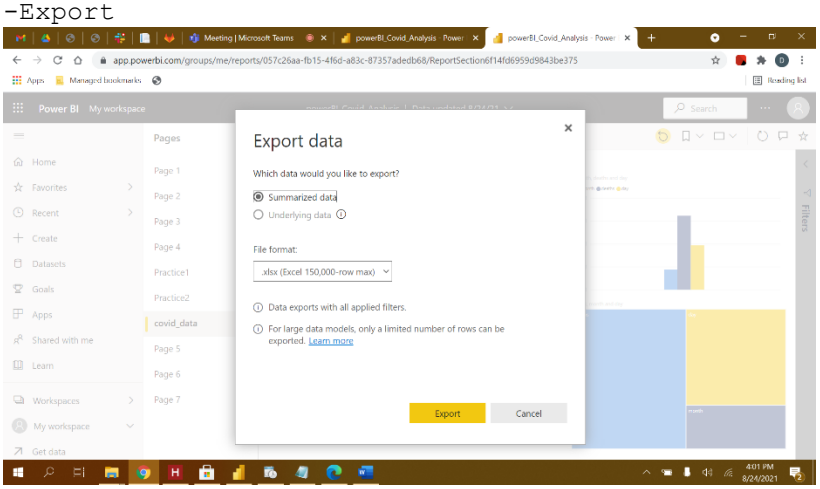
-So we can start the data Exporting from Their also

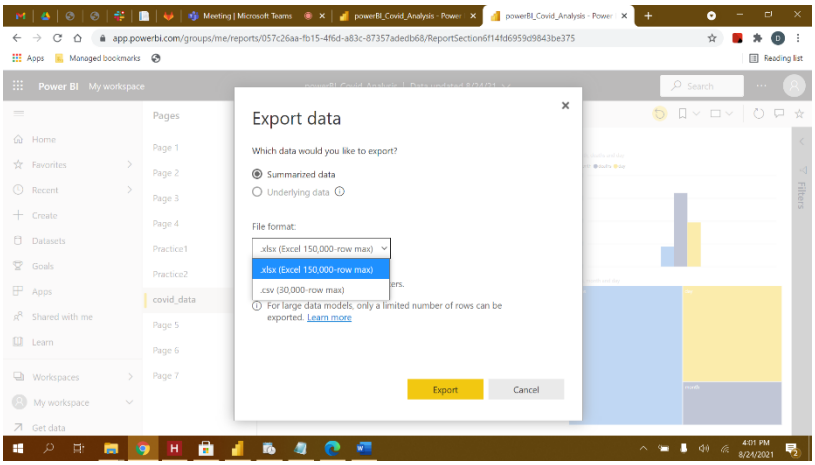


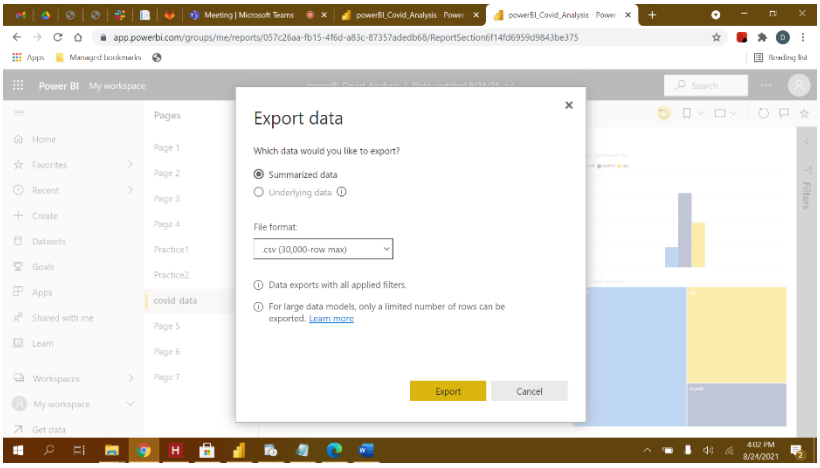
-Go to particular/Separate visual or We can import all Also



