

**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
<code>country</code>	Country of origin
<code>date_added</code>	Date added to Netflix
<code>release_year</code>	Year of Netflix release
<code>duration</code>	Duration of the show in minutes
<code>description</code>	Description of the show
<code>genre</code>	Show genre

```
# Importing pandas and matplotlib
import pandas as pd
import matplotlib.pyplot as plt

# Read in the Netflix CSV as a DataFrame
netflix_df = pd.read_csv("netflix_data.csv")
```

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# Read in the Netflix CSV as a DataFrame
netflix_df = pd.read_csv("netflix_data.csv")

# Subset the DataFrame for type "Movie"
netflix_subset = netflix_df[netflix_df["type"] == "Movie"]

# Filter the to keep only movies released in the 1990s
# Start by filtering out movies that were released before 1990
subset = netflix_subset[(netflix_subset["release_year"] >= 1990)]

# And then do the same to filter out movies released on or after 2000
movies_1990s = subset[(subset["release_year"] < 2000)]

# Another way to do this step is to use the & operator which allows you to do this type
of filtering in one step
# movies_1990s = netflix_subset[(netflix_subset["release_year"] >= 1990) &
(netflix_subset["release_year"] < 2000)]

# Visualize the duration column of your filtered data to see the distribution of movie
durations
# See which bar is the highest and save the duration value, this doesn't need to be
exact!
plt.hist(movies_1990s["duration"])
plt.title('Distribution of Movie Durations in the 1990s')
plt.xlabel('Duration (minutes)')
plt.ylabel('Number of Movies')
plt.show()

duration = 100

# Filter the data again to keep only the Action movies
action_movies_1990s = movies_1990s[movies_1990s["genre"] == "Action"]

# Use a for loop and a counter to count how many short action movies there were in the
1990s

# Start the counter
short_movie_count = 0

# Iterate over the labels and rows of the DataFrame and check if the duration is less
than 90, if it is, add 1 to the counter, if it isn't, the counter should remain the same
for label, row in action_movies_1990s.iterrows():
    if row["duration"] < 90:
        short_movie_count = short_movie_count + 1
    else:
        short_movie_count = short_movie_count

print(short_movie_count)

# A quicker way of counting values in a column is to use .sum() on the desired column
# (action_movies_1990s["duration"] < 90).sum()
```

Distribution of Movie Durations in the 1990s

