



MICROSOFT POWER BI

Python scripting



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P19-0036

Step 1:

Download and install Power BI Desktop Application.

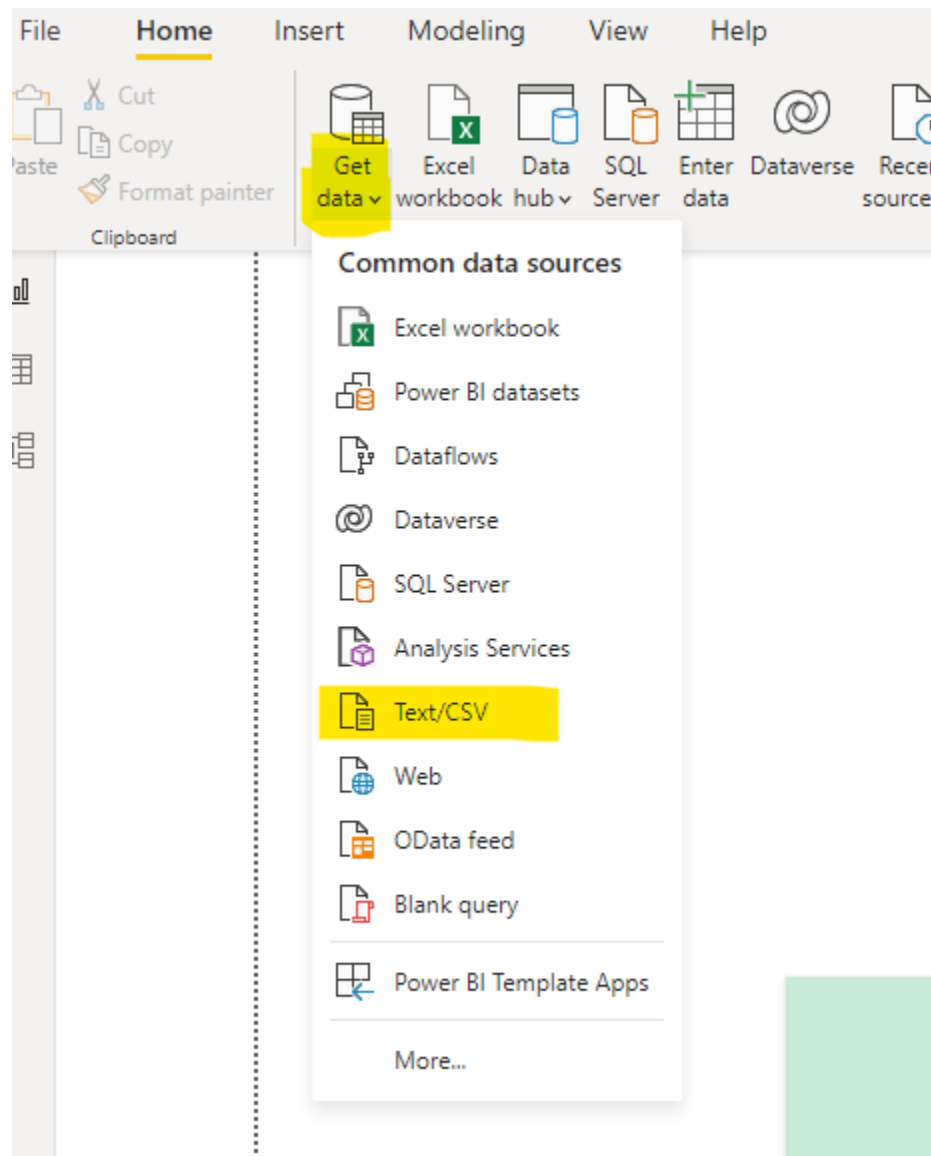
[Download Microsoft Power BI Desktop from Official Microsoft Download Center](#)

Step 2:

Download any CSV file.

Step 3:

Insert CSV file.



Step 4:

Load the data.