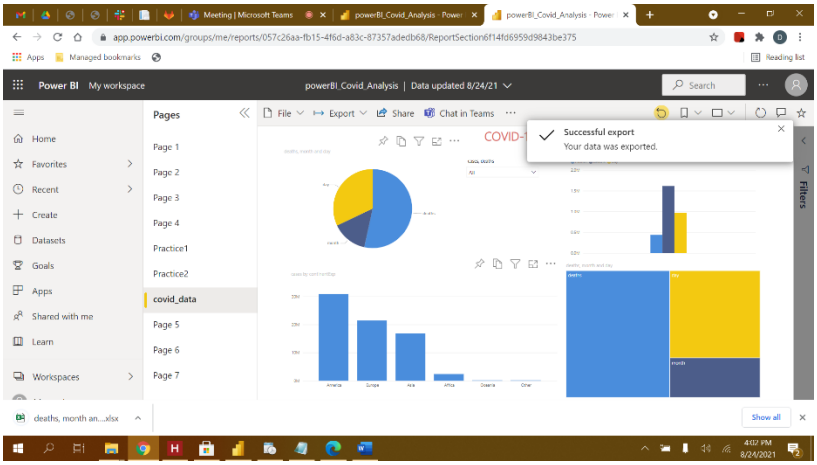
-Export



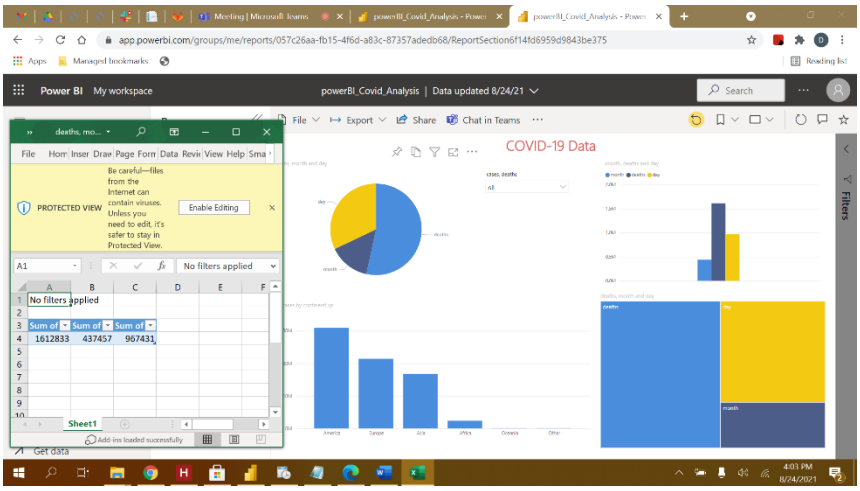




-Choose Format



-We can see here Data Will be Exported



Que4. Explain table and Matrix in power BI with an example

Answer:

-The matrix visual is similar a table. A table supports two dimensions and the data is flat, meaning duplicate values are displayed and not aggregated. A matrix makes it easier to display data meaningfully across multiple dimensions.

-It supports a stepped layout. The matrix automatically aggregates the data and enables we can drill down.

-Power BI has 2 similar visuals for presenting tabular data: Table and Matrix. This leads to confusion on which one to use when. Below is a brief summary on the differences, advantages, and disadvantages between these two visuals.

-Let me know in comments if I have missed anything. Table As the name itself suggests, this is a basic 2 dimensional visual to represent tabular data.

-Its a primitive 2-D grid representation of the data. If we want to add more dimensions, we can only add them as 'values', which will appear as new columns.

-Basically, flat structure of the data. For example, in the below sample data, we have 3 dimensions — Client, component, and region. Consider that we want to present average performance and reliability across these dimensions, which will look like below in table visual.

-Table representation of example data with 3 dimensions As you can imagine, it gets hard to interpret the data as the number of dimensions and measures grow.

-If there 2 dimensions and each have 10 possible values, we will need 100 rows to represent all possible combinations! This is the major drawback of this visual as there is no easy way to summarize by higher dimension and drill down further to other lower dimensions.

-That's where Matrix visual comes in. Matrix To be blunt, Matrix is just a fancy name, given to excel's pivot table in the world of Power BI.

-Just like pivot table in excel it becomes easier to represent the data across multiple dimensions. In Matrix visual, you have the option to add rows, columns, and values unlike Table.

-Below is the brief what exactly these mean and enable us.

-Rows: Each dimension in the data can be added as a row in a Matrix visual. If you add multiple rows, matrix automatically enables drill down mode. Using this mode, you can dig from a higher aggregated dimension to other lower dimensions. Below example demonstrates this concept.

