

(Bachelor of Computer Application)

**A Project Report on
Amazon Prime Dashboard
And Mobile view
Using Microsoft Power BI**

Submitted by:

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Abstract of the Project

The proliferation of streaming services has led to an immense amount of data generated by platforms like Amazon Prime. Analyzing this data is crucial for understanding user behavior, optimizing content delivery, and enhancing the overall user experience. This project focuses on the development of a comprehensive Amazon Prime dashboard using Microsoft Power BI, designed to visualize key metrics and trends associated with user subscriptions.

The dashboard provides insights into various aspects of Amazon Prime base, including demographic distributions, subscription plan preferences, regional performance, and user engagement patterns. The visualizations enable stakeholders to monitor subscription growth, identify churn rates, and forecast future trends. This project involved data collection, data cleaning, and the use of Power BI's data modeling and visualization capabilities to create interactive reports.

The resulting dashboard offers a user-friendly interface, allowing Amazon Prime executives and analysts to make data-driven decisions with greater accuracy and efficiency. By leveraging Power BI, the project demonstrates the potential for business intelligence tools to transform raw data into actionable insights, ultimately contributing to improved customer retention and revenue growth for Amazon Prime.

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1. Introduction

a. About the project idea:

This project focuses on developing a Amazon Prime dashboard using Power BI to visualize key metrics like subscriber growth, demographics, and engagement. The dashboard will help Netflix's management make informed decisions by providing insights into trends, churn patterns, and regional performance, ultimately supporting data-driven strategies for optimizing customer retention and revenue

b. About tools in use:

The project uses **Power BI** to create a dynamic and interactive dashboard, with data cleaning and preparation handled through **Power Query**. These tools together enable effective visualization and analysis of Amazon Primedata, providing clear insights for decisionmaking

Resources Required:

Amazon Prime order dataset

Power bi

Access to computational resources for model training (e.g., CPU/GPU)

2. Purpose/Scope/Objective of the Analysis

Purpose: To develop an interactive Power BI dashboard that visualizes Amazon Prime data, providing actionable insights into subscriber growth, demographics, and engagement patterns.

Scope: The project involves collecting and integrating data related to subscription trends, demographic information, plan preferences, and regional performance, and then creating visualizations to present this data effectively.

Objectives:

- Design and implement interactive visualizations to track subscription growth and demographic trends.
- Analyze subscriber preferences for different plans and assess regional performance variations.
- Identify and understand patterns in user engagement and churn rates.
- Deliver insights that support strategic decision-making and improve Amazon Prime management.

3. Requirements for the Project

a. Hardware used:

While the hardware requirements are not overly demanding, a computer with sufficient processing power and RAM (depending on dataset size) will ensure smooth workflow. Processor: Intel core i5

RAM: 12 GB Storage

: 512 GB SSD

b. **Software used:** Microsoft Power BI is a business intelligence tool that allows you to visualize and analyze data.

c. Technology used:

Access to the Amazon Primeorder dataset (ideally in a well-structured format like CSV).Data science methodologies, including data preprocessing, exploratory data analysis (EDA).

4. Methodology

a. Introduction:

The methodology outlines the approach for developing a Amazon Prime dashboard using Power BI. It details the steps taken from data collection to visualization and analysis, ensuring a structured process for delivering actionable insights.

b. General Description:

The process begins with gathering relevant data on Amazon Prime, including growth metrics, demographic information, plan details, and regional performance. Data is then cleaned and transformed using Power Query. The cleaned data is imported into Power BI, where interactive dashboards and reports are created to visualize key metrics and trends.

c. Specific Requirements, Functions, and Formulas:

1.) Data Sources: Subscription records, demographic data, plan details, regional statistics. 2.)

Functions: Use Power Query for data cleaning, DAX (Data Analysis Expressions) for calculations and aggregations.

d. Analysis Results:

The analysis provides insights into subscriber growth patterns, demographic distribution, plan popularity, and regional performance. Key findings include trends in subscription changes, demographic preferences, and regions with the highest engagement or churn.

