Assignment_PowerBI3 **25/08/2021**

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Que 1. Explain M Query with an example and attach all the screenshot of the process ?

Answer:

-Microsoft Power Query provides a powerful data import experience that encompasses many features. Power Query works with Analysis Services, Excel, and Power BI workbooks. A core capability of Power Query is to filter and combine, that is, to mash-up data from one or more of a rich collection of supported data sources.

-Query M Formula Language is a useful and expressive data mashup language. But it does have some limitations. For example, there is no strong enforcement of the type system. In some cases, a more rigorous validation is needed. Fortunately, M provides a built-in library with support for types to make stronger validation feasible.

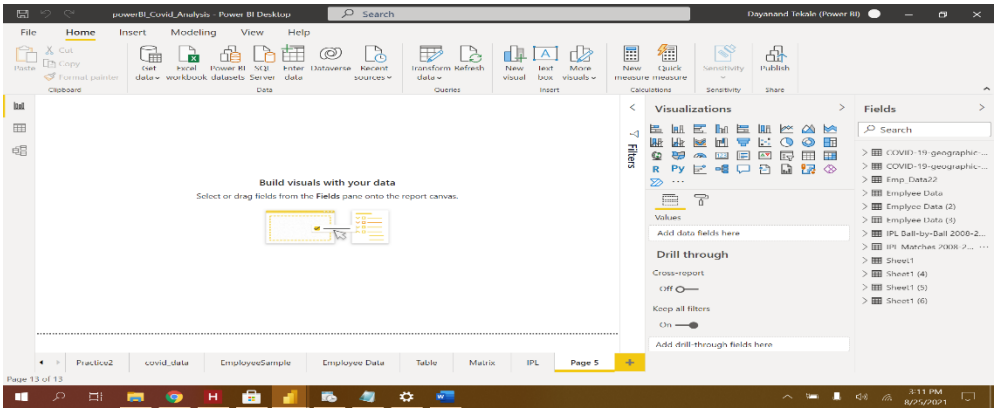
-Developers should have a thorough understanding of the type system in-order to do this with any generality. And, while the Power Query M language specification explains the type system well, it does leave a few surprises. For example, validation of function instances requires a way to compare types for compatibility.

-By exploring the M type system more carefully, many of these issues can be clarified, and developers will be empowered to craft the solutions they need.

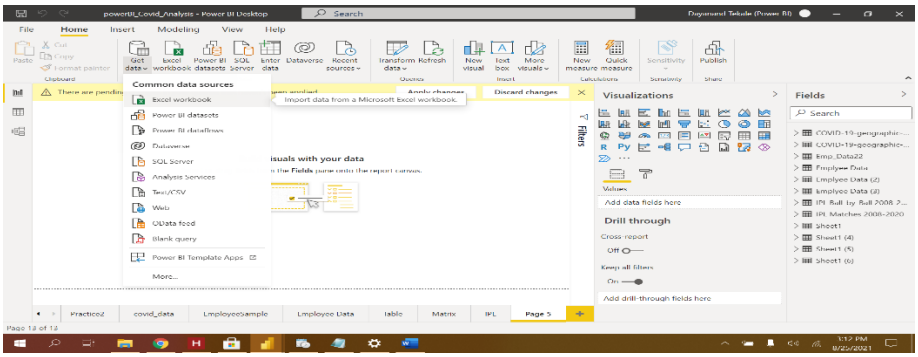
-Example:

-Open Power BI Desktop

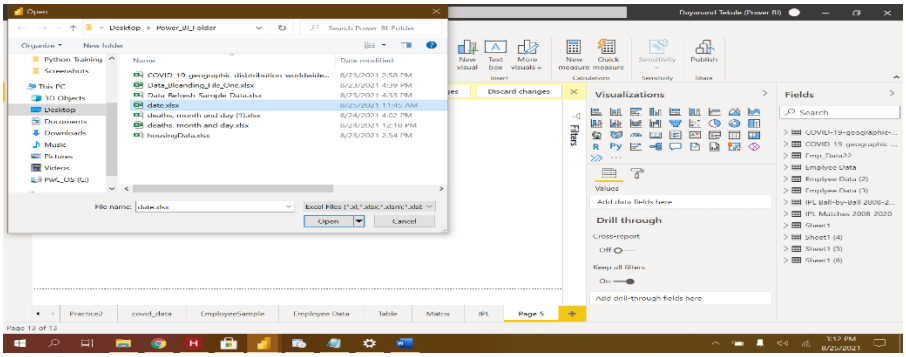
-Home



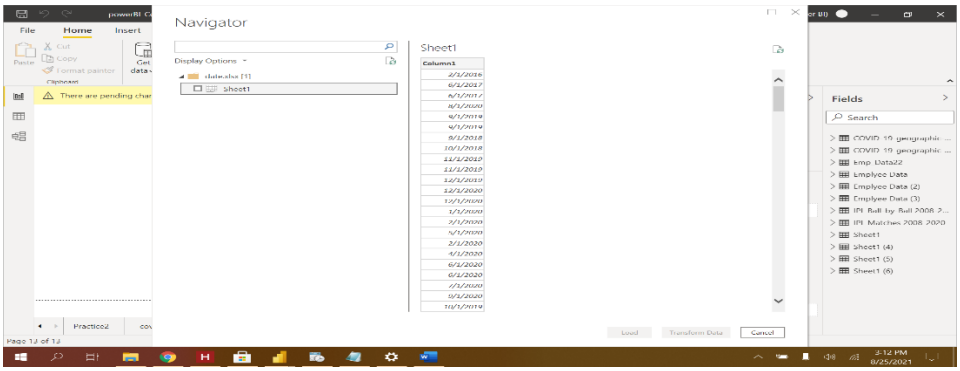
-Get data



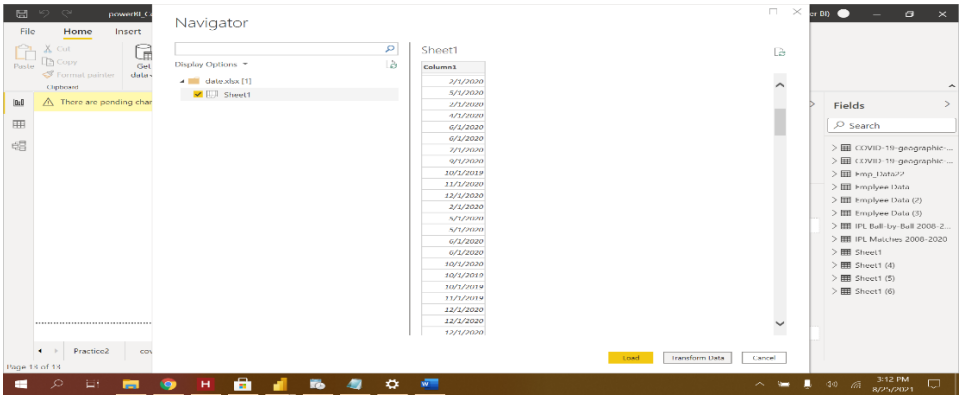
-upload file

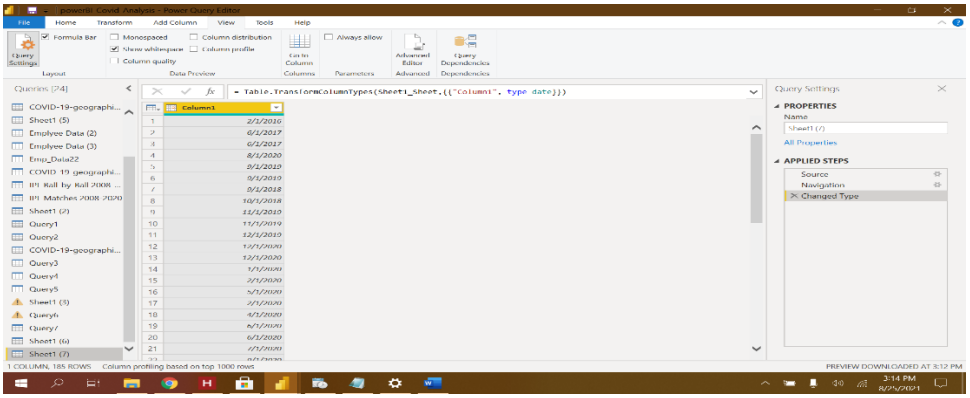


-Select Sheet



=>Transform data





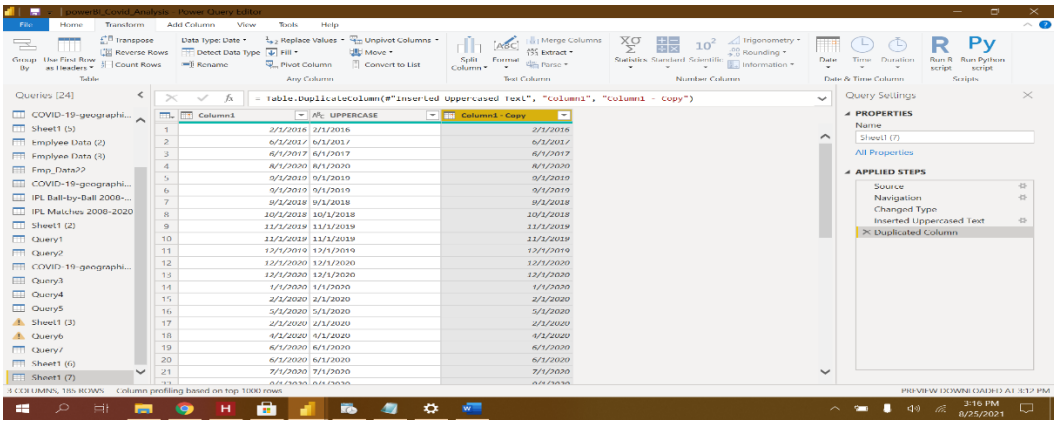
=>Home

=>remove table(other then first column)---select first column---remove other option choose

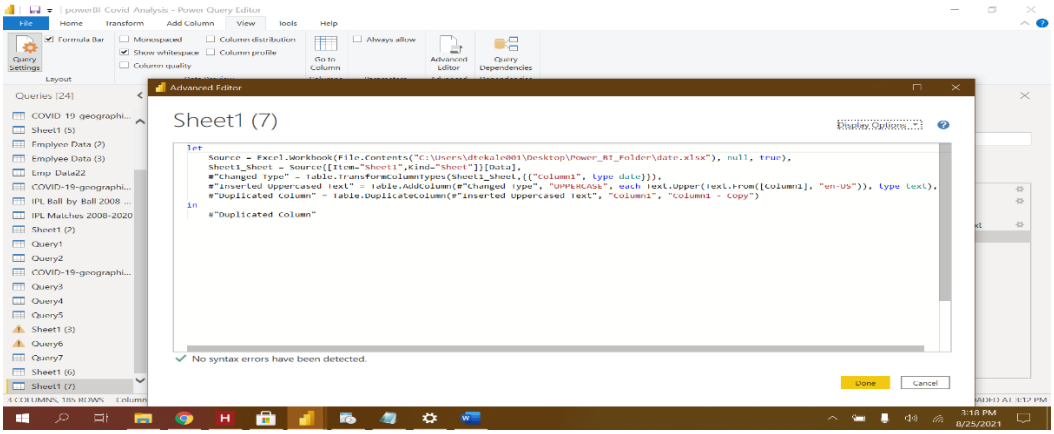
=>Perform Operation

=>Add Columns=>add duplicates-----(Means Perform Some Operation)

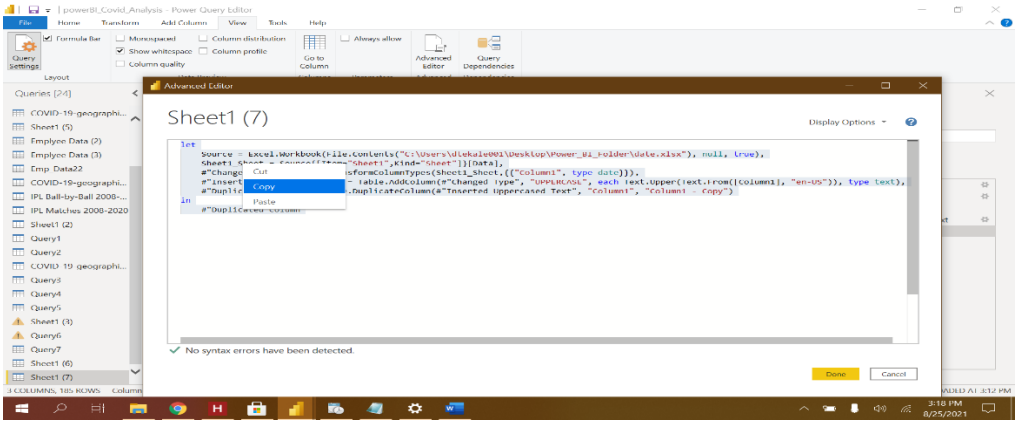
=>Transform=>Format=>Upper/Lower



=>View=>Advance Editor ----[see Query]



