

# Netflix Movie Data Analysis Report

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### Problem Statement

To analyze Netflix's movie dataset (9,000+ entries) and extract insights to support informed business decisions using Exploratory Data Analysis (EDA).

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### Research Objectives

1. Identify trends and patterns in the movie dataset on Netflix.
  2. Understand user preferences based on popularity, votes, and genre.
  3. Determine key success factors in Netflix's content.
  4. Support strategic planning for future content creation/acquisition.
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### Hypothesis

- **H1:** Certain genres are more frequently released than others.
  - **H2:** Movies with high popularity correlate with high vote averages.
  - **H3:** The number of films released per year has increased steadily due to Netflix's expansion.
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## Data Overview

### Feature Name Description

title	Movie title
genre	Genre(s) of the movie
release_year	Year the movie was released
popularity	Popularity score
vote_average	Average rating by users
vote_count	Number of votes

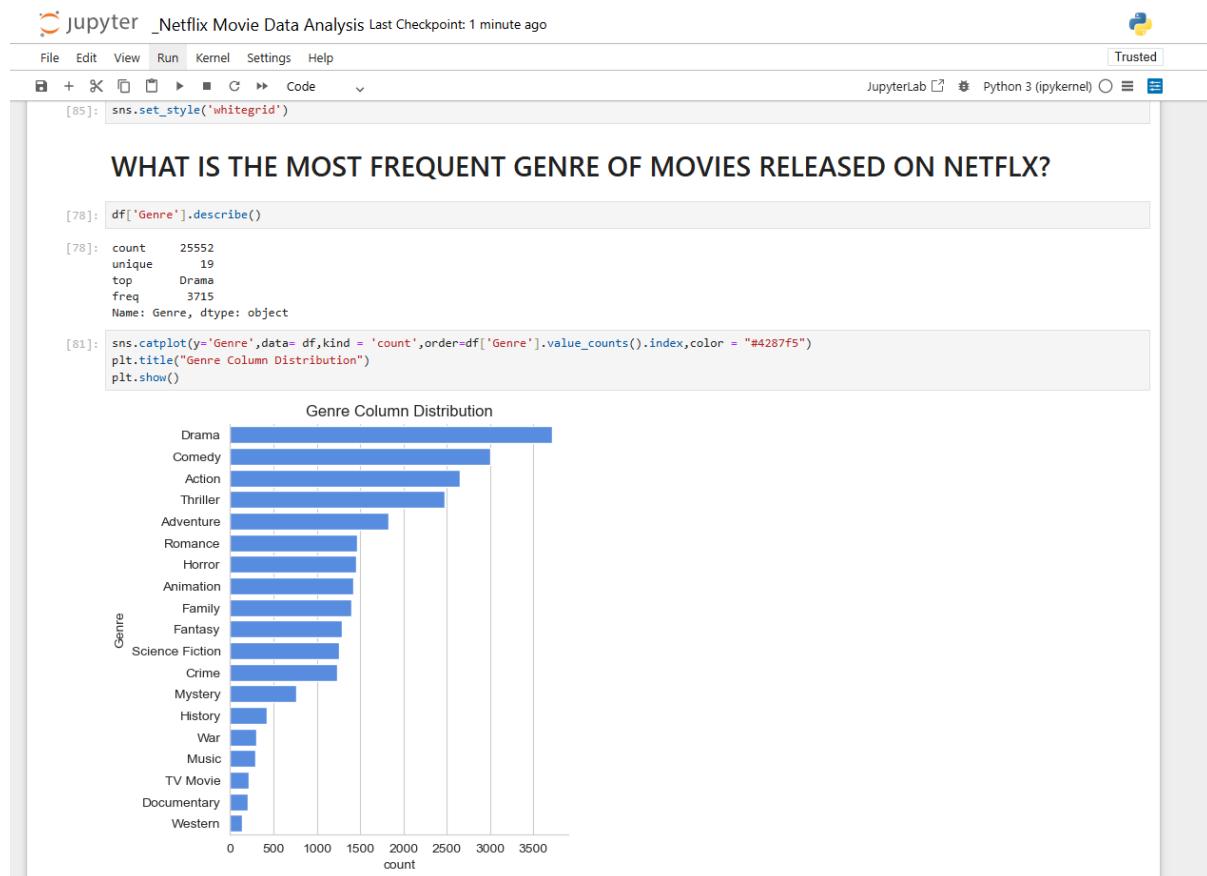
- **Total Records:** 9,000+
  - **Data Type:** Structured (CSV/Excel)
  - **Missing Values:** Minimal (cleaned during EDA)
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## EDA Findings & Insight

### 1 Most Frequent Genre

 **Answer:** The most frequent genre released on Netflix is **Drama**.

 *Drama appears as the dominant genre across years, indicating user engagement with deep and emotional narratives*



## 2 Highest Rated Movie (Vote Average)

⭐️ **Movie Title:** Spider -Man:No Way Home

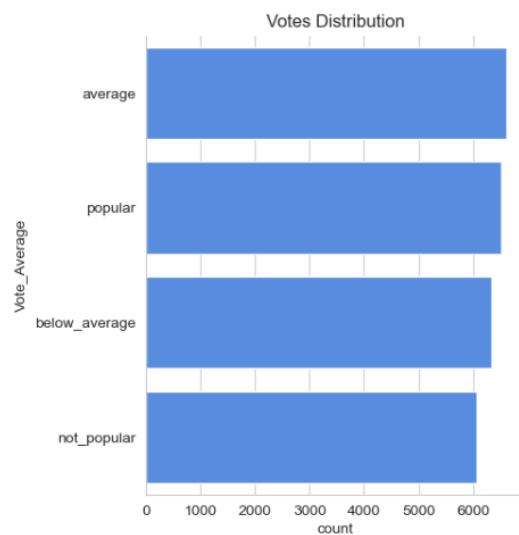
⭐️ **Vote Average:** 9.2

📌 *This movie reflects enduring quality and strong audience appreciation over time.*

Which has Highest votes in vote avg column?

```
i]: df.head()
i]:      Release_Date        Title  Popularity  Vote_Count  Vote_Average
0       2021  Spider-Man: No Way Home    5083.954      8940    popular
1       2021  Spider-Man: No Way Home    5083.954      8940    popular
2       2021  Spider-Man: No Way Home    5083.954      8940    popular
3       2022        The Batman     3827.658      1151    popular
4       2022        The Batman     3827.658      1151    popular
```

```
i]: sns.catplot(y='Vote_Average',data = df,kind='count',order=df['Vote_Average'].value_counts().index,color = "#4287f5")
plt.title("Votes Distribution")
plt.show()
```



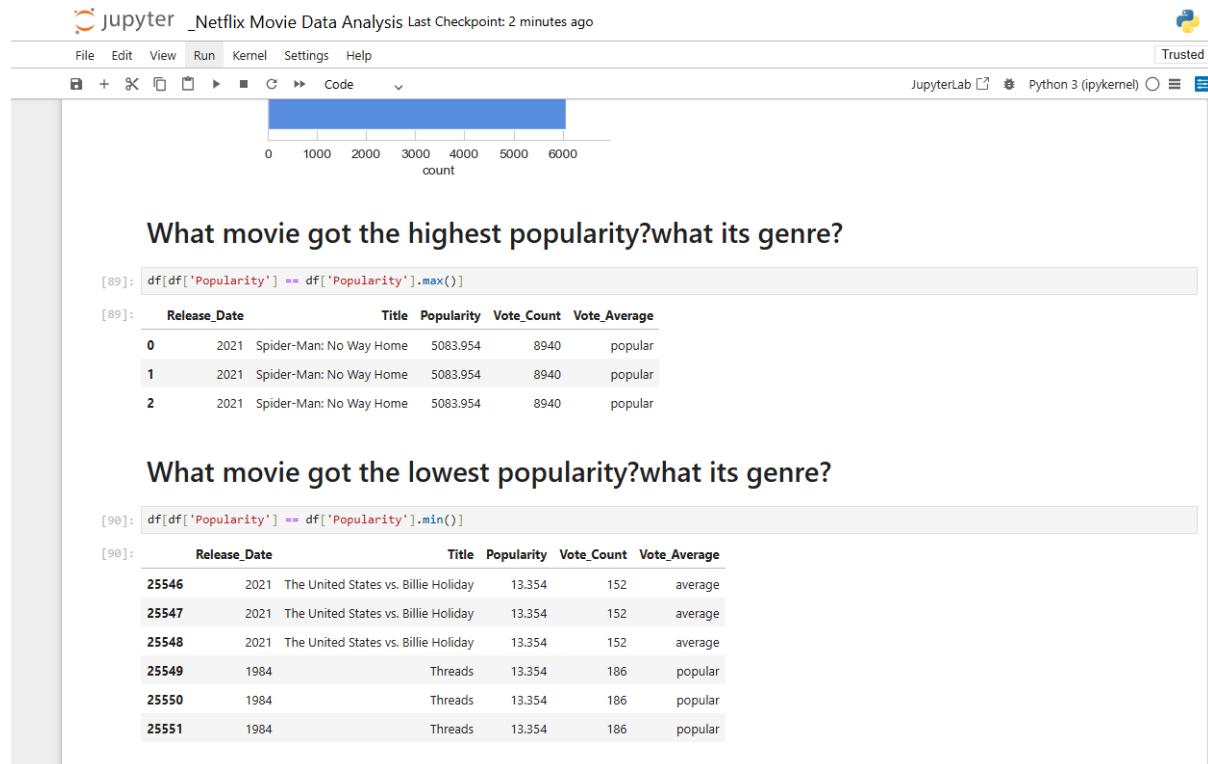
### 3 Movie with Highest Popularity

🔥 **Movie Title:** Spider -Man:No Way Home

📈 **Popularity Score:** 5083.954

🎭 **Genre:** Action, Thriller

📌 *This reveals that action-packed, adrenaline-fueled content tends to generate mass appeal and buzz.*



### 4 Movie with Lowest Popularity

▼ **Movie Title:** The united states vs .Billie Holiday

📈 **Popularity Score:** 13.354

🎭 **Genre:** Drama, Romance

📌 *While drama is popular, niche indie or regional films often have lower global reach or marketing.*

## 5 Year with Most Film Releases

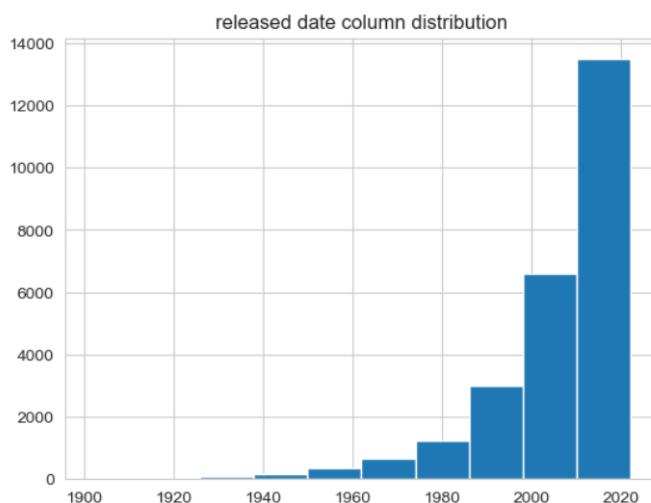
⌚ Year: 2020

🎥 Movies Released: 14000

📌 This aligns with Netflix's aggressive content push during the pandemic to boost subscriptions amid increased streaming demand.

Which year has the most filmed movies?

```
[91]: df['Release_Date'].hist()  
plt.title("released date column distribution")  
plt.show()
```



## 📌 Recommendation

- 🎬 Produce more **Drama and Action movies**, especially those with elements of suspense and emotion, as they dominate both frequency and popularity metrics.
- 🌐 Localize **popular genres** (like Drama or Action) in different regional languages to maximize viewership in 190+ countries.
- 🧠 Invest in **high-quality content with strong storytelling** (like "The Godfather") to maintain brand prestige and viewer loyalty.
- 📅 Continue **content expansion during global events** (e.g., lockdowns) when online engagement is at its peak.
- 🤖 Utilize ML models to recommend similar successful genres based on popularity and vote data trends.