Power Query

Used in Automation

Power Query is a data transformation and data preparation engine

Power Query includes many prebuilt transformation functions that can be used through the graphical interface of the Power Query Editor

Power Query is Used for Data Transformation, Data Preparation

Data Transformation means, after acquisition, we need to do some process or some kind of changes to removing the unwanted data etc

Data is being collected from various sources

Consider an example of a sales manager

And a Business Analyst

Suppose if a company is getting money from different kind of sources,

For eg:

Paypal

Gpay

PhonePay

Instamojo

Date, Time, Order, MailId, Phone Number, Cost, Expense etc

Problem:

Each and every Saturday's we want to present certain week's data

Like what are the sales, loss, profit, expense etc

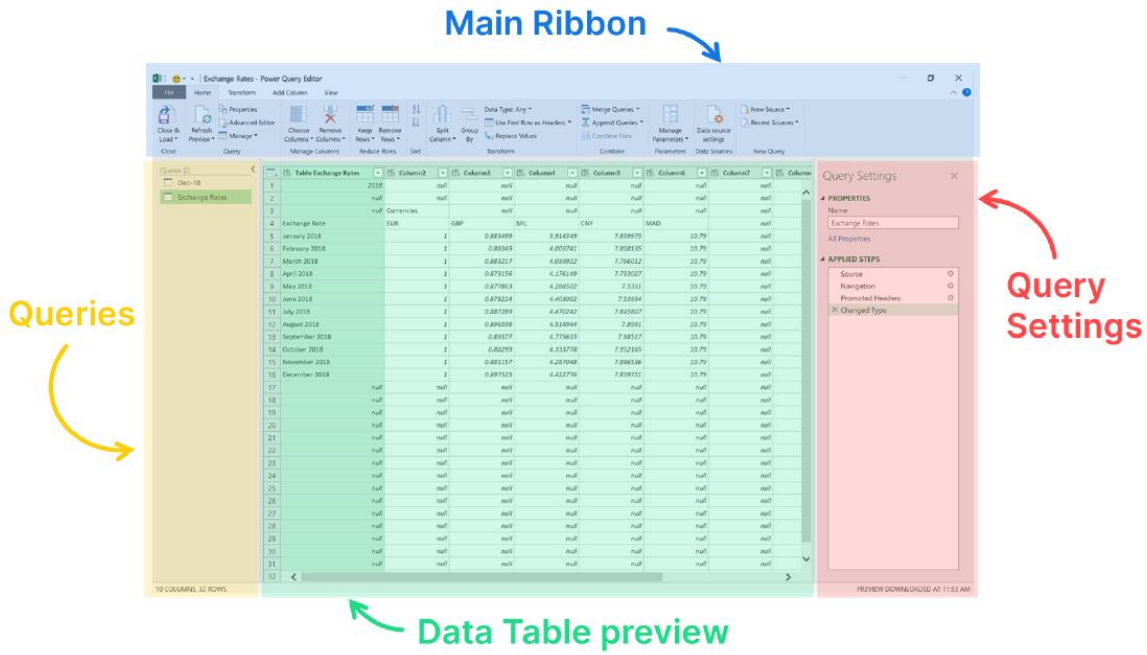
By using Power Query, Automating the tasks

Instead of doing it manually every time

By adding a new week, it will automatically generate the result

Usage of Power Query

Excel for Windows
Excel for Mac
Power BI
Power Apps
Power Automate
Azure Data Factory
SQL Server Integration Services
SQL Server Analysis Services

