

# Investigating Netflix Movies



**Netflix!** What started in 1997 as a DVD rental service has since exploded into one of the largest entertainment and media companies.

Given the large number of movies and series available on the platform, it is a perfect opportunity to flex your exploratory data analysis skills and dive into the entertainment industry.

You work for a production company that specializes in nostalgic styles. You want to do some research on movies released in the 1990's. You'll delve into Netflix data and perform exploratory data analysis to better understand this awesome movie decade!

You have been supplied with the dataset `netflix_data.csv`, along with the following table detailing the column names and descriptions. Feel free to experiment further after submitting!

## The data

### **netflix\_data.csv**

Column	Description
<code>show_id</code>	The ID of the show
<code>type</code>	Type of show
<code>title</code>	Title of the show
<code>director</code>	Director of the show
<code>cast</code>	Cast of the show

Column	Description
country	Country of origin
date_added	Date added to Netflix
release_year	Year of Netflix release
duration	Duration of the show in minutes
description	Description of the show
genre	Show genre

```
In [1]: # Importing pandas and matplotlib
import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
# Read in the Netflix CSV as a DataFrame
netflix_df = pd.read_csv("netflix_data.csv")
```

```
In [2]: # Start coding here! Use as many cells as you like
netflix_df.head()
```

Out[2]:

	show_id	type	title	director	cast	country	date_added	release_year	duration
0	s2	Movie	7:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	2016	
1	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	2011	
2	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connely...	United States	November 16, 2017	2009	
3	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	2008	
4	s6	TV Show	46	Serdar Akar	Erdal Beşikçioğlu, Yasemin Allen, Melis Birkan...	Turkey	July 1, 2017	2016	

In [3]:

```
# Filter the data for movies released in the 1990s
movies = netflix_df[netflix_df['type'] == 'Movie']
netflix_1990s_movies = movies[(movies['release_year'] >= 1990) &
(movies['release_year'] < 2000)]
netflix_1990s_movies.head()
```

Out[3]:

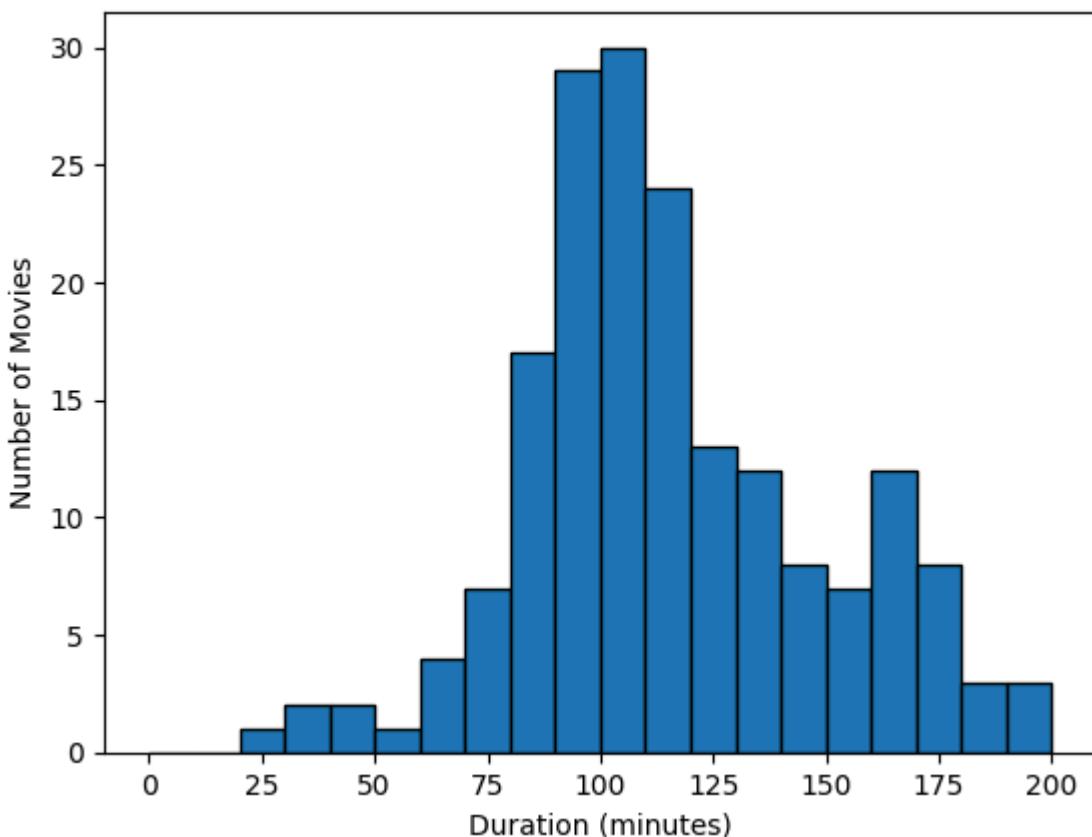
	show_id	type	title	director	cast	country	date_added	release_y
6	s8	Movie	187	Kevin Reynolds	Samuel L. Jackson, John Heard, Kelly Rowan, Cl...	United States	November 1, 2019	19
118	s167	Movie	A Dangerous Woman	Stephen Gyllenhaal	Debra Winger, Barbara Hershey, Gabriel Byrne, ...	United States	April 1, 2018	19
145	s211	Movie	A Night at the Roxbury	John Fortenberry	Will Ferrell, Chris Kattan, Dan Hedaya, Molly ...	United States	December 1, 2019	19
167	s239	Movie	A Thin Line Between Love & Hate	Martin Lawrence	Martin Lawrence, Lynn Whitfield, Regina King, ...	United States	December 1, 2020	19
194	s274	Movie	Aashik Awara	Umesh Mehra	Saif Ali Khan, Mamta Kulkarni, Mohnish Bahl, S...	India	June 1, 2017	19

In [4]:

```
# Find the most frequent movie duration
plt.clf()
plt.hist(netflix_1990s_movies['duration'], bins=np.arange(0,
netflix_1990s_movies['duration'].max() + 10, 10), edgecolor='black')
plt.title('Distribution of Movie Durations in the 1990s')
plt.xlabel('Duration (minutes)')
plt.ylabel('Number of Movies')
plt.show()

# Most frequent movie duration
duration = int(netflix_1990s_movies['duration'].mode()[0])
print(f"The most frequent movie duration in the 1990s is: {duration} minutes")
```

## Distribution of Movie Durations in the 1990s



The most frequent movie duration in the 1990s is: 94 minutes

```
In [5]: # Count the number of short action movies from the 1990s
action_movies_1990s =
netflix_1990s_movies[netflix_1990s_movies['genre'].fillna('') .str.lower() == 'action']

short_movie_count = 0
for lab, row in action_movies_1990s.iterrows():
    if row["duration"] < 90:
        short_movie_count += 1

print(f"The number of short action movies from the 1990s is:
{short_movie_count}")
```

The number of short action movies from the 1990s is: 7