

Exploratory Data Analysis Lab

Code: PMDS604P

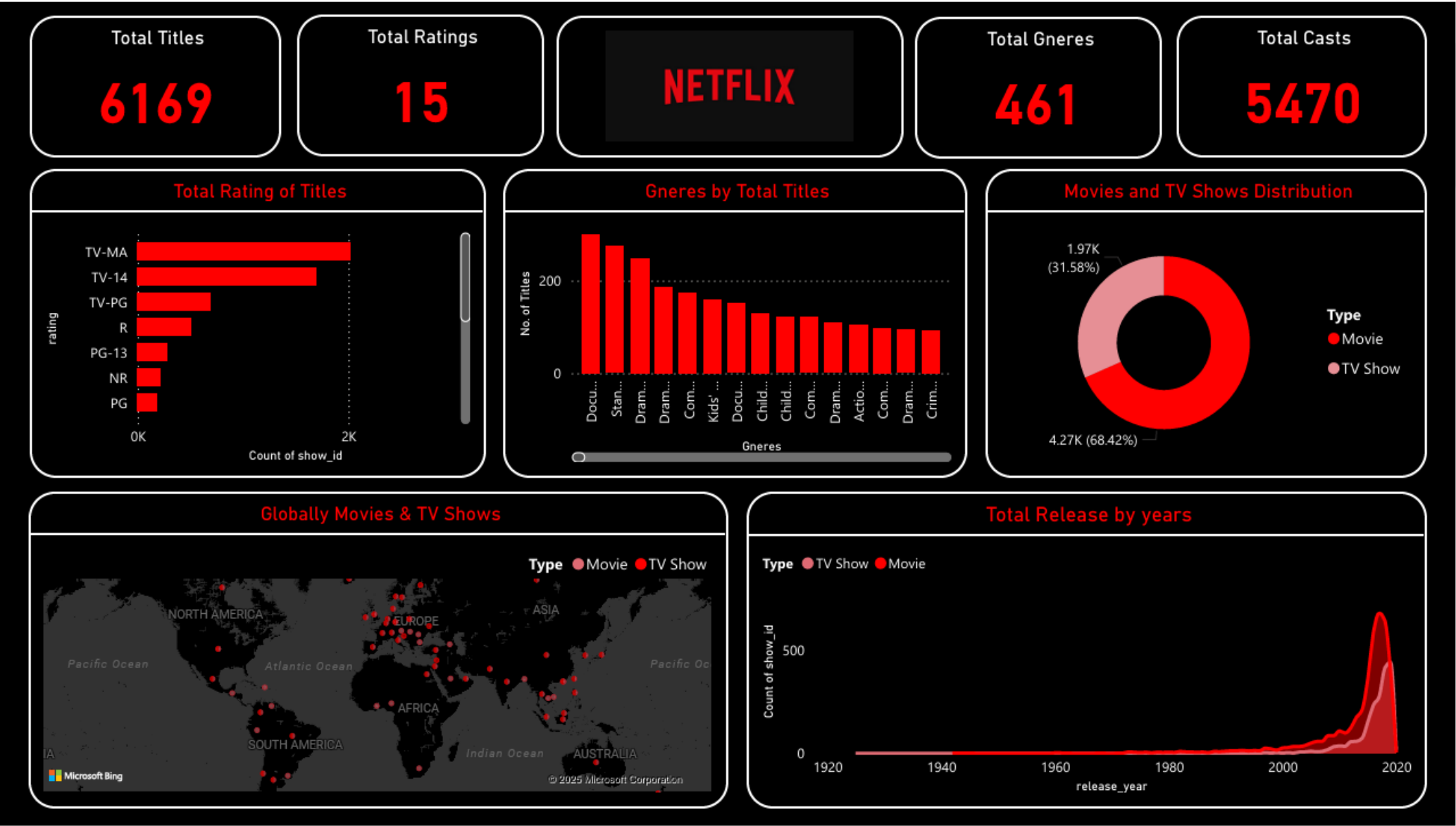
Digital Assignment 5

Name: Soumyadeep Ganguly

Reg. No.: 24MDT0082

Course: M.Sc. in Data Science

Power BI Dashboard: Netflix Data Analysis



Narration: Netflix Data Dashboard

This dashboard provides an insightful overview of Netflix's content library using a dark-themed design with red highlights to maintain visual consistency with Netflix's brand identity. The layout is structured into multiple sections to present key statistics, trends, and distributions effectively.

1. **Key Metrics Overview**

At the top, four prominent metric cards display the total number of **titles (6169)**, **ratings (15 unique ratings categories)**, **genres (461)**, and **cast members (5470)**. The large, bold red text ensures high visibility and immediate impact.

2. **Total Ratings of Titles**

A horizontal bar chart highlights the distribution of content across various rating categories. The **TV-MA** and **TV-14** ratings dominate, indicating a focus on mature audiences. The colour red draws attention to the most frequent ratings.

3. **Genres by Total Titles**

The bar chart on the right categorizes content by genres, showing the **dominance of documentaries (Docu.), stand-up comedy (Stan.), and drama**. The use of red bars against a black background enhances readability.

4. **Movies and TV Shows Distribution**

The donut chart in the middle-right visually represents the proportion of **movies (68.42%) vs. TV shows (31.58%)**, providing a quick glance at the content split.

5. **Global Distribution of Netflix Titles**

The world map marks locations of Netflix titles' production or popularity. Red dots on different continents visually convey the global reach of Netflix content.

6. **Total Release by Years**

The timeline chart at the bottom right captures the **growth in content releases over the decades**, with a notable surge in the 2010s and 2020s. The color gradient emphasizes the increasing density of releases.