5. Importing Data, Data Cleaning and Transformation

Amazon Prime Dataset.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

show_id	type	title	director	cast	country
s1	Movie	The Grand Seduction	Don McKellar	Brendan Gleeson, Taylor Kitsch, Gordon Pinsent	Canada
s2	Movie	Take Care Good Night	Girish Joshi	Mahesh Manjrekar, Abhay Mahajan, Sachin Khedekar	India
s3	Movie	Secrets of Deception	Josh Webber	Tom Sizemore, Lorenzo Lamas, Robert LaSardo, Richard...	United State
s4	Movie	Pink: Staying True	Sonia Anderson	Interviews with: Pink, Adele, Beyoncé, Britney Spears, C...	United State
s5	Movie	Monster Maker	Giles Foster	Harry Dean Stanton, Kieran O'Brien, George Costigan, A...	United Kingd
s6	Movie	Living With Dinosaurs	Paul Weiland	Gregory Chisholm, Juliet Stevenson, Brian Henson, Mic...	United Kingd
s7	Movie	Hired Gun	Fran Strine	Alice Cooper, Liberty DeVitto, Ray Parker Jr., David Fost...	United State
s8	Movie	Grease Live!	Thomas Kail, Alex Rudzinski	Julianne Hough, Aaron Tveit, Vanessa Hudgens, Keke Pa...	United State
s9	Movie	Global Meltdown	Daniel Gilboy	Michael Paré, Leanne Khoh Young, Patrick J. MacEachern	Canada
s10	Movie	David's Mother	Robert Allan Ackerman	Kirstie Alley, Sam Waterston, Stockard Channing	United State
s11	Movie	Forest Fairies	Justin G. Dyck	Joey King, Jack Kilmer, Andrea Savage, Paul Scheer, Jun...	Canada
s12	Movie	Take Care	Liz Tuccillo	Leslie Bibb, Kevin Curtis, Nadia Dajani	United State
s13	Movie	The Night Eats The World	Dominique Rocher	Anders Danielsen Lie, Golshifteh Farahani, Denis Lavant...	France
s14	Movie	Resiliencia	Jep Barcelona	Rafinha Alcantara, Marc-André Ter Stegen, Sergi Robert...	Spain
s15	Movie	Elon Musk: The Real Life Iron Man	Sonia Anderson	Elon Musk, Per Wimmer, Julie Anderson-Ankenbrandt...	United Kingd
s16	Movie	Summer '03	Becca Gleason	Joey King, Jack Kilmer, Andrea Savage, Paul Scheer, Jun...	United State
s17	Movie	Zoomies	Glenn Miller	Marcus Anderson, Kaiwi Lyman, Andrew Asper	Canada
s18	TV Show	Zoo Babies	Narrator - Gillian Barlett		
s19	TV Show	Zoe Coombs Marr: Bossy Bottom	Zoe Coombs Marr		
s20	Movie	Zoe	Drake Doremus	Ewan McGregor, Léa Seydoux, Theo James, Miranda OT...	

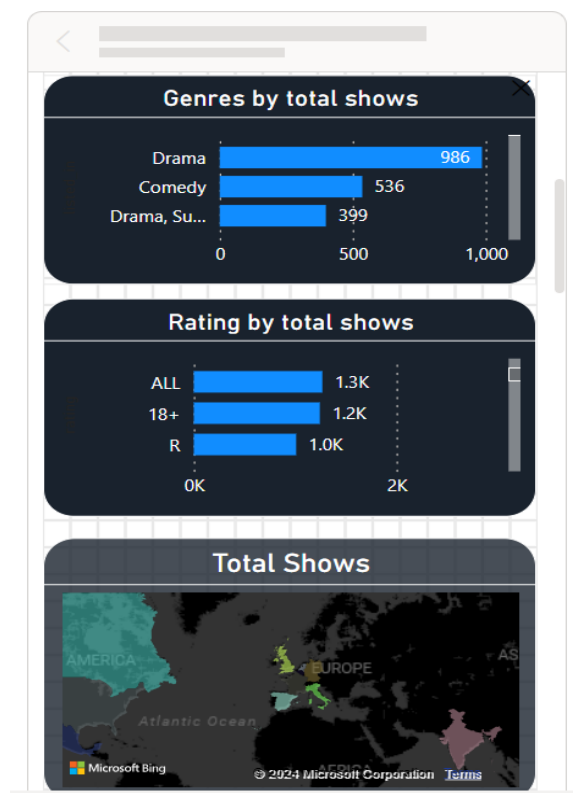
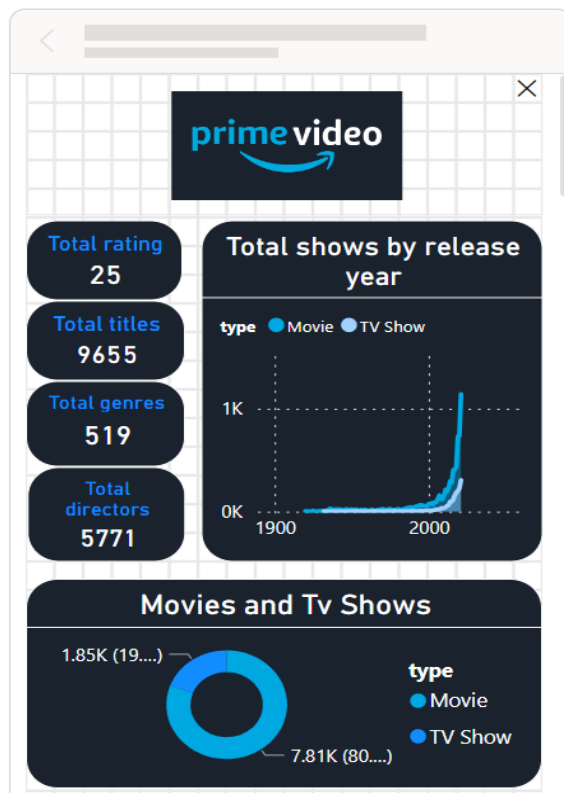
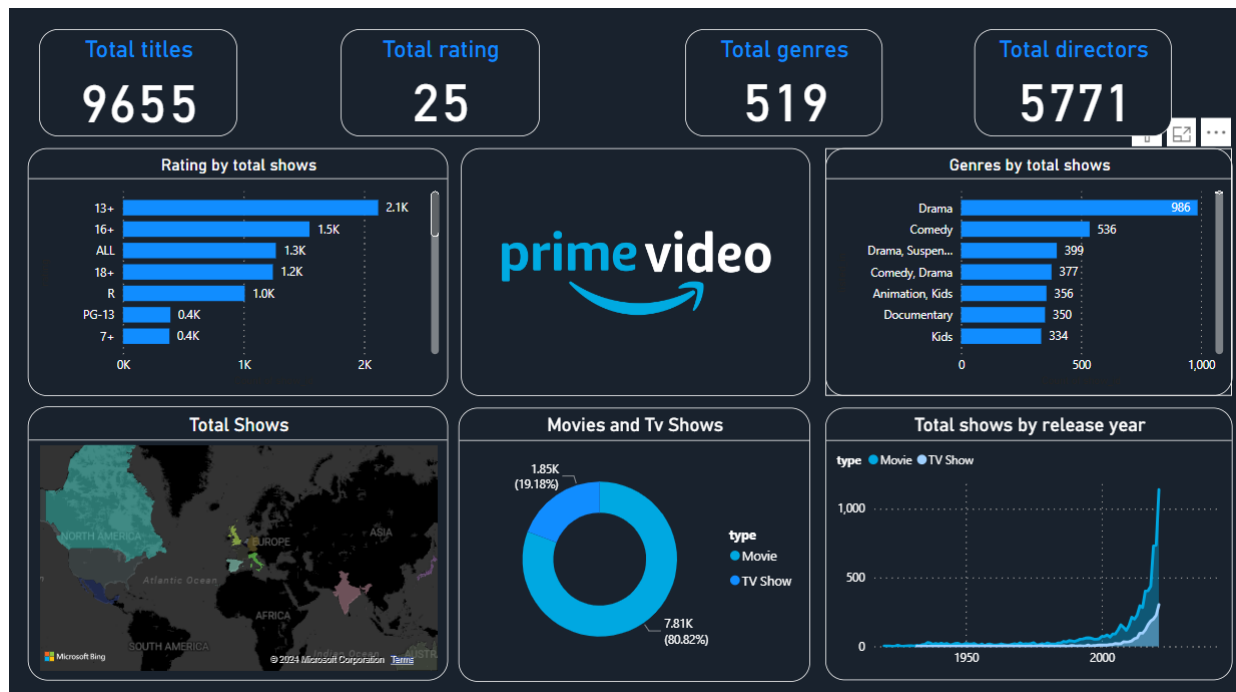
Extract Table Using Examples | Load | Transform Data | Cancel