IMDB-Movie-Data.csv

File Origin

65001: Unicode (UTF-8)

Delimiter

Comma

Data Type Detection

Based on first 200 rows

Rank

Title

Genre

Description

Director

1	Guardians of the Galaxy	Action,Adventure,Sci-Fi	A group of intergalactic criminals are forced to work to...	James Gunn
2	Prometheus	Adventure,Mystery,Sci-Fi	Following clues to the origin of mankind, a team finds a...	Ridley Scott
3	Split	Horror,Thriller	Three girls are kidnapped by a man with a diagnosed 23...	M. Night Shyamal
4	Sing	Animation,Comedy,Family	In a city of humanoid animals, a hustling theater impres...	Christophe Lourde
5	Suicide Squad	Action,Adventure,Fantasy	A secret government agency recruits some of the most...	David Ayer
6	The Great Wall	Action,Adventure,Fantasy	European mercenaries searching for black powder beco...	Yimou Zhang
7	La La Land	Comedy,Drama,Music	A jazz pianist falls for an aspiring actress in Los Angeles.	Damien Chazelle
8	Mindhorn	Comedy	A has-been actor best known for playing the title chara...	Sean Foley
9	The Lost City of Z	Action,Adventure,Biography	A true-life drama, centering on British explorer Col. Per...	James Gray
10	Passengers	Adventure,Drama,Romance	A spacecraft traveling to a distant colony planet and tra...	Morten Tyldum
11	Fantastic Beasts and Where to Find Them	Adventure,Family,Fantasy	The adventures of writer Newt Scamander in New York'...	David Yates
12	Hidden Figures	Biography,Drama,History	The story of a team of female African-American mathe...	Theodore Melfi
13	Rogue One	Action,Adventure,Sci-Fi	The Rebel Alliance makes a risky move to steal the plan...	Gareth Edwards
14	Moana	Animation,Adventure,Comedy	In Ancient Polynesia, when a terrible curse incurred by...	Ron Clements
15	Colossal	Action,Comedy,Drama	Gloria is an out-of-work party girl forced to leave her lif...	Nacho Vigalondo
16	The Secret Life of Pets	Animation,Adventure,Comedy	The quiet life of a terrier named Max is upended when...	Chris Renaud
17	Hacksaw Ridge	Biography,Drama,History	WWII American Army Medic Desmond T. Doss, who ser...	Mel Gibson
18	Jason Bourne	Action,Thriller	The CIA's most dangerous former operative is drawn ou...	Paul Greengrass
19	Lion	Biography,Drama	A five-year-old Indian boy gets lost on the streets of Cal...	Garth Davis
20	Arrival	Drama,Mystery,Sci-Fi	When twelve mysterious spacecraft appear around the...	Denis Villeneuve

Extract Table Using Examples

Load

Transform Data

Cancel

Step 5:

From Visualization click PY

Visualizations

Build visual

Filters

Bar chart

Line chart

Area chart

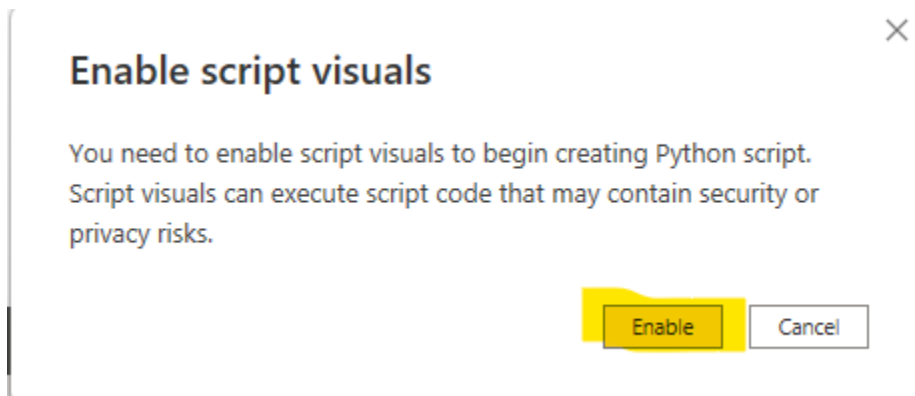
Scatter plot

Table

Py

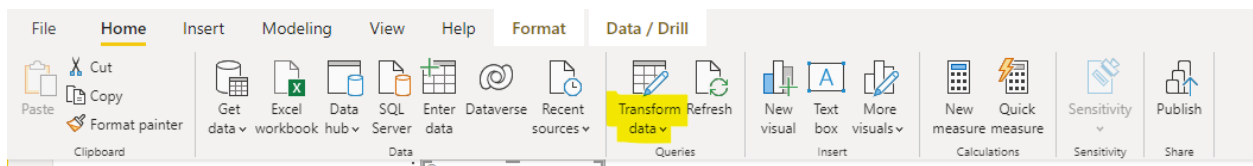
Step 6:

Enable script.



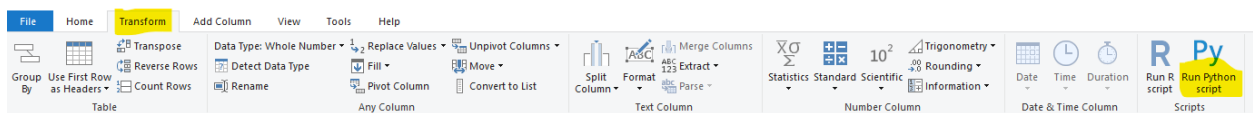
Step 7:

Now transform the data.



Step 8:

Run python script.



When running script first-time you will face few errors.

- 1) Go to file->options->python scripting and change path to where you have install your python folder.

Options

GLOBAL

Data Load
Power Query Editor
DirectQuery
R scripting
Python scripting
Security
Privacy
Regional Settings
Updates
Usage Data
Diagnostics
Preview features
Auto recovery
Report settings

CURRENT FILE

Data Load
Regional Settings
Privacy
Auto recovery

Python script options

To choose a home directory for Python, select a detected Python installation from the drop-down list, or select Other and browse to the location you want.

Detected Python home directories:

C:\Users\islwa\AppData\Local\Programs\Python\Python3... ▾

[How to install Python](#)

To choose which Python integrated development environment (IDE) you want Power BI Desktop to launch, select a detected IDE from the drop-down list, or select Other to browse to another IDE on your machine.

Detected Python IDEs:

Default OS program for .PY files ▾

[Learn more about Python IDEs](#)

[Change temporary storage location](#)

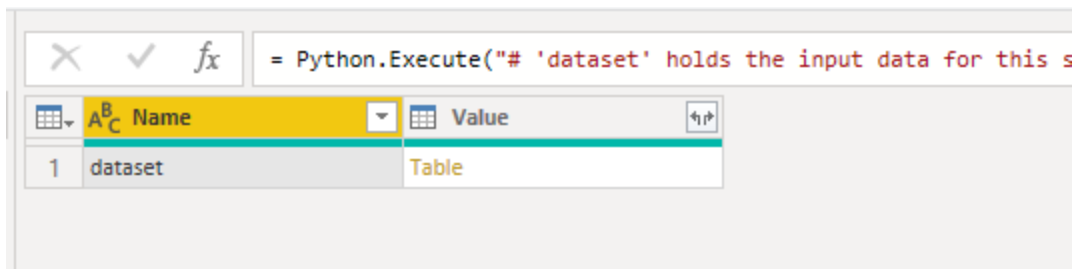
Note: Sometimes, Python custom visuals automatically install additional packages. For those to work, the temporary storage folder name must be written in Latin characters (letters in the English alphabet).

OK

Cancel

- 2) In your command prompt cd into your python folder and run following commands:
py -m pip install pandas
py -m pip install matplotlib

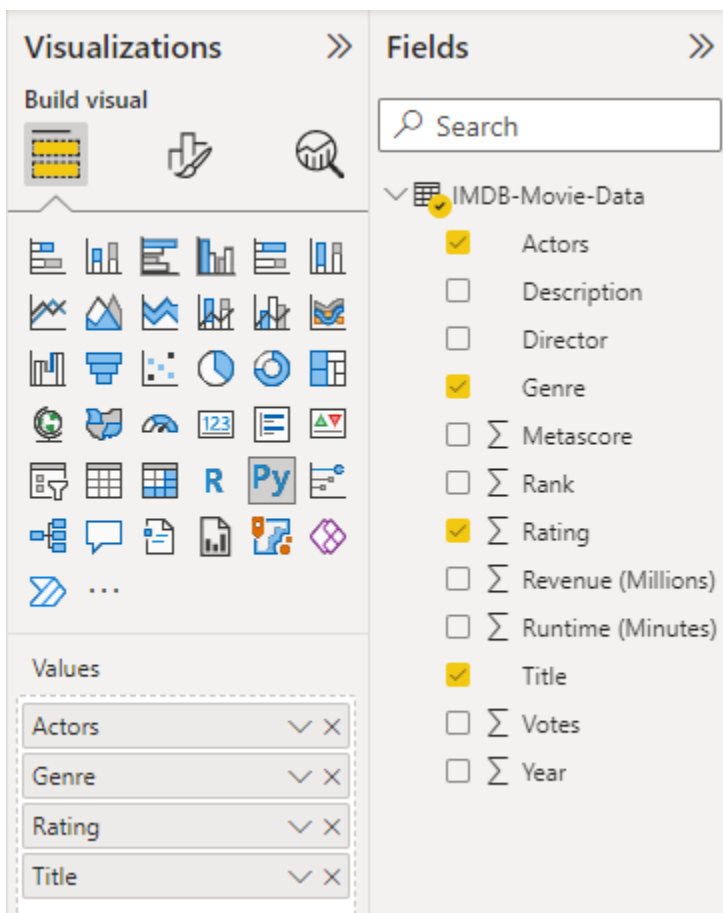
Now your script will run(hopefully).



After this close the Power query editor.

Step 9:

From Fields select the field you want to visualize.



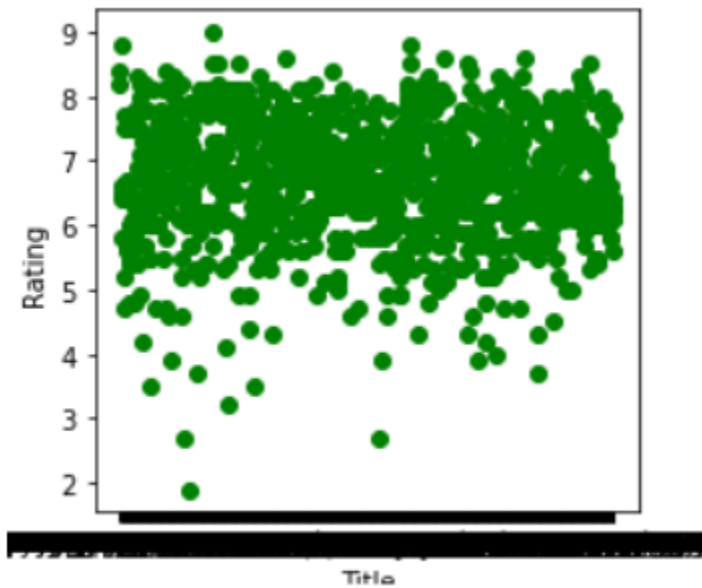
Step 10:

Write your script and run it.

```
Python script editor
⚠ Duplicate rows will be removed from the data.
1 # The following code to create a dataframe and remove duplicated rows is always executed and acts as a preamble for your script:
2
3 # dataset = pandas.DataFrame(Genre, Title, Rank)
4 # dataset = dataset.drop_duplicates()
5
6 # Paste or type your script code here:
7
8 import matplotlib.pyplot as plt
9 plt.plot(dataset.Title, dataset.Rating, 'go')
10 plt.xlabel('Title')
11 plt.ylabel('Rating')
12 plt.show()
13
```

Step 11:

Visualizing data.



We can use filters to visualize specific data.

Eg:

