**Q2. Business Case: Data Exploration and Visualisation**

**About NETFLIX**

Netflix is one of the most popular media and video streaming platforms. They have over 10000 movies or TV shows available on their platform, as of mid-2021, they have over 222M Subscribers globally. This tabular dataset consists of listings of all the movies and TV shows available on Netflix, along with details such as - cast, directors, ratings, release year, duration, etc.

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**Business Problem Statement**

Analyze the data and generate insights that could help Netflix in deciding which type of shows/movies to produce and how they can grow the business in different countries

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**Dataset Link:**

<https://d2beiqkhq929f0.cloudfront.net/public_assets/assets/000/000/940/original/netflix.csv>

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The dataset provided to you consists of a list of all the TV shows/movies available on Netflix:

**Show\_id:** Unique ID for every Movie / Tv Show  
**Type:** Identifier - A Movie or TV Show  
**Title:** Title of the Movie / Tv Show  
**Director:** Director of the Movie  
**Cast:** Actors involved in the movie/show  
**Country:** Country where the movie/show was produced  
**Date\_added:** Date it was added on Netflix  
**Release\_year:** Actual Release year of the movie/show  
**Rating:** TV Rating of the movie/show  
**Duration:** Total Duration - in minutes or number of seasons  
**Listed\_in:** Genre  
**Description:** The summary description

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**Exploratory Analysis mainly focuses on the following:**

1. The exploration should have a goal. As you explore the data, keep in mind that you want to answer which type of shows to produce and how to grow the business.
2. Ensure each recommendation is backed by data. The company is looking for data-driven insights, not personal opinions or anecdotes.
3. Assume that you are presenting your findings to business executives who have only a basic understanding of data science. Avoid unnecessary technical jargon.
4. Start by exploring a few questions: What type of content is available in different countries?
   1. How has the number of movies released per year changed over the last 20-30 years?
   2. Comparison of TV shows vs. movies.
   3. What is the best time to launch a TV show?
   4. Analysis of actors/directors of different types of shows/movies.
   5. Does Netflix have more focus on TV Shows than movies in recent years
   6. Understanding what content is available in different countries

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**Structure of Exploratory Analysis:**

1. Defining Problem Statement and Analysing basic metrics

2. Observations on the shape of data, data types of all the attributes, conversion of categorical attributes to 'category' (If required), missing value detection, statistical summary

3. Non-Graphical Analysis: Value counts and unique attributes ​

4. Visual Analysis - Univariate, Bivariate after pre-processing of the data

Note: Pre-processing involves unnesting of the data in columns like Actor, Director, Country

4.1 For continuous variable(s): Distplot, countplot, and histogram for univariate analysis

4.2 For categorical variable(s): Boxplot

4.3 For correlation: Heatmaps, Pairplots

5. Missing Value & Outlier check

6. Insights based on Non-Graphical and Visual Analysis

6.1 Comments on the range of attributes and the distribution of the variables and the relationship between them

7. Business Insights  - Should include patterns observed in the data along with what you can infer from it

8. Recommendations - Actionable items for business. No technical jargon. No complications. Simple action items that everyone can understand

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