ABOUT THE PROJECT:

Performed exploratory-data-analysis (EDA) for netflix using the following tools: MS-Excel, PowerBI and Python Programming.

I have done the following data analysis on different platforms:

1) Microsoft Excel:

- a) Frequency of each content-type (represented on a horizontal bar-graph)
- b) Yearly contribution of titles to the netflix content-library. (represented on a pie-chart and donut-chart)
 - c) Top Peforming Genres (represented on a vertical bar-graph)
 - d) All types of ratings (represented on a vertical bar-graph)
- e) Countries having the most contribution to the netflix content-library (represented on a vertical bar-graph).
- f) Monthly contribution of titles to the netflix content-library (represented on a vertical bargraph).

Added slicers based on follwing parameters:

- a) Months
- b) Genres
- c) Release Year
- d) Country
- e) Rating
- f) Content Type

2) Microsoft PowerBI:

(data cleaning done using Python in this notebook:

cleaning_data_through_python.ipynb)

Dashbaord Existing:

- a) Overview
- b) Genre & Rating Analysis
- c) Country Insights
- d) Trends

Inside Overview Dashbaord:

- a) How many movies and TV-Shows exist in our dataset (visualized using donut-chart)
- b) Total no. of contents (including both Movies and TV-Shows) added per year (visualized using Stacked column-chart)

Inside Genre & Rating Analysis Dashboard:

- c) Genres existing in our database (visualized using Tree-map)
- d) All types of Ratings along with the highest frequency (visualized using Clustered column-chart)
- e) Total no. of Genres in each content-type (i.e. Movies and TV-Shows) (visualized using Clustered column-chart)

Inside Country Insights Dashboard:

f) Total no. of Contents contributed by each country (Along with top-performing countries). (visualized using Filled-map)

Inside Trends Dashboard:

g) Yearly Trend of contents-being added to netflix content-library. (visualized using both Line-chart and Area chart)

cards for:

- i) Total Movies
- ii) Total TV-Shows
- iii) Total no. of Titles in Netflix (including both Movies and TV-Shows)
- iv) No. of Titles added per year

3) Python Programming AND ML EDA (i.e. Machine Learning EDA):

ML EDA PART:

i) Movie (and / or) TV-Show recommendation (using a GUI (Graphical-User-Interface)) [NOTE: but will recommend only upon existing entries in the dataset]

ii) Predicting whether any new entry is a Movie / TV Show.

(along with brief information about Netflix as a company)

- a) Frequency of each content-type (i.e No. of movies v/s No. of tv-shows) (represented on a horizontal bar-graph)
 - b) No. of releases in each year (represeted on a lineplot)
 - c) Top 5 Genres generating the most traffic (represented on a vertical bar-graph)
- d) Which ratings are most oftenly given to the netflix content-library? (represented on a vertical bar-graph)
 - e) Which countries have contributed to the netflix-library (using plotly)
 - f) Who are the top-10 actors by unique content-types?
- g) Correlation between content's release-year and year (in which it was added to netflix) by unique titles (using python pandas)
- h) Try to predict the content type (Movie vs. TV Show) using features like rating, release_year, and country (using Random Forest)
- i) Clustering titles by description (using K-Means and Principal Component-Analysis) to identify thematic groups
 - j) Listing down these on seperate word-clouds:
 - j.1) directors
 - j.2) actors
 - j.3) titles

4) SQL (Structured Query Language):

DATABASE-NAME: netflix_titles

TABLE-NAME: netflix_titles_details2

(used SQLAlchemy)

- a) Distinct Content-types in the netflix dataset
- b) Frequency of contents produced by each country
- c) Frequency of Rating-types
- d) Frequency of each unique genre-type
- e) Frequency of each unique actor (in the netflix dataset)
- f) Top 5 Years in which most content was added to netflix dataset.

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