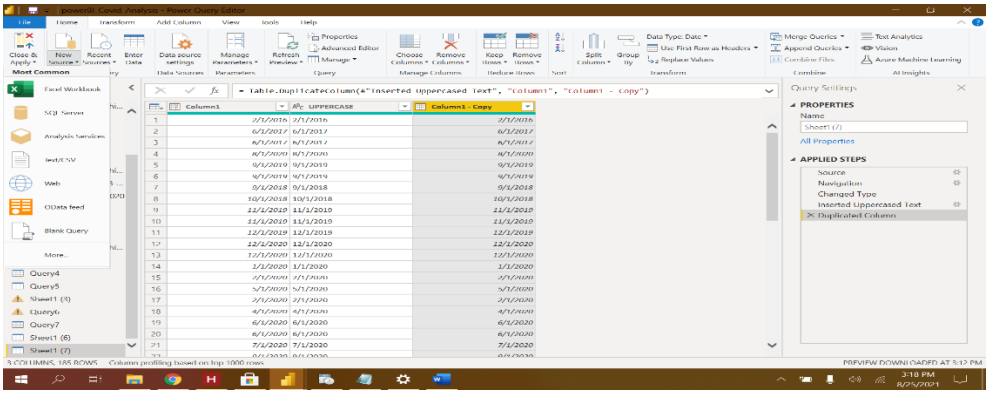
=>copy query(**)



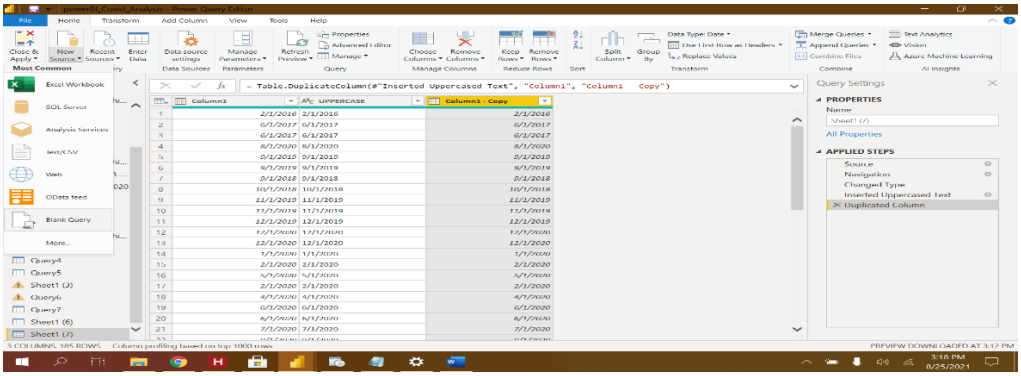
=>done

=>Go to home

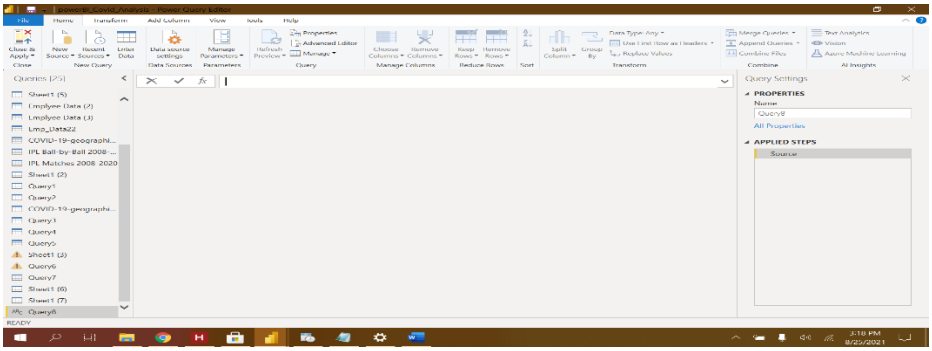
=>New Source

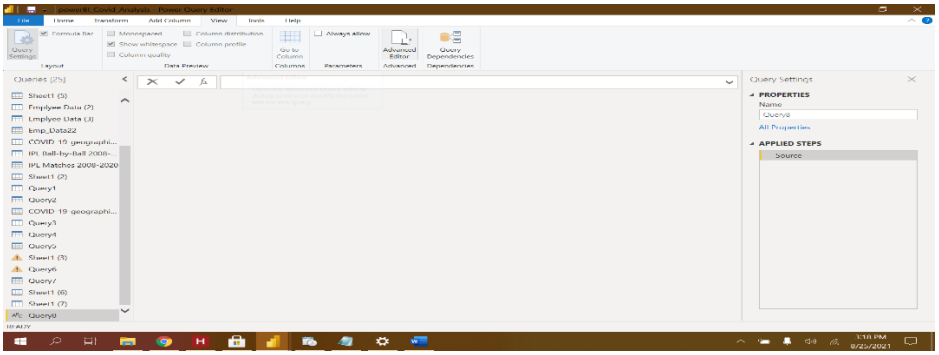


=>Blank Query



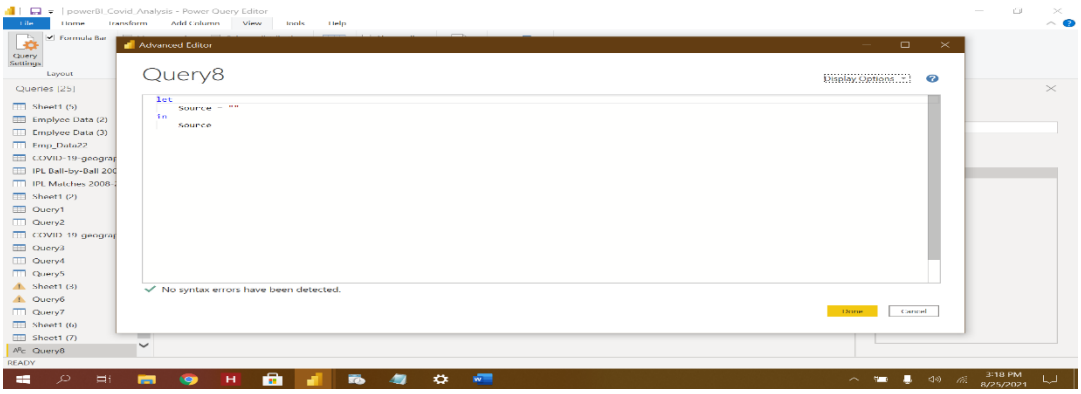
=>View=>Advance editor

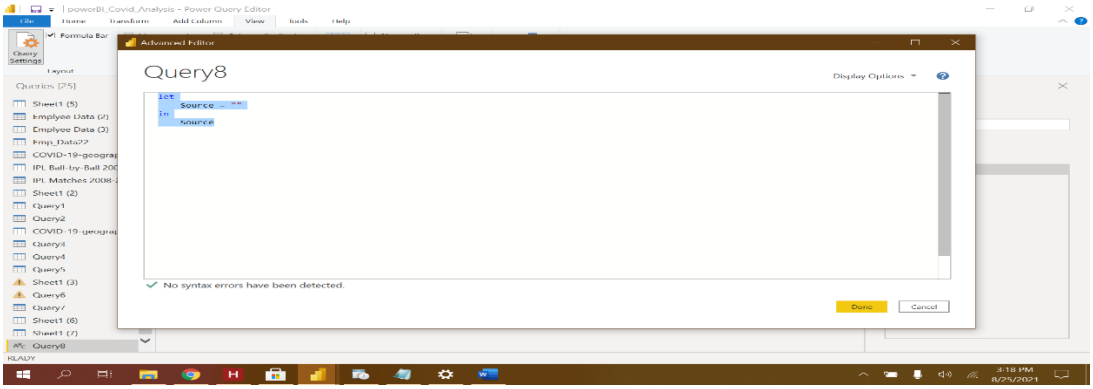


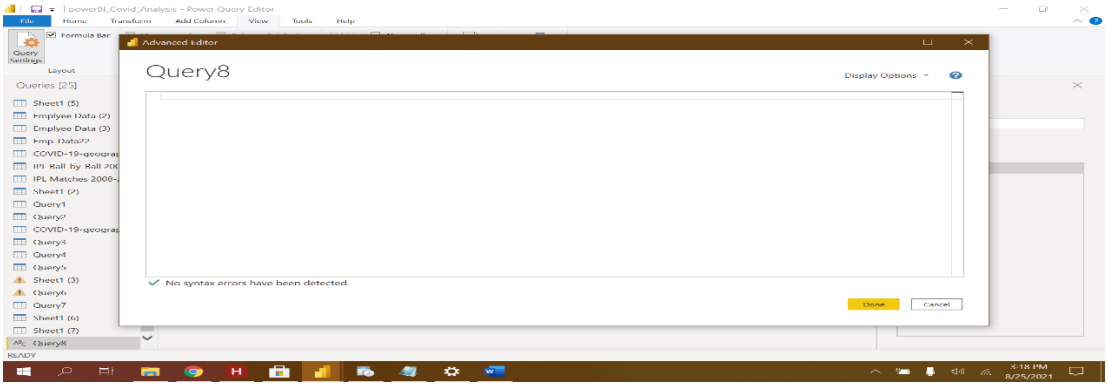


=>Query....Remove

=>Their All-ready Query







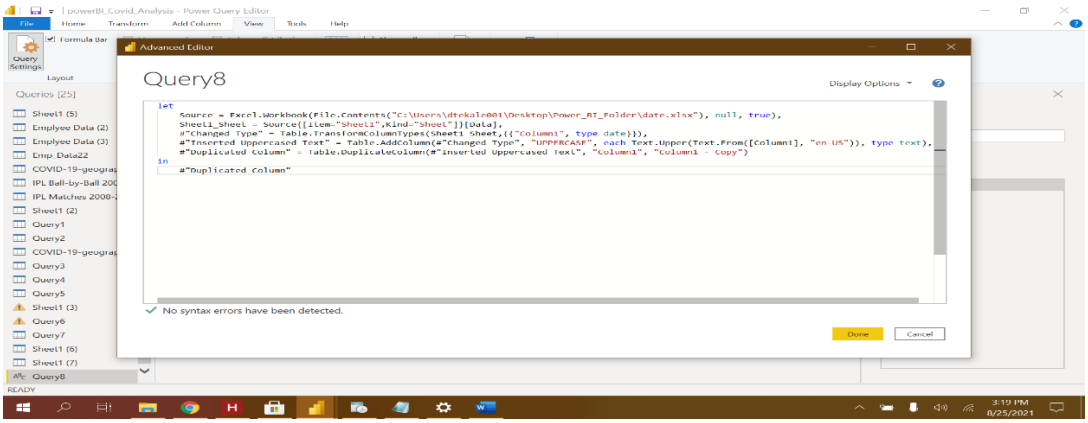
=>Paste copied Query(**)

=>As per requirement we make changes on Data

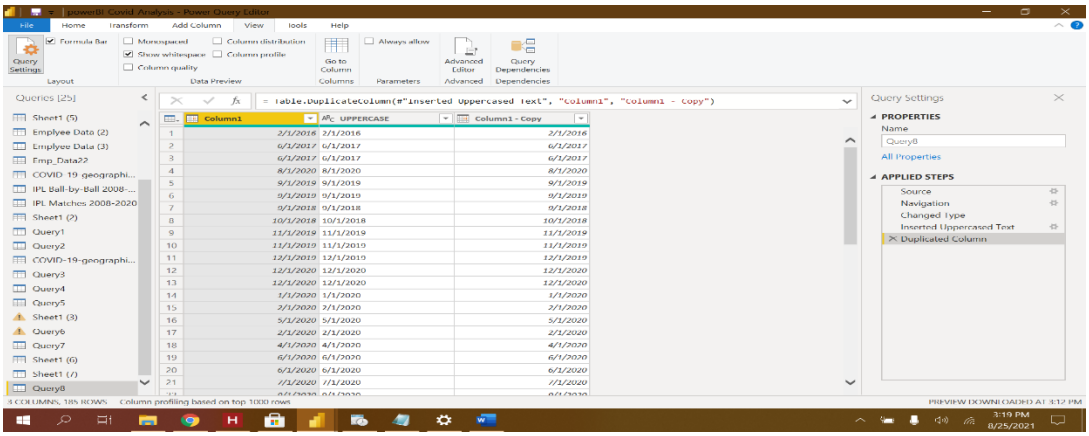
=>These all Steps are Added in our program Analyze Query

=>Query Having the first 2 lines for Sheet

=>Another all lines for the Changes we makes in our DataSheet



=>Done



=>See...Applied Step

=>See table Automatically Here

=>As per Query we can access the data or Tables for Visualization perpose

Que2. What is DAX? Why DAX Required?
Answer:

-Data Analysis Expressions (DAX) sounds a little intimidating at first, but don't let the name fool.

-DAX basics are quite easy to understand. First things first DAX is NOT a programming language.

-DAX is a formula language. You can use DAX to define custom calculations for Calculated Columns and for measures (also known as calculated fields).

-DAX includes some of the functions used in Excel formulas, and additional functions designed to work with relational data and perform dynamic aggregation.

-DAX formulas are very similar to Excel formulas.

-To create one, you type an equal sign, followed by a function name or expression, and any required values or arguments.

-Like Excel, DAX provides a variety of functions that we can use to work with strings, perform calculations using dates and times, or create conditional values.

-If We want to customize calculations on a row-by-row basis, DAX includes functions that let We use the current row value or a related value to perform calculations that vary by context.

-DAX includes a type of function that returns a table as its result, rather than a single value.

-These functions can be used to provide input to other functions.

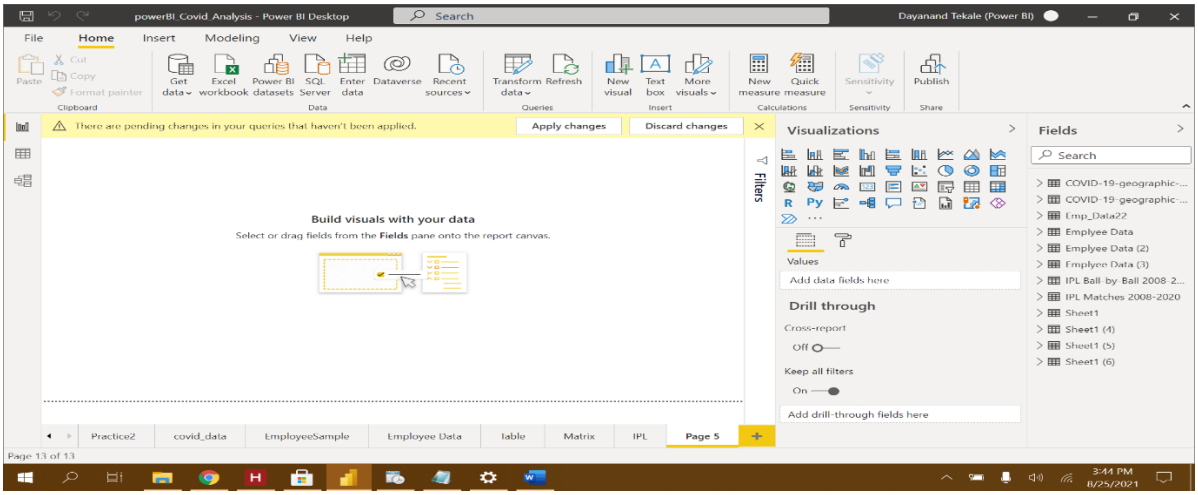
-Time Intelligence Functions in DAX allow calculations using ranges of dates and compare the results across parallel periods.

Que3. Explain Min, Max, Sum, Count with an example
Answer:
-Minimum, Maximum, Sum Function we can use directly in Power BI
-It helps us for great visualization and Fast calculation
-With the help of these function we can Make changes as per required in Data as well as in Visualization.

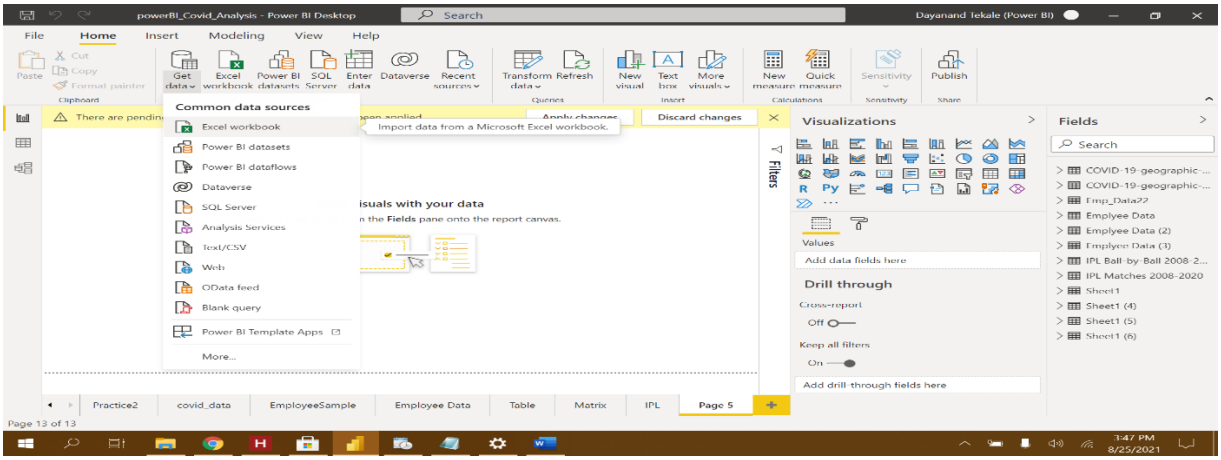
-Steps for **Min:**

=>Go to Power BI Desktop

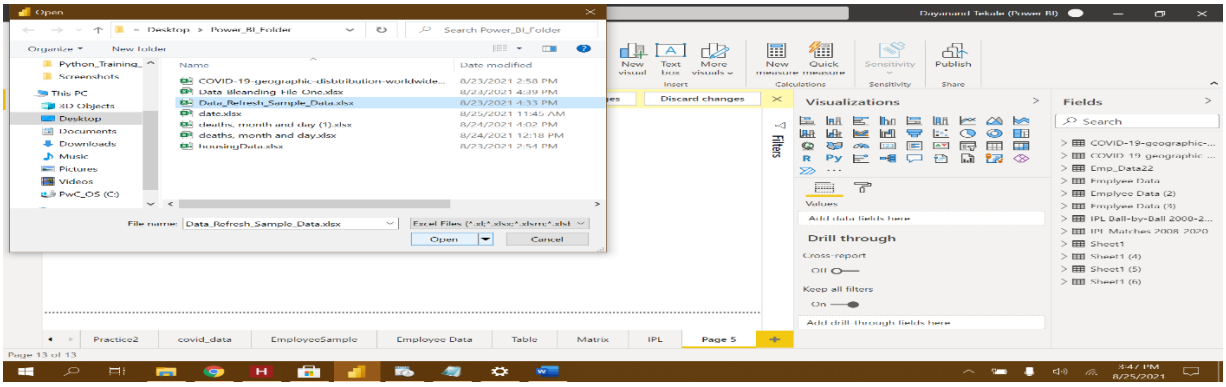
=>Report----(means Main Sheet of powerBI)



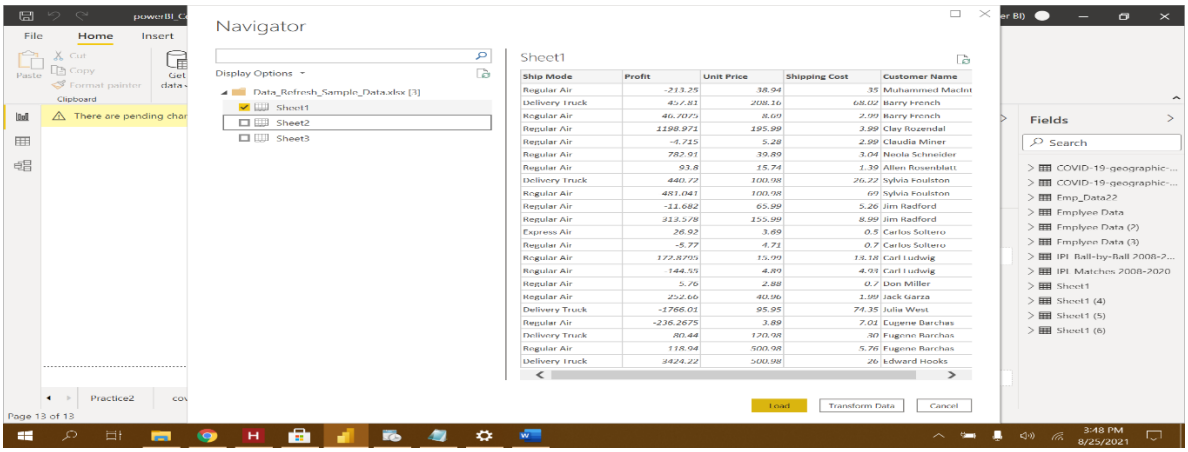
=>Get Data



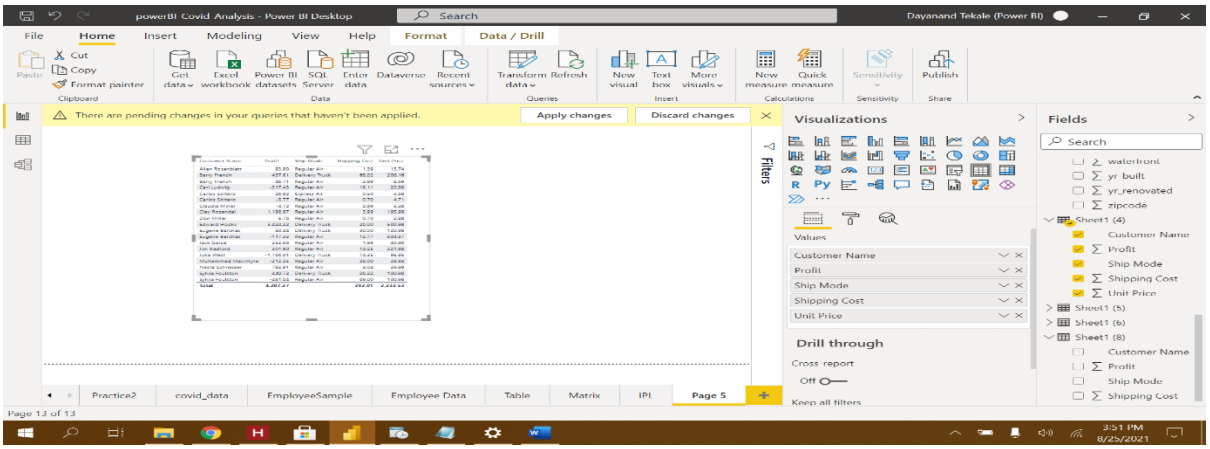
=>load Data



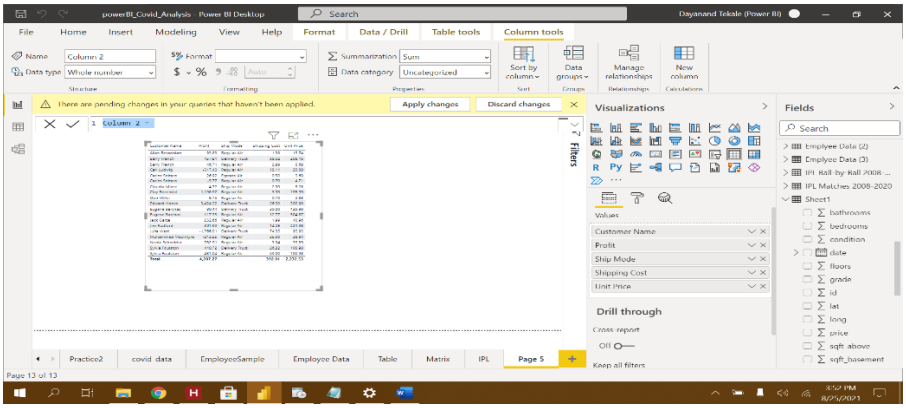
=>Upload



=>Load Sheet

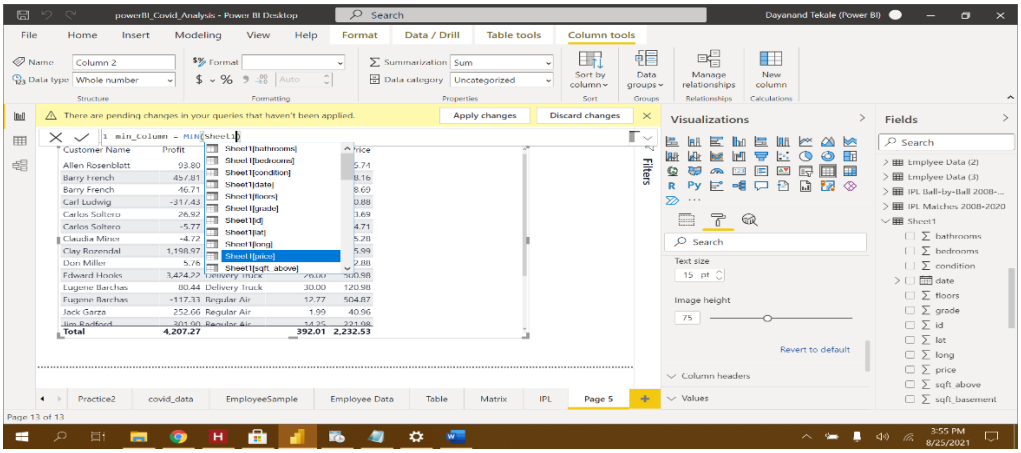


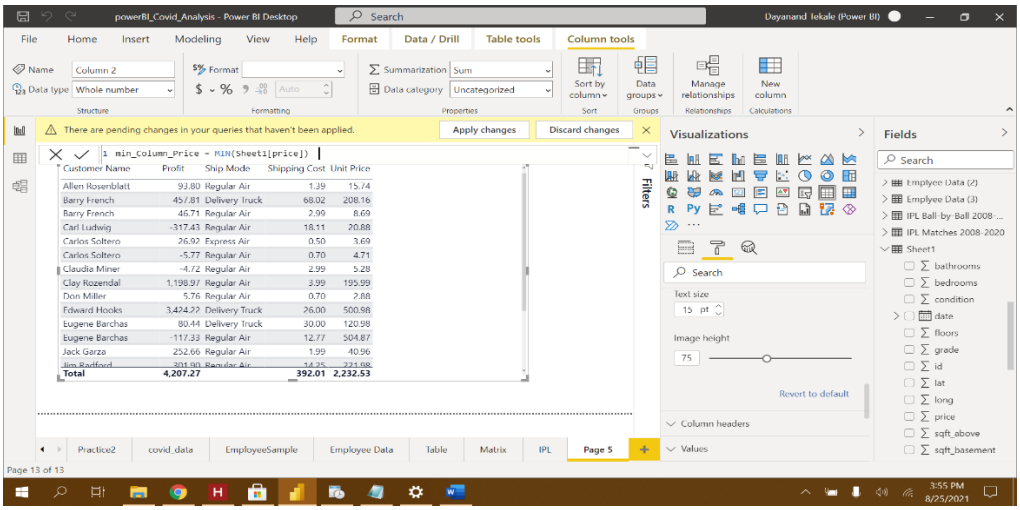
=>Modelling
=>* New Columns*
=>Click

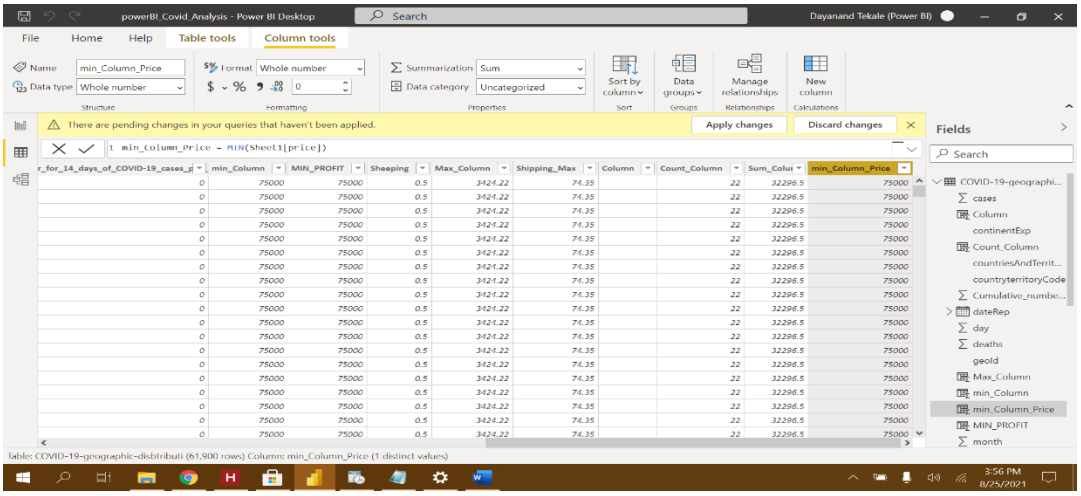


=>Specify.....(MIN,MAX,AVG)

=>MIN

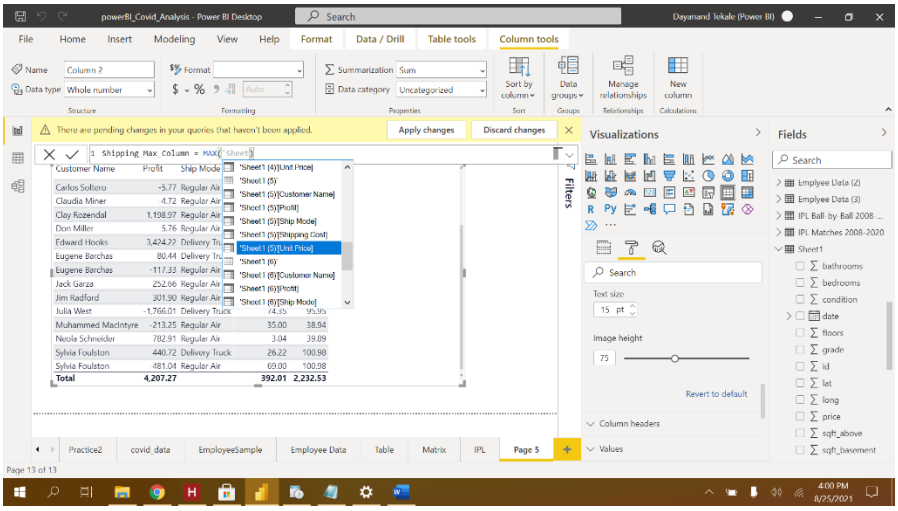


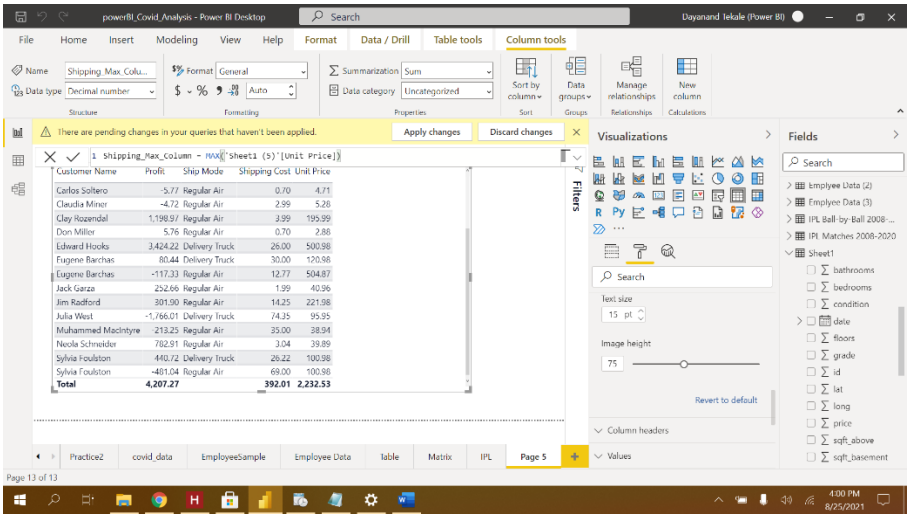




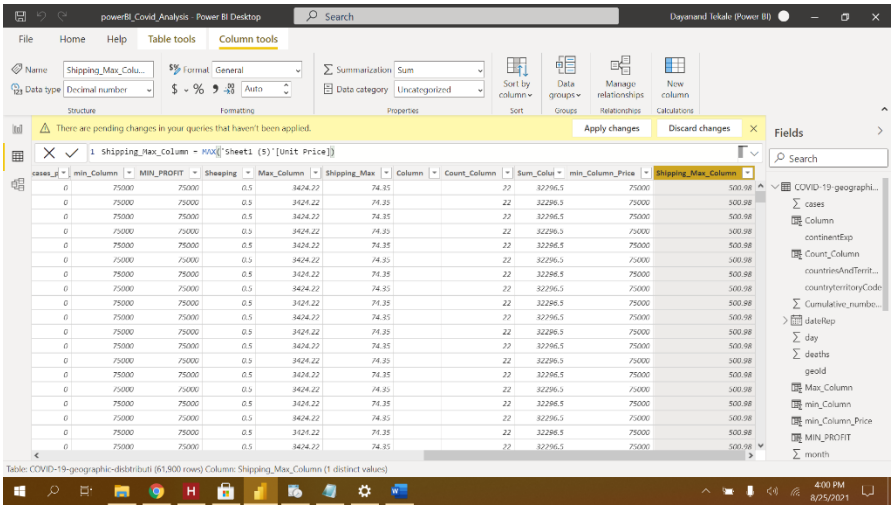
=>See here in Data New Column is added
=>Min_Column_Price

=>For Max
=>GO to Modelling
=>New Column

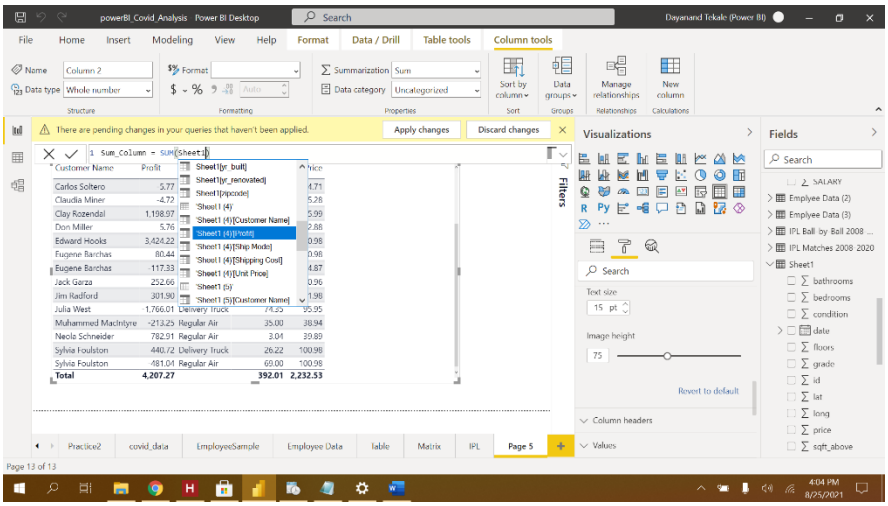


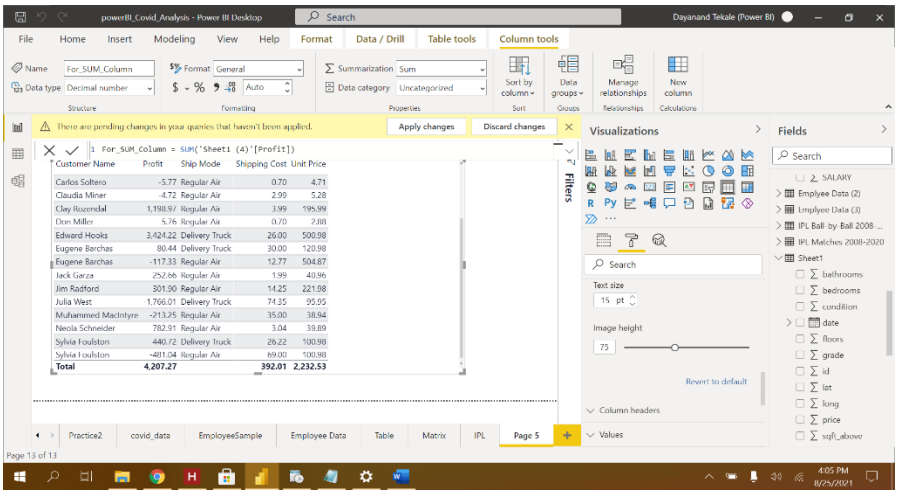


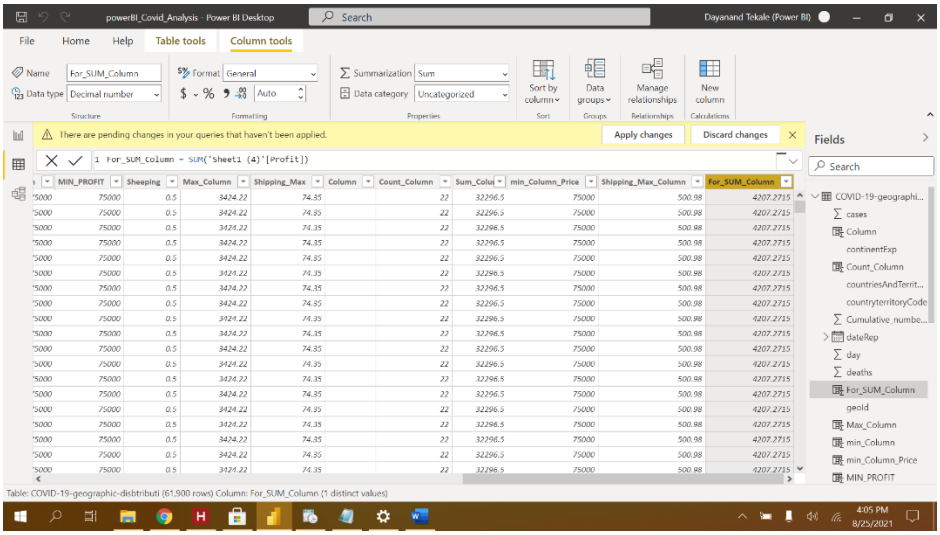
=>For Max Table added in sheet
=>Check the visualization Calculation Table here also values changed.



=>For SUM
=>Go to modelling
=>New Column







=>See and analyze the data columns
=>Here added
=>See the values changes as per formula
=>This is all about MIN, MAX, SUM.