-Tables in PowerBi

-Go to the new page

-Load Data

-We can Analyze the Data first

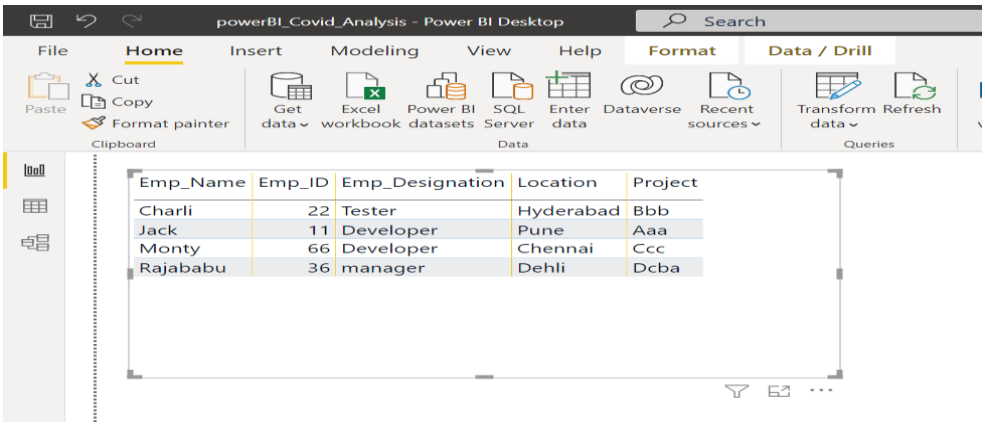
-Go to Right side Data will Be Shown

-Analyze Data

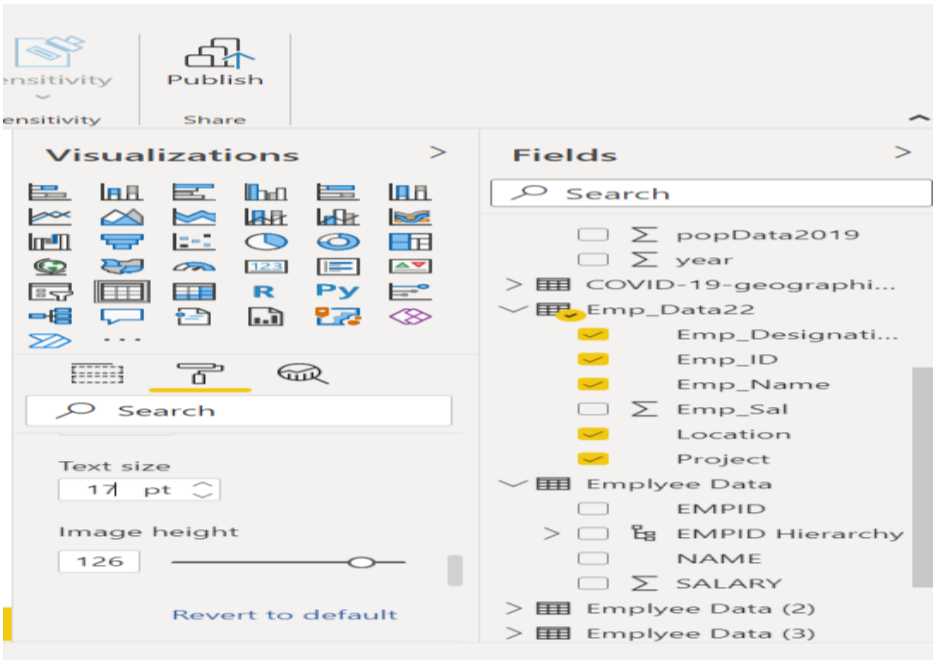
-Go to the Name Data first

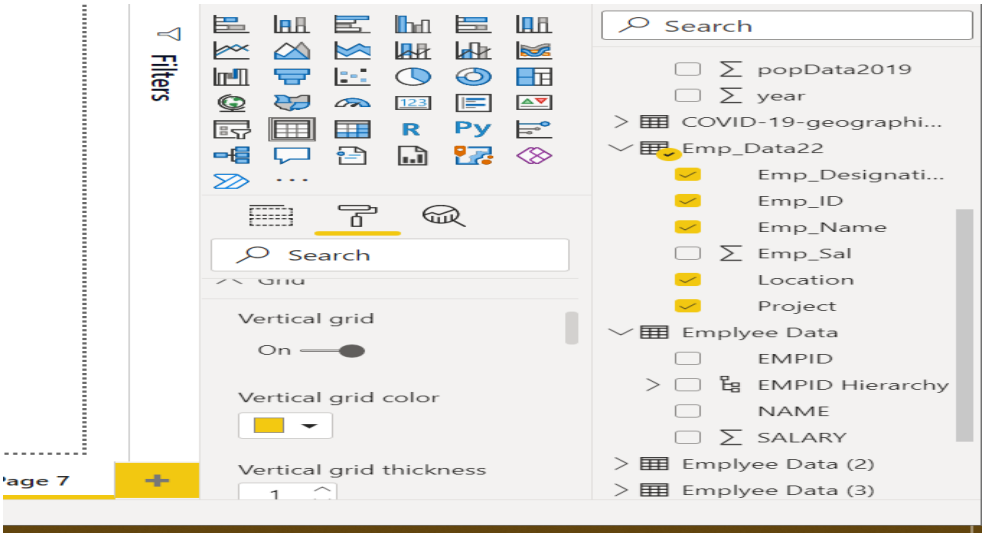
-Just Drag And Drop on the Visual Box

-Automatically added the Data



-Right Side Having the Visualization Option




Filters
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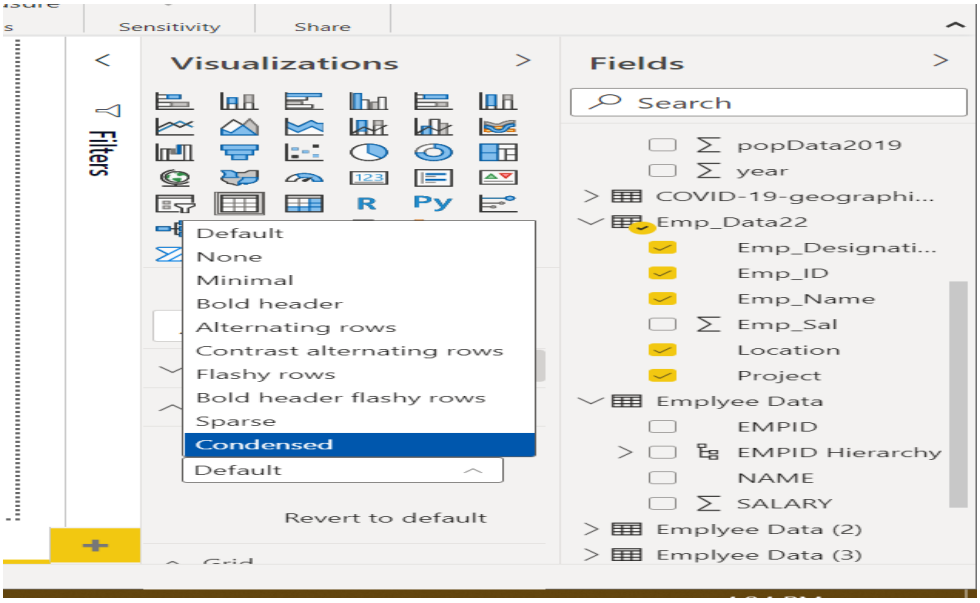
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Flashy rows
Bold header flashy rows
Sparse
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Revert to default
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Emp_Designati...
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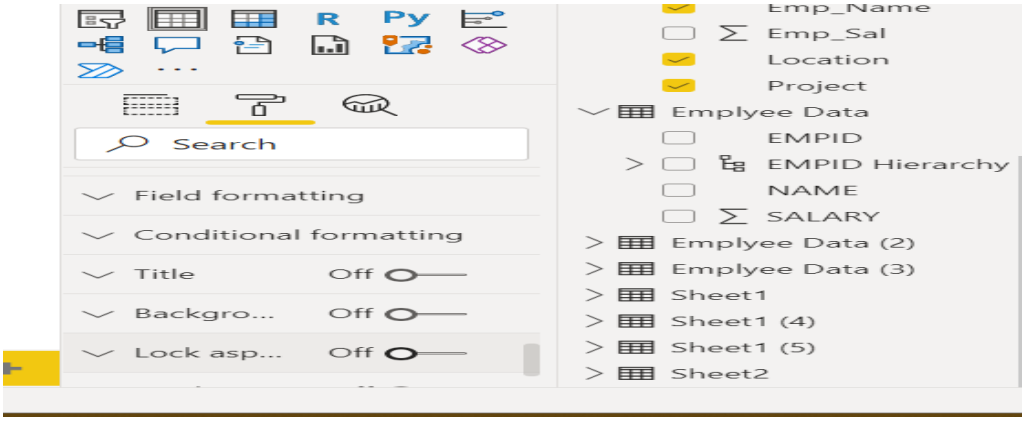
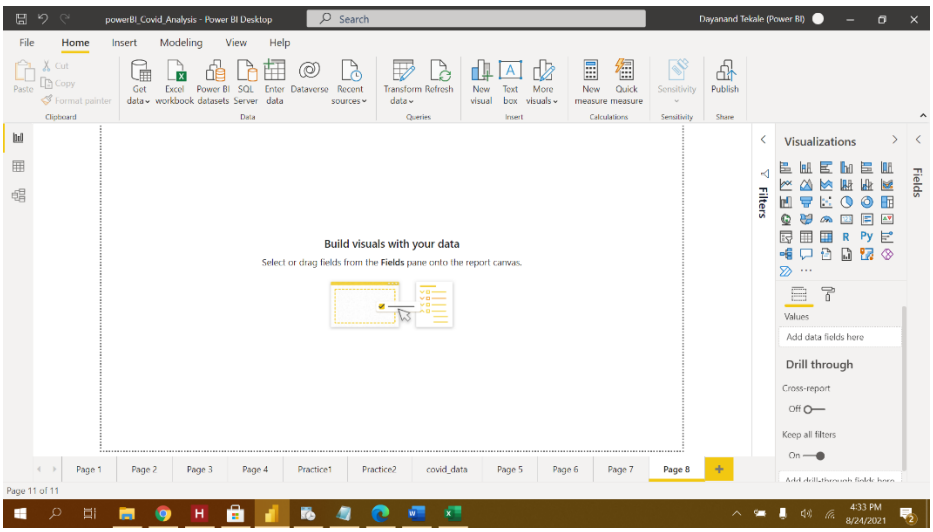


