

Strategic Content Insights for Netflix: Genre popularity, regional trends and Audience Segmentation

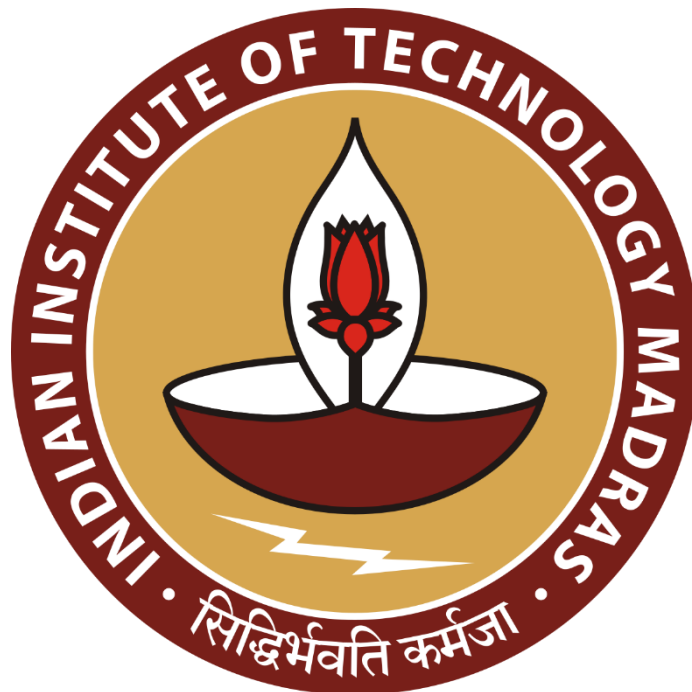
A Proposal report for the BDM capstone Project

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Declaration Statement

I hereby declare that the project titled **“Strategic Content Insights for Netflix: Genre popularity, regional trends and Audience Segmentation”** has been conducted using **secondary data**, specifically obtained from **publicly available sources on Kaggle**.

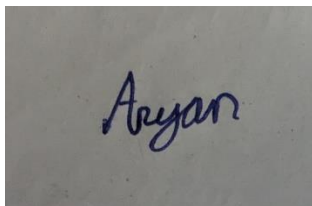
While the dataset used was externally sourced, **I affirm that all aspects of data preprocessing, analytical methodology, visualization, interpretation, and business recommendations presented in this report are entirely my original work**. No portion of the analysis has been copied or derived from any pre-existing research, academic submission, or published material.

The insights and conclusions have been developed independently, applying techniques and concepts learned during the **Business Data Management (BDM)** course. All procedures and analytical approaches used throughout this project have been clearly documented and justified in the report to ensure transparency and academic rigor.

I understand the importance of academic honesty and integrity and confirm that this work is the result of my individual effort. I am fully aware that plagiarism or misrepresentation of work may lead to disciplinary actions as per the institution’s policies.

Additionally, I acknowledge that all findings and recommendations provided in this report are specific to the scope of this project and are not endorsed by **IIT Madras** for any broader use. This project is intended solely for academic purposes.

Signature of Candidate:

A rectangular box containing a handwritten signature in blue ink that reads "Aryan".

Name: Aryan

Date: 13/10/2025

1 Executive Summary and Title

Netflix is one of the world's leading streaming platforms which offers a diverse range of movies and TV shows across multiple countries. Operating within a business-to-consumer (B2C) framework, Netflix delivers its services directly to individual subscribers. The company continuously optimizes production of content and distribution strategies to attract and retain their subscribers.

However, they face some challenges when it comes to popularity of content over regions, countries, genres, age group and difference in audience maturity ratings which adds complexity to strategic decision-making. Certain countries are underrepresented in the content catalog, which limits regional expansion opportunities. Differences in audience maturity ratings further complicate the ability to target age-appropriate content effectively. These issues make it difficult to allocate production and acquisition resources effectively and to target audiences over various regions accurately.

The Business Data Management (BDM) Capstone Project aims to analyze Netflix's content library using publicly available datasets. By examining trends in genre popularity, regional content distribution, maturity ratings, and audience age groups, **the project will provide insights into Netflix's content strategy and decision making.** Exploratory data analysis, statistical methods, and visualization techniques will be performed **to identify patterns and trends in content consumption across different countries and people of different age groups.**

2 Organization Background

Netflix is a for-profit corporation and currently one of the leading global streaming platforms. The company was founded in 1997 and it started as a DVD rental service which came through mail. In 2007 Netflix transitioned to streaming and offering TV shows and Movies to their subscribers directly over the internet. This led to its massive expansion at an international level and is now serving over 200 million subscribers worldwide. Netflix now also produces its own original content under the banner "Netflix Originals" alongside licensed content from studios around the world. Major credit for its success goes to its recommendation system and its data-driven approach to content strategy which enables personalized experiences for viewers. Netflix operates in the B2C segment, providing entertainment services directly to consumers. The company continuously optimizes its content production and distribution strategies to attract and retain subscribers in an increasingly competitive streaming landscape. It also invests in analyzing viewer trends and regional preferences to guide future content decisions.

3 Problem Statement

3.1 Analyze Genre Popularity Across Regions

Identifying the most popular genres in different countries and understand regional content preferences by analyzing the dataset.

3.2 Study Regional Content Distribution

Identifying the countries that contribute most content and the ones which are underrepresented to support regional expansion.

3.3 Examine Ratings and Audience Segmentation

Identifying the dominant viewer segments based on audience age and maturity ratings and guide content targeting and production decisions.

4 Background of the Problem

4.1 Major Cause of the Problem

The main cause of the problem lies in the vast nature of audience preference over the regions. Netflix serves to a large number of countries with audience from different maturity ratings and age groups. Understanding which genres perform well in each region or age group becomes mandatory for delivering a personalized experience for the user. Inconsistent regional representation and varying maturity ratings make it difficult to maintain a balanced and inclusive content strategy.

4.2 Internal Problem

Internally, Netflix faces the challenge of managing and analyzing huge amounts of content data to identify patterns within it. The lack of individual regional analysis and taking global averages impacts the decision-making. Moreover, the trends keep changing overtime. This can lead to overproduction of a certain genre and underrepresentation of another genre, ultimately impacting viewer engagement and satisfaction.

4.3 External Problems

Netflix faces high competition in the streaming market with strong rivals such as Amazon Prime and Disney+, and other regional platforms. The everchanging viewer taste, cultural diversity and changing content regulations across countries contribute to the external problems for Netflix. These make it crucial for Netflix to refine content strategy based on data-driven insights and strengthen regional representation and audience targeting.

5 Problem Solving Approach

5.1 Data Exploration and Cleaning

The first step of the project involves exploring and cleaning the Netflix Movies and TV Shows dataset. The data will be checked for missing values, duplicates and inconsistency in country names, genres, and maturity ratings. Columns that do not add analytical value will be removed to simplify the dataset and improve processing efficiency. Using excel and Python (Pandas and NumPy) we will clean and filter data. The data will be grouped on the basis of region and age gap to identify data gaps and ensure accuracy. Descriptive statistics and Pivot tables will be used for understanding variable distributions.

Moreover, outliers will be detected and removed and the dataset will be normalized wherever necessary to ensure the consistency across all the variables. This will help in reducing noise and enhancing accuracy of analysis.

5.2 Descriptive and Comparative Analysis

Descriptive analysis will be used to examine overall patterns of genre popularity, regional distribution, and maturity classifications. The goal is to gain an overall understanding of which types of shows or movies dominate the Netflix catalog and how they vary across different regions and audiences. Comparative analysis will focus on which genres are preferred over the audience grouped by region and age-groups. Visualization will be performed by pivot tables in excel and matplotlib and seaborn libraries in Python.

5.3 Correlation and Trend Analysis

The different relationships between variables will be identified using Seaborn correlation heatmaps and trend charts in Python. These visual tools will help in detecting both strong and weak correlations, guiding further exploration into the factors influencing Netflix's content distribution and audience engagement.

In addition, time-series trend analysis will be performed to know how the content has evolved over the years focusing on the release date and maturity level shifts.

5.4 Actionable Insights and Recommendations

Recommendations will be developed to guide Netflix's content acquisition and production strategies based on the analytical findings. The suggestions will include creation or inclusion of content targeting audience of certain underrepresented regions and certain age-groups or maturity level. The insights will help Netflix improve personalization, strengthen audience engagement, and maintain a competitive edge in the streaming industry. The outcomes of the results will be visually represented using rich Excel dashboards and summary reports that support strategic decision-making.

Tools and Justification

Excel will be used for initial data exploration, cleaning and visualization due to its ease of use. Python will be used for deeper statistical insights using pandas and NumPy libraries.

Matplotlib and Seaborn libraries will be used for data visualization and pattern recognition. This combined approach ensures both accessibility and analytical depth for deriving meaningful insights.

6 Expected Timeline

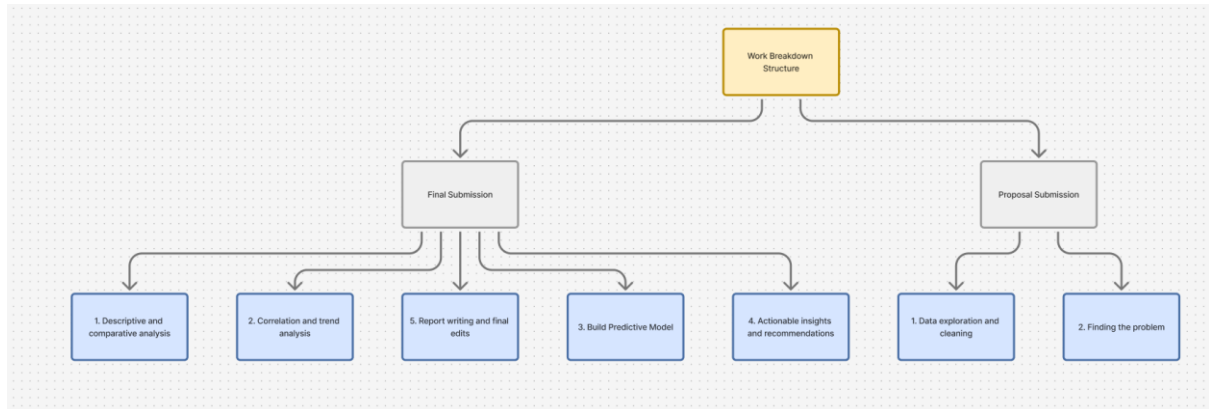


Figure 1: Work Breakdown Structure

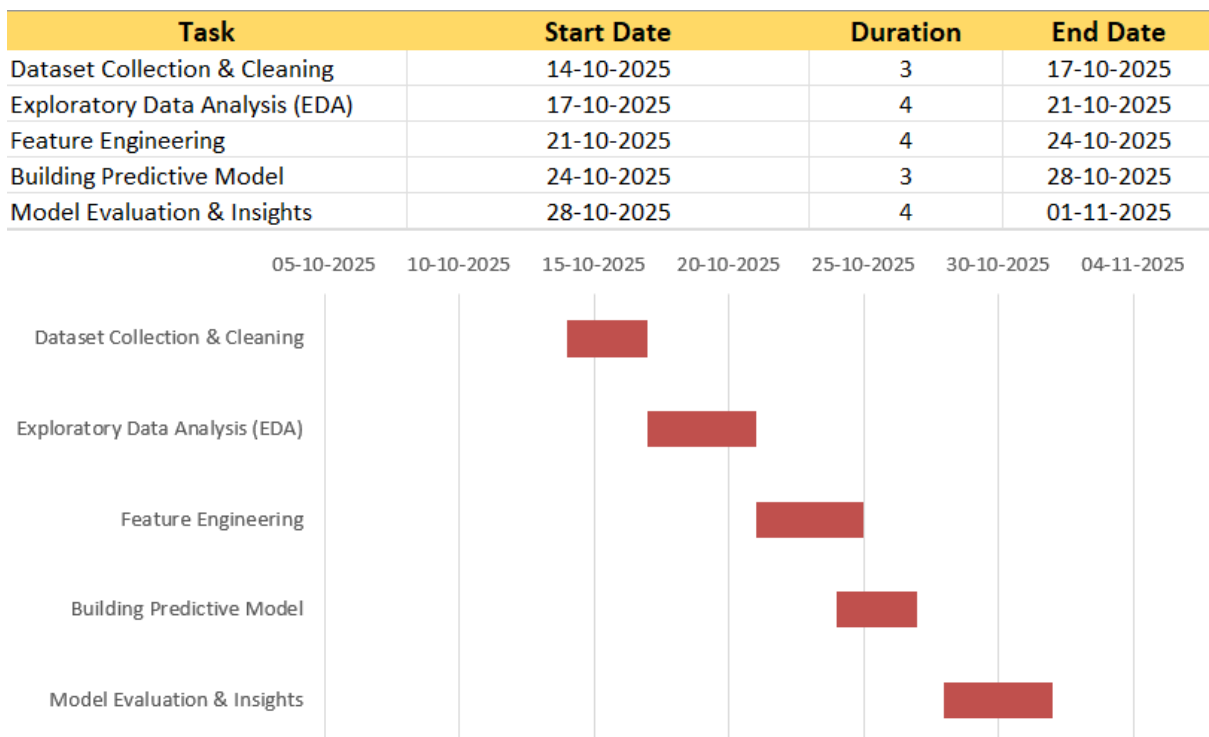


Figure 2: Gantt Chart

7 Expected Outcome

The analysis of the Netflix Movies and TV Shows dataset will provide valuable insights into global viewing patterns and audience preferences. Exploring the relationship between content consumption and genre with age-groups, maturity levels, and region of the audience will help in identifying the patterns to provide a better personalized user experience and inclusion or creation of more popular content. This will help Netflix understand the viewing trends that drive engagement and subscriber retention across different regions.

This project will also uncover underrepresented regions or genres providing Netflix with room to expand its content. Correlation and trend analysis will highlight how various factors affect the popularity of the content.

Finally, the findings will support actionable recommendations for improving personalization, refining content strategy, and optimizing global reach. The reports will be represented through clear dashboards and the company can make data-driven decisions enhancing audience satisfaction and strengthening its value in the market and moving towards a more engaging content library.