Amazon Prime Dataset

show_id	type	title	director	cast
s1	Movie	The Grand Seduction	Don McKellar	Brendan Gleeson, Taylor Kitsch, Gor
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s20	Movie	Zoe	Drake Doremus	Ewan McGregor, Léa Seydoux, Theo
s21	TV Show	Zoomies		
s22	TV Show	Zo Zo Zombies: Mini-Series		Alex Cazares, Ben Diskin, Cristina Ve
s23	Movie	Zis Boom Bah	William Nigh	Grace Hayes, Mary Healy
s24	TV Show	ZeroZeroZero		ANDREA RISEBOROUGH, HAROLD TI
s25	Movie	Zandalee	Sam Pillsbury	Nicolas Cage, Judge Reinhold, Erika
s26	Movie	Zambez: Force of Life	Dr. Rudolf Lammers	
s27	TV Show	Zahara: The Return		Natasha Heschille, Curtis Morgan, I

Query Settings: Properties (Name: Amazon Prime Dataset), Applied Steps (Source, Promoted Headers, Changed Type, Removed Columns)

6. Dashboard Visualization and Mobile View



7. Future Scope of Project:

The future scope of this project includes expanding the dashboard's capabilities by integrating additional data sources, such as user behavior analytics, content preferences, and social media sentiment analysis. Advanced predictive analytics and machine learning models can be incorporated to forecast subscriber trends, identify potential churn risks, and suggest personalized content to retain users. Additionally, the dashboard could be enhanced with realtime data streaming to provide up-to-date insights. Extending the dashboard's accessibility to mobile platforms and integrating it with other business intelligence tools will further improve its usability and impact for Amazon Prime decision-makers.

8. Conclusion:

The Amazon Prime dashboard developed using Power BI effectively transforms raw data into actionable insights, enabling Netflix to better understand its subscriber base. By visualizing key metrics such as growth trends, demographic breakdowns, plan preferences, and regional performance, the dashboard supports data-driven decision-making that can enhance customer retention and optimize revenue strategies. The project demonstrates the power of business intelligence tools in turning complex data into clear, interactive visualizations, ultimately contributing to more informed and strategic management of Amazon Prime services.

9. Bibliography :

For datasets: <https://www.kaggle.com/datasets/shivamb/amazon-prime-movies-and-tv-shows>

Other references:

https://en.m.wikipedia.org/wiki/Data_science