-Set the Perfect Setting Our As per our Requirement Change the Default values

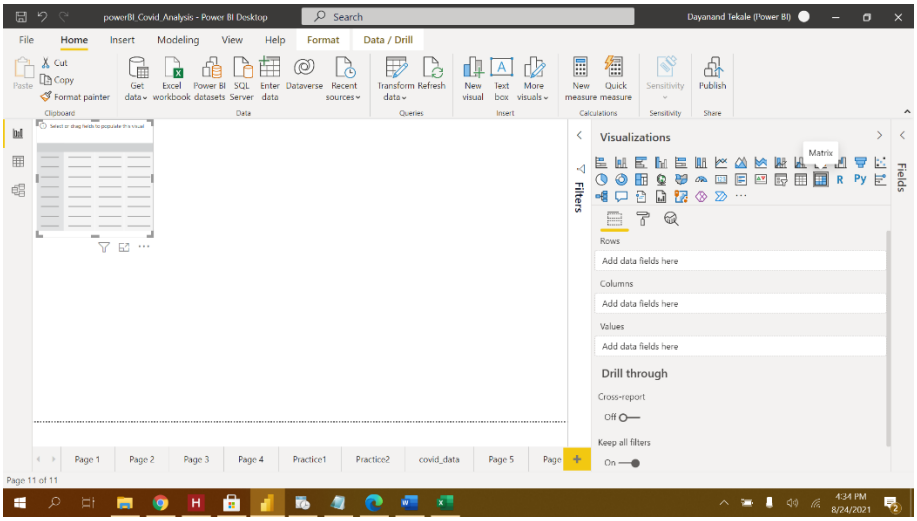
-Above picture we can see the Tables

-For Matrix :

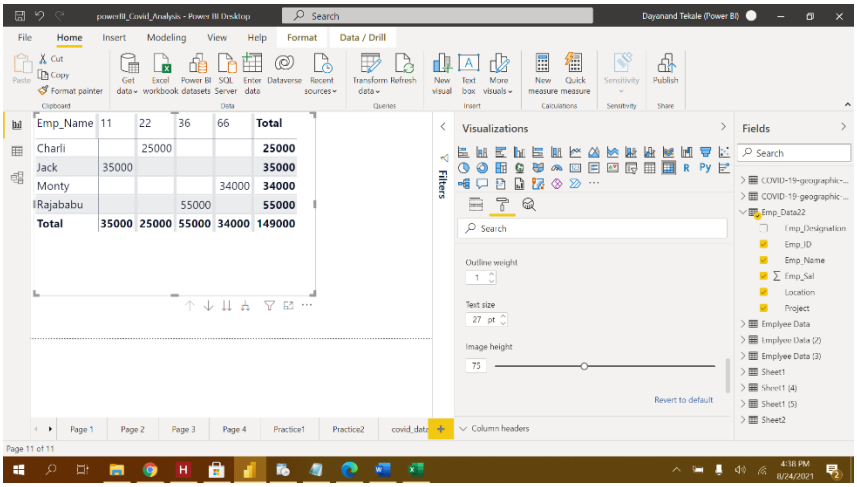
-Sometimes table visualization is not sufficient, and you want to add more granularity to your chart. This is where matrix chart visualization becomes helpful. You can find the Matrix chart under the Visualization pane.