Design Choices

- **Dark Theme:** Red and white elements stand out against the black background, ensuring clarity and reducing eye strain.
- **Consistent Use of Red:** Highlights important data points and aligns with Netflix's branding.
- **Chart Selection:** Bar charts, pie charts, maps, and line charts provide diverse perspectives for different insights.
- **Strategic Layout:** Key metrics are placed at the top, while trends and distributions are below for a logical data flow.

This dashboard effectively combines aesthetics with functionality to provide a compelling visual narrative of Netflix's content library.

Power BI Dashboard: Superstore Data Analysis

Superstore Data Visualization

Superstore data analysis in Power BI involves examining sales, profit, customer trends, and operational efficiency using data from a retail or e-commerce store. The dataset typically includes information about orders, customers, products, and shipments, allowing businesses to make data-driven decisions.

Total Sales

2.30M

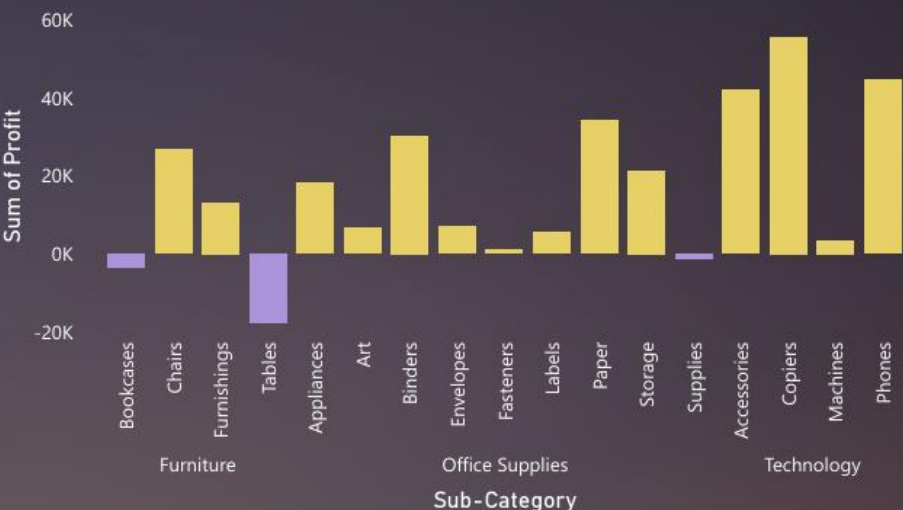
Total Profit

0.29M

Total Regions

4

Sum of Profit by Category and Sub-Category

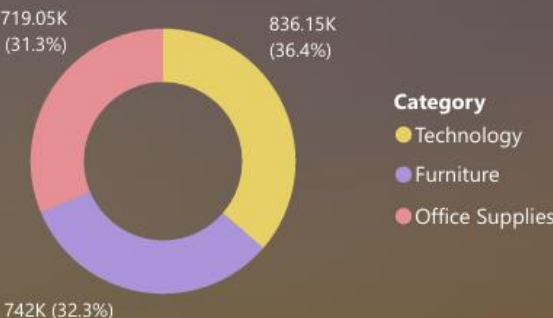


Sales and Sales PY by Start of month

● Sales ● Sales PY



Sum of Sales by Category



Global Report

Region ● Central ● East ● South ● West



Narration: Superstore Data Dashboard

This **Superstore Data Visualization Dashboard** provides an analytical view of sales, profit, and regional performance for a retail or e-commerce store. The dashboard effectively utilizes a **gradient background with soft pastel tones** to create a visually appealing and modern design.

Key Metrics Overview (Top Section)

At the top, three key performance indicators (KPIs) are prominently displayed:

- **Total Sales (2.30M)** – The overall revenue generated.
- **Total Profit (0.29M)** – The net earnings after expenses.
- **Total Regions (4)** – The number of distinct geographic regions analysed.

These high-level figures are displayed using **large, bold typography**, making them instantly recognizable.

Sales Trends (Bottom Left Section)

A **line chart** titled *Sales and Sales PY by Start of Month* visualizes the sales trend over time.

- The **yellow line represents actual sales**, while the **purple line represents prior year (PY) sales** for comparison.
- The pattern shows a general upward trend, indicating **growth over the years from 2018 to 2021**.

This visualization allows businesses to assess seasonal trends and year-over-year improvements.

Category Sales Breakdown (Bottom Middle Section)

A **pie chart** displays the proportion of sales across three major categories:

- **Technology (36.4%)**
- **Office Supplies (32.3%)**
- **Furniture (31.3%)**

The color-coding ensures clarity, making it easy to identify which category contributes the most to total sales.

Profitability by Category & Sub-Category (Top Right Section)

A **bar chart** titled *Sum of Profit by Category and Sub-Category* provides deeper insights into profitability:

- **Yellow bars represent profitable sub-categories**, such as **Phones, Machines, and Chairs**.
- **Purple bars indicate losses**, with **Tables showing negative profit**.
- This visualization helps decision-makers identify high-margin and loss-making products.

Regional Sales Performance (Bottom Right Section)

The **Global Report map** color-codes the four regions (**Central, East, South, and West**) to show geographic distribution. This helps businesses understand **regional sales performance and market potential** across different U.S. regions.

Design Choices

- **Soft Gradient Background:** Creates a visually engaging and professional look.
- **Consistent Colour Coding:** Yellow, purple, and red distinguish key elements across different charts.
- **Balanced Layout:** KPIs at the top for quick insights, with detailed breakdowns below.
- **Combination of Charts:** Line, pie, and bar charts provide a **multi-dimensional analysis** of sales and profits.

Overall, this dashboard effectively **summarizes retail data**, enabling data-driven decision-making in business operations.