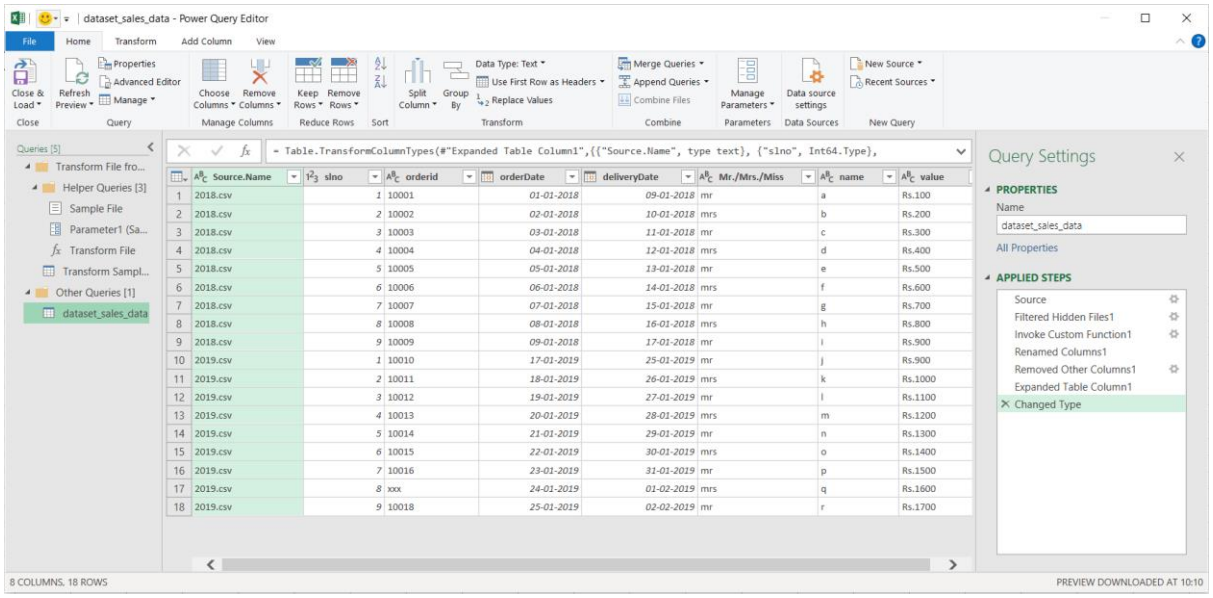


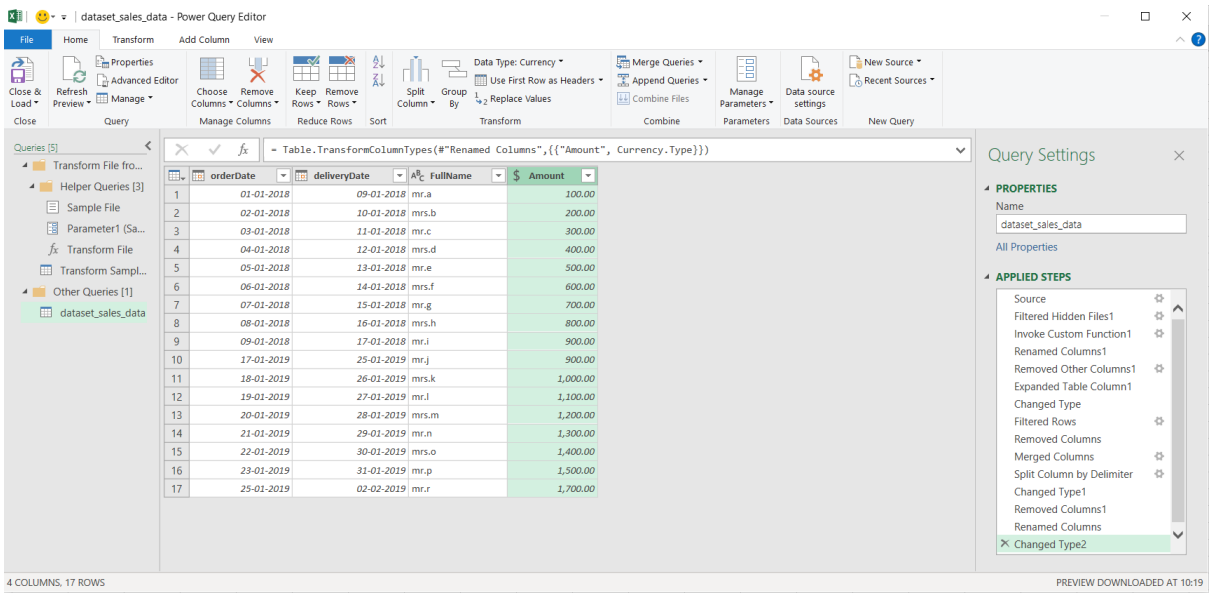
Elements:

Main ribbon - create queries from scratch

Queries - To keep track of all connections to data sources and streams

Data Table - preview To visualize your data result


dataset_sales_data - Power Query Editor
File
Home
Transform
Add Column
View
Close & Load
Refresh Preview
Properties
Advanced Editor
Manage
Choose Columns
Remove Columns
Keep Rows
Remove Rows
Split Column
Group By
Data Type: Text
Use First Row as Headers
Replace Values
Merge Queries
Append Queries
Combine Files
Manage Parameters
Data source settings
New Source
Recent Sources
Close
Query
Manage Columns
Reduce Rows
Sort
Transform
Combine
Parameters
Data Sources
New Query
Queries [5]
Transform File fro...
Helper Queries [3]
Sample File
Parameter1 (Sa...
Transform File
Transform Sampl...
Other Queries [1]
dataset_sales_data
= Table.TransformColumnTypes(#"Expanded Table Column1",{{"Source.Name", type text}, {"slno", Int64.Type},
Source.Name
slno
orderid
orderDate
deliveryDate
Mr./Mrs./Miss
name
value
1 2018.csv 1 10001 01-01-2018 09-01-2018 mr a Rs.100
2 2018.csv 2 10002 02-01-2018 10-01-2018 mrs b Rs.200
3 2018.csv 3 10003 03-01-2018 11-01-2018 mr c Rs.300
4 2018.csv 4 10004 04-01-2018 12-01-2018 mrs d Rs.400
5 2018.csv 5 10005 05-01-2018 13-01-2018 mr e Rs.500
6 2018.csv 6 10006 06-01-2018 14-01-2018 mrs f Rs.600
7 2018.csv 7 10007 07-01-2018 15-01-2018 mr g Rs.700
8 2018.csv 8 10008 08-01-2018 16-01-2018 mrs h Rs.800
9 2018.csv 9 10009 09-01-2018 17-01-2018 mr i Rs.900
10 2019.csv 1 10010 17-01-2019 25-01-2019 mr j Rs.900
11 2019.csv 2 10011 18-01-2019 26-01-2019 mrs k Rs.1000
12 2019.csv 3 10012 19-01-2019 27-01-2019 mr l Rs.1100
13 2019.csv 4 10013 20-01-2019 28-01-2019 mrs m Rs.1200
14 2019.csv 5 10014 21-01-2019 29-01-2019 mr n Rs.1300
15 2019.csv 6 10015 22-01-2019 30-01-2019 mrs o Rs.1400
16 2019.csv 7 10016 23-01-2019 31-01-2019 mr p Rs.1500
17 2019.csv 8 xxx 24-01-2019 01-02-2019 mrs q Rs.1600
18 2019.csv 9 10018 25-01-2019 02-02-2019 mr r Rs.1700
Query Settings
PROPERTIES
Name
dataset_sales_data
All Properties
APPLIED STEPS
Source
Filtered Hidden Files1
Invoke Custom Function1
Renamed Columns1
Removed Other Columns1
Expanded Table Column1
Changed Type
8 COLUMNS, 18 ROWS
PREVIEW DOWNLOADED AT 10:10


dataset_sales_data - Power Query Editor
File
Home
Transform
Add Column
View
Close & Load
Refresh Preview
Properties
Advanced Editor
Manage
Choose Columns
Remove Columns
Keep Rows
Remove Rows
Split Column
Group By
Data Type: Currency
Use First Row as Headers
Replace Values
Merge Queries
Append Queries
Combine Files
Manage Parameters
Data source settings
New Source
Recent Sources
Close
Query
Manage Columns
Reduce Rows
Sort
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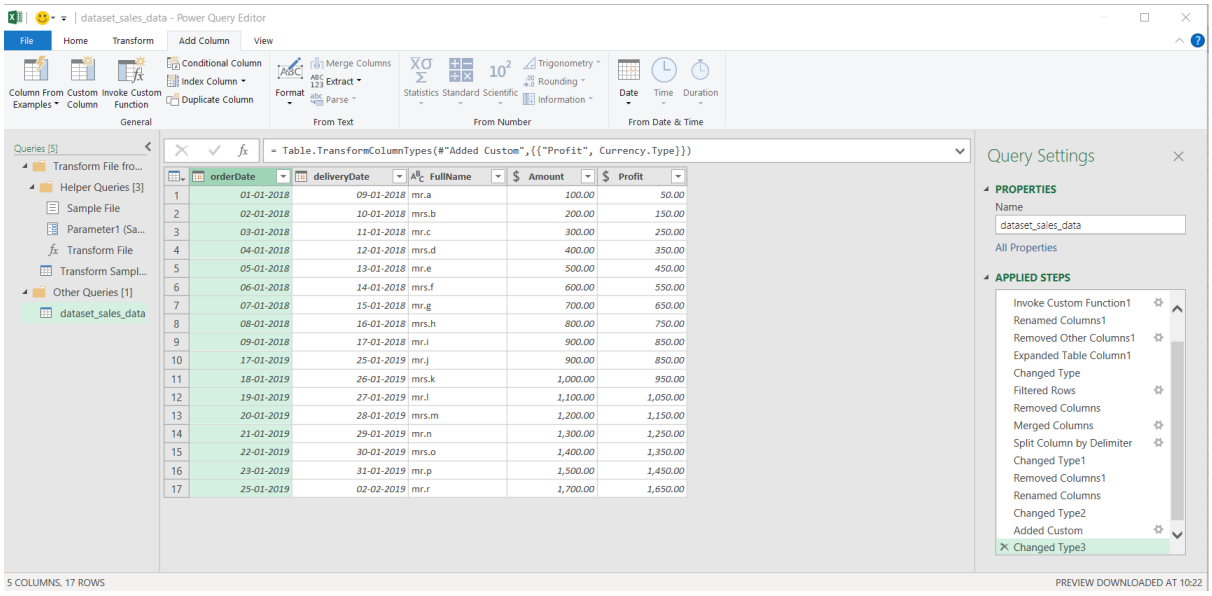
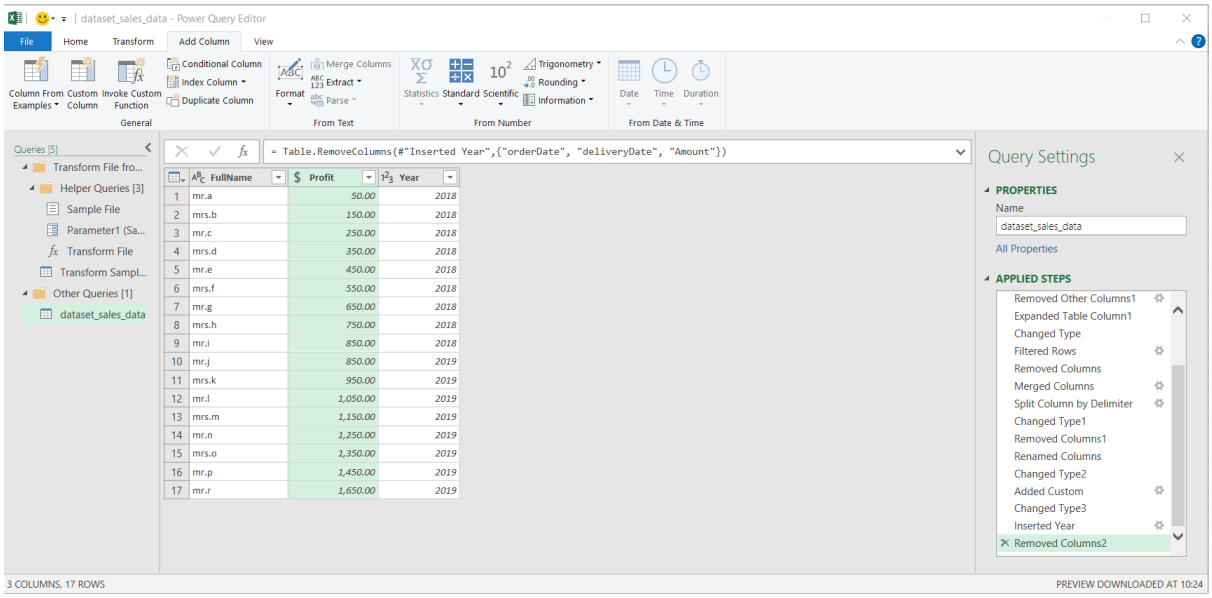
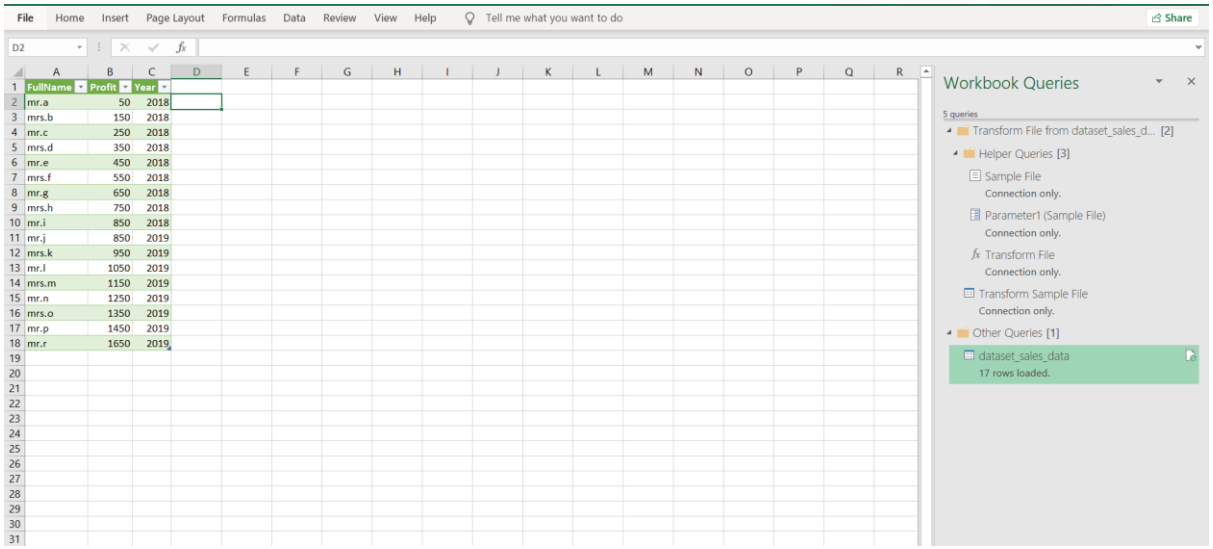
Data Sources
New Query
Queries [5]
Transform File fro...
Helper Queries [3]
Sample File
Parameter1 (Sa...
Transform File
Transform Sampl...
Other Queries [1]
dataset_sales_data
= Table.TransformColumnTypes(#"Renamed Columns",{{"Amount", Currency.Type}})
orderDate
deliveryDate
FullName
Amount
1 01-01-2018 09-01-2018 mr.a 100.00
2 02-01-2018 10-01-2018 mrs.b 200.00
3 03-01-2018 11-01-2018 mr.c 300.00
4 04-01-2018 12-01-2018 mrs.d 400.00
5 05-01-2018 13-01-2018 mr.e 500.00
6 06-01-2018 14-01-2018 mrs.f 600.00
7 07-01-2018 15-01-2018 mr.g 700.00
8 08-01-2018 16-01-2018 mrs.h 800.00
9 09-01-2018 17-01-2018 mr.i 900.00
10 17-01-2019 25-01-2019 mr.j 900.00
11 18-01-2019 26-01-2019 mrs.k 1,000.00
12 19-01-2019 27-01-2019 mr.l 1,100.00
13 20-01-2019 28-01-2019 mrs.m 1,200.00
14 21-01-2019 29-01-2019 mr.n 1,300.00
15 22-01-2019 30-01-2019 mrs.o 1,400.00
16 23-01-2019 31-01-2019 mr.p 1,500.00
17 25-01-2019 02-02-2019 mr.r 1,700.00
Query Settings
PROPERTIES
Name
dataset_sales_data
All Properties
APPLIED STEPS
Source
Filtered Hidden Files1
Invoke Custom Function1
Renamed Columns1
Removed Other Columns1
Expanded Table Column1
Changed Type
Filtered Rows
Removed Columns
Merged Columns
Split Column by Delimiter
Changed Type1
Removed Columns1
Renamed Columns
Changed Type2
4 COLUMNS, 17 ROWS
PREVIEW DOWNLOADED AT 10:19



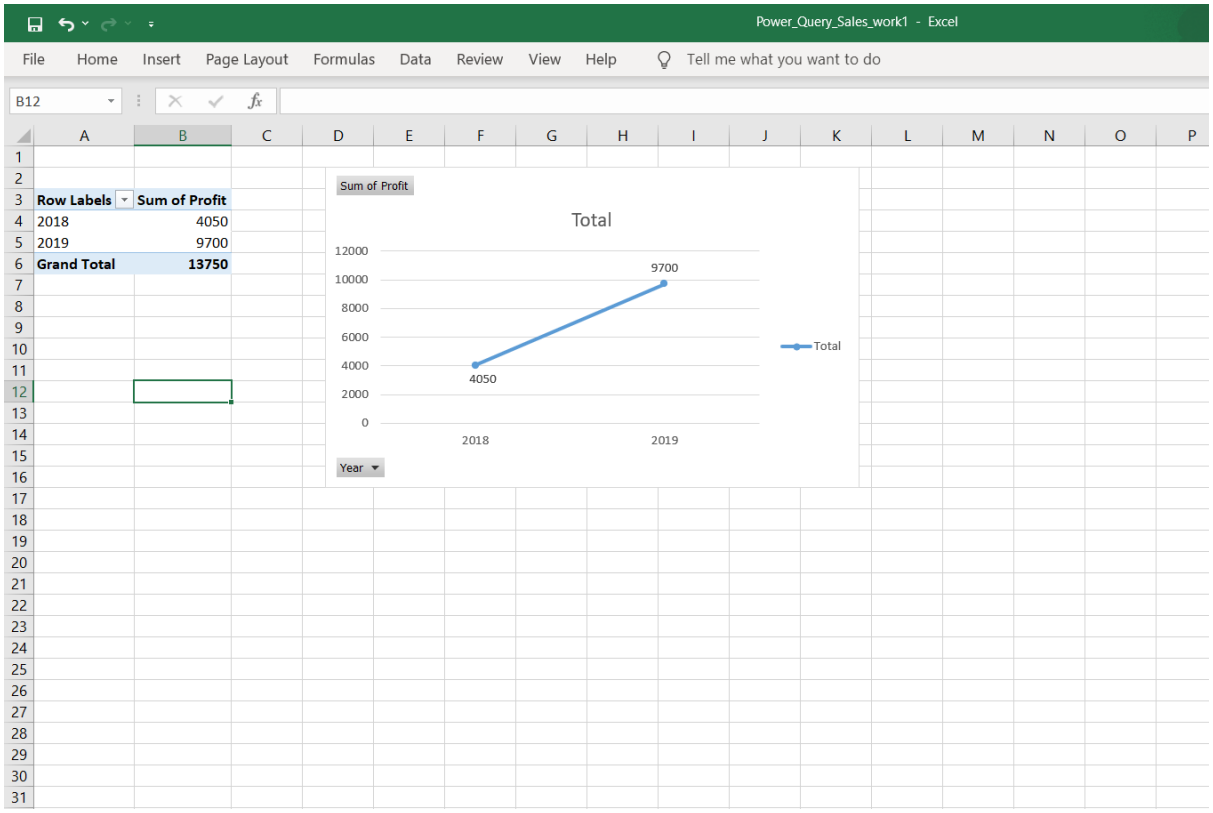
Profit Based on Year



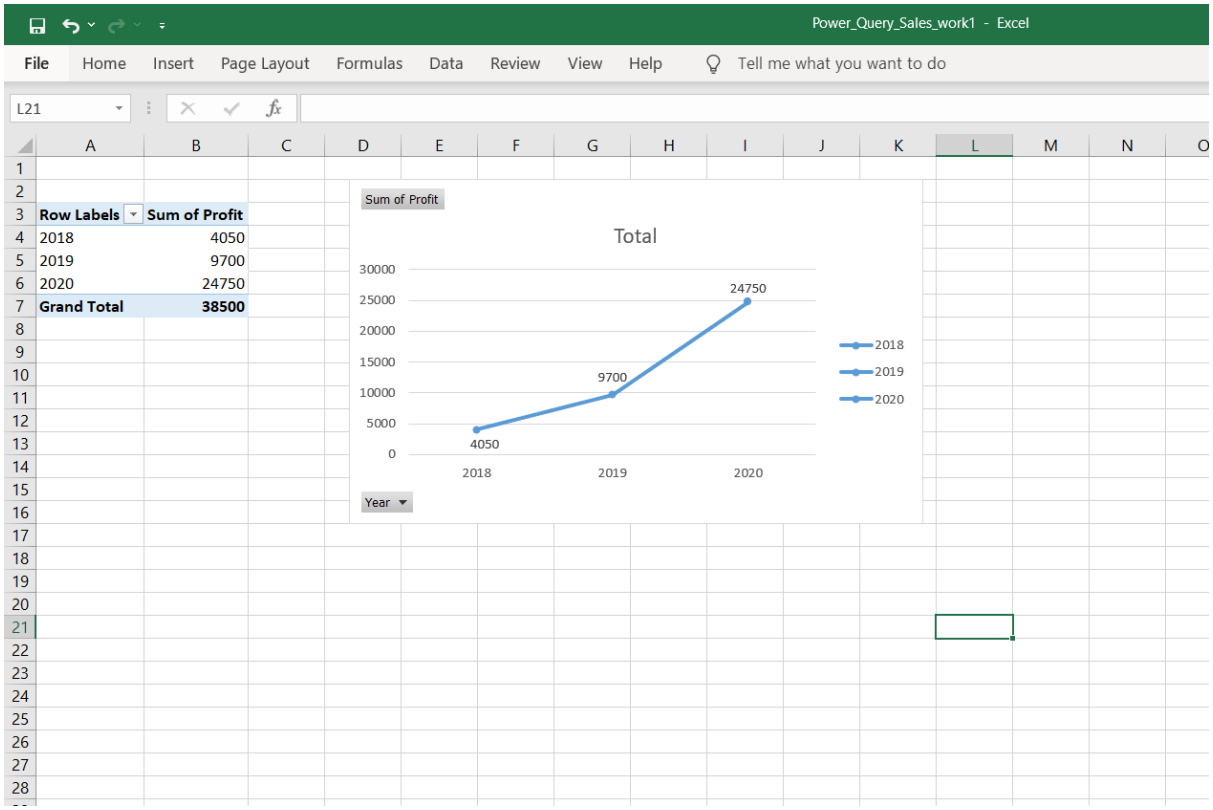
Now, Home -> Close and Load



FullName	Profit	Year
mr.a	50	2018
mrs.b	150	2018
mr.c	250	2018
mrs.d	350	2018
mr.e	450	2018
mrs.f	550	2018
mr.g	650	2018
mrs.h	750	2018
mr.i	850	2018
mr.j	850	2019
mrs.k	950	2019
mr.l	1050	2019
mrs.m	1150	2019
mr.n	1250	2019
mrs.o	1350	2019
mr.p	1450	2019
mr.r	1650	2019



Row Labels	Sum of Profit
2018	4050
2019	9700
Grand Total	**13750**



Time Management. It is important to Automate some tasks

Steps that I took

Open Power Query
For Excel >2016
For Excel 2010 & 2013

Load File Choose option from Ribbon, based on the File format

Transform/Edit Data Click Edit, to do transformation in data using Power query Editor

Once Finished Transformation, click
Home > Close & Load

Remove Rows
Based on Number
Remove empty rows

Remove Columns Empty Columns

Split Columns
Based on Delimiter
Based on Character count

Renaming Header

Unpivot Columns

Filter

Combine New source from folder all sheet name should be same

Replace

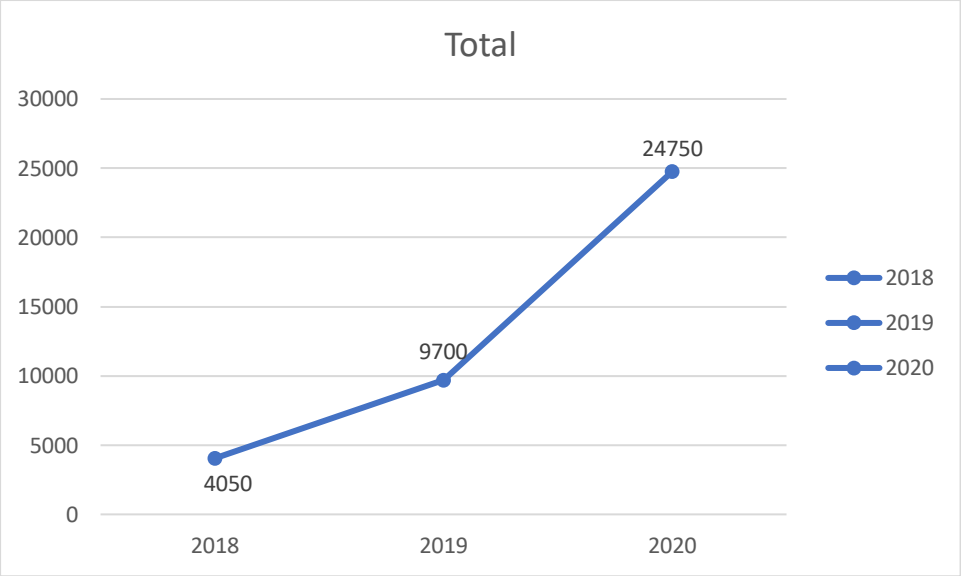
Merge Queries Forget about VLOOKUP

Create Columns Concatenate Right click 2 Columns and merge

Change Type

When You give new year report, and refresh, the result will be,

Row Labels	Sum of Profit
2018	4050
2019	9700
2020	24750
Grand Total	**38500**



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mrs.h	750	2018
mr.i	850	2018
mr.j	850	2019
mrs.k	950	2019
mr.l	1050	2019
mrs.m	1150	2019
mr.n	1250	2019
mrs.o	1350	2019
mr.p	1450	2019
mr.r	1650	2019
mr.s	1950	2020
mrs.t	2150	2020
mr.u	2350	2020
mrs.s	2550	2020
mr.t	2750	2020
mrs.u	2950	2020
mr.s	3150	2020
mrs.t	3350	2020
mr.u	3550	2020

Hence You can Automate like this.