

```
import pandas as pd
!pip install plotly
!pip install dash
import plotly.express as px
import dash
import dash_core_components as dcc
import dash_html_components as html
from dash.dependencies import Input, Output
!pip install dash-bootstrap-components
```

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Requirement already satisfied: plotly in /usr/local/lib/python3.10/dist-packages (5.13.1)
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Collecting dash-bootstrap-components
```

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  Downloading dash_bootstrap_components-1.4.1-py3-none-any.whl (220 kB)
```

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Requirement already satisfied: six>=1.7.0 in /usr/local/lib/python3.10/dist-packages (from retryin
Installing collected packages: dash-bootstrap-components
Successfully installed dash-bootstrap-components-1.4.1
```

▼ Importing DataSet:

```
file=pd.read_csv("netflix_titles.csv")
file.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rating
0	s1	Movie	Dick Johnson Is Dead	Kirsten Johnson	NaN	United States	September 25, 2021	2020.0	PG-13
1	s2	TV Show	Blood & Water	NaN	Ama Qamata, Khosi Ngema, Gail Mabalane, Thabane...	South Africa	September 24, 2021	2021.0	TV-M/
2	s3	TV Show	Ganglands	Julien Leclercq	Sami Bouajila, Tracy Gotoas, Samuel Jouy, Nabi...	NaN	September 24, 2021	2021.0	TV-M/
3	s4	TV Show	Jailbirds New Orleans	NaN	NaN	NaN	September 24, 2021	2021.0	TV-M/
4	s5	TV Show	Kota Factory	NaN	Mayur More, Jitendra Kumar, Ranjan Raj, Alam K...	India	September 24, 2021	2021.0	TV-M/



```
file.shape
```

(5398, 12)

```
file.columns
```

```
Index(['show_id', 'type', 'title', 'director', 'cast', 'country', 'date_added',
      'release_year', 'rating', 'duration', 'listed_in', 'description'],
      dtype='object')
```

```
file.isnull().sum()
```

```
show_id      0
type         0
title        1
director    1883
cast         495
country      663
date_added   1
release_year  1
rating       1
duration     1
```

```

listed_in      1
description    1
dtype: int64

```

```

file=file.drop_duplicates()
file=file.dropna()
file.shape

```

```
(2964, 12)
```

```
file.head()
```

	show_id	type	title	director	cast	country	date_added	release_year	rat
7	s8	Movie	Sankofa	Haile Gerima	Kofi Ghanaba, Oyafunmike Ogunlano, Alexandra D...	United States, Ghana, Burkina Faso, United Kin...	September 24, 2021	1993.0	TV
8	s9	TV Show	The Great British Baking Show	Andy Devonshire	Mel Giedroyc, Sue Perkins, Mary Berry, Paul Ho...	United Kingdom	September 24, 2021	2021.0	TV
9	s10	Movie	The Starling	Theodore Melfi	Melissa McCarthy, Chris O'Dowd, Kevin Kline, T...	United States	September 24, 2021	2021.0	PG
12	s13	Movie	Je Suis Karl	Christian Schwochow	Luna Wedler, Jannis Niewöhner, Milan Peschel, ...	Germany, Czech Republic	September 23, 2021	2021.0	TV
24	s25	Movie	Jeans	S. Shankar	Prashanth, Aishwarya Rai Bachchan, Sri Lakshmi...	India	September 21, 2021	1998.0	TV



▼ Scatter Plot Using plotly :

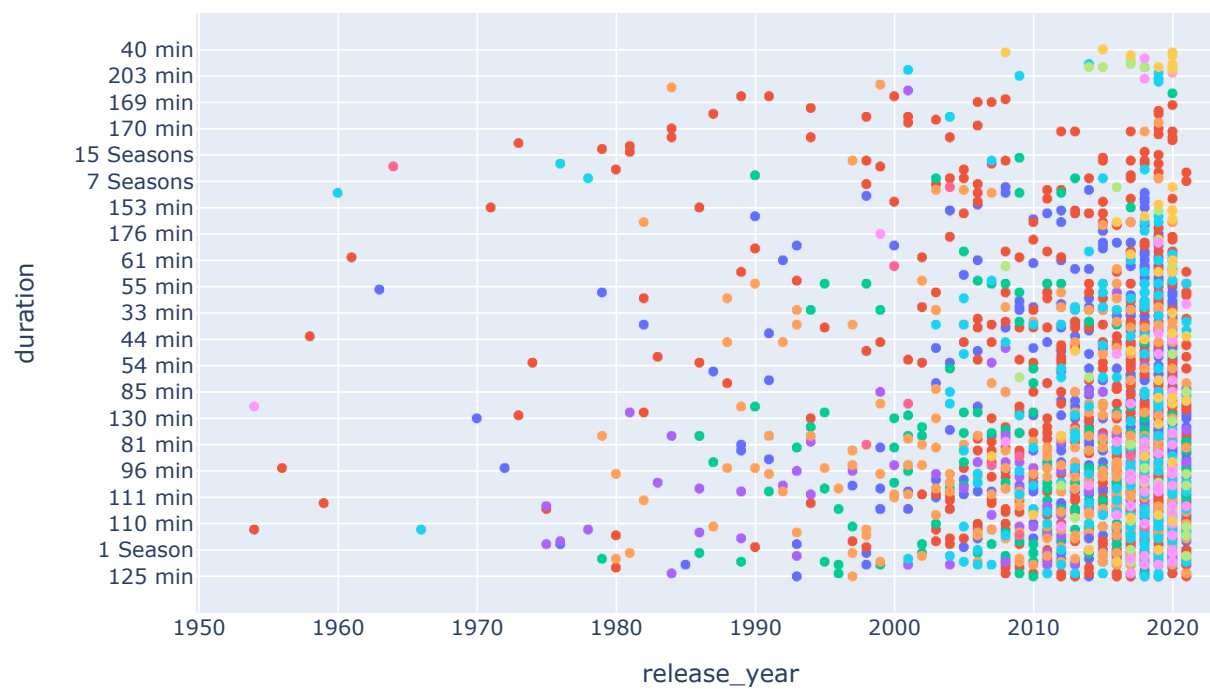
Release Year And duration of movie with rating label

```

import plotly.graph_objects as go
figure_for_scatter_plot = px.scatter(file, x='release_year', y='duration', color='rating', title='Releas
figure_for_scatter_plot.show()

```

Release Year vs Duration