- Click on the Matrix chart shown above, and it will create a chart in the canvas. Nothing is displayed yet because we have yet to add the required visualization arguments.



-Under the Fields pane, drag Purpose into Rows and Date into the Columns pane.

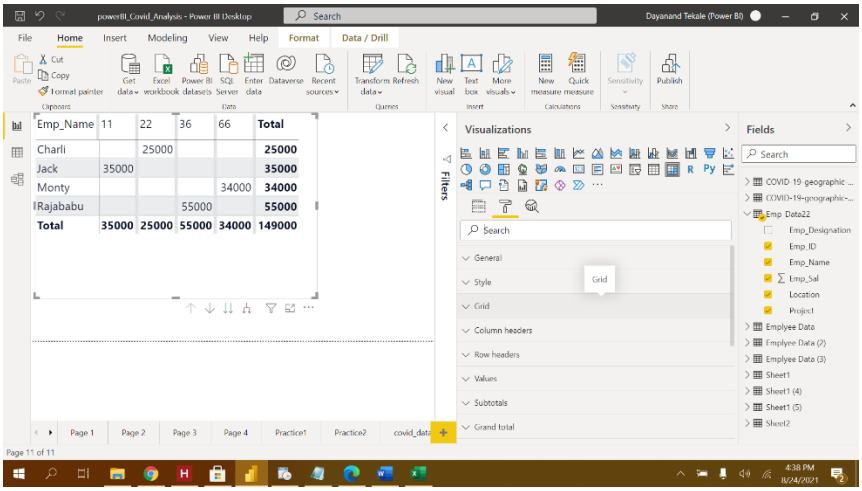


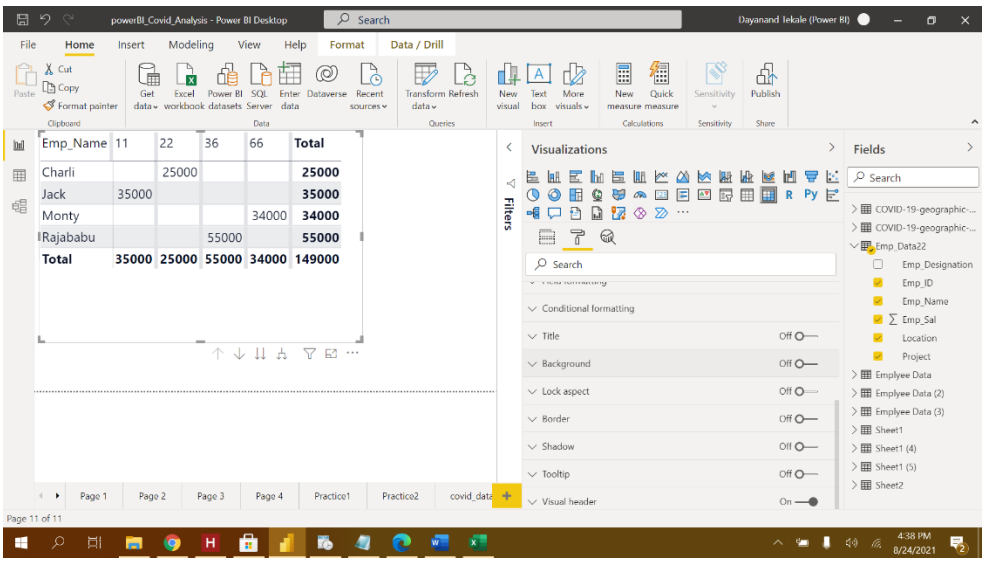
-After Drag And Drop we can see here the Columns and Rows are added

-After that Go to Visualization

-In Visualization there are so many Options for the arrange / Rearrange the Matrix

-As per our Better Visualization Set the setting





- Multivariate reporting is a common requirement in business intelligence. We will often be asked to present data from different dimensions. If the variables are textual in nature, table and matrix visualization is a good option to explore. This type of visualization is used across industries and is therefore a great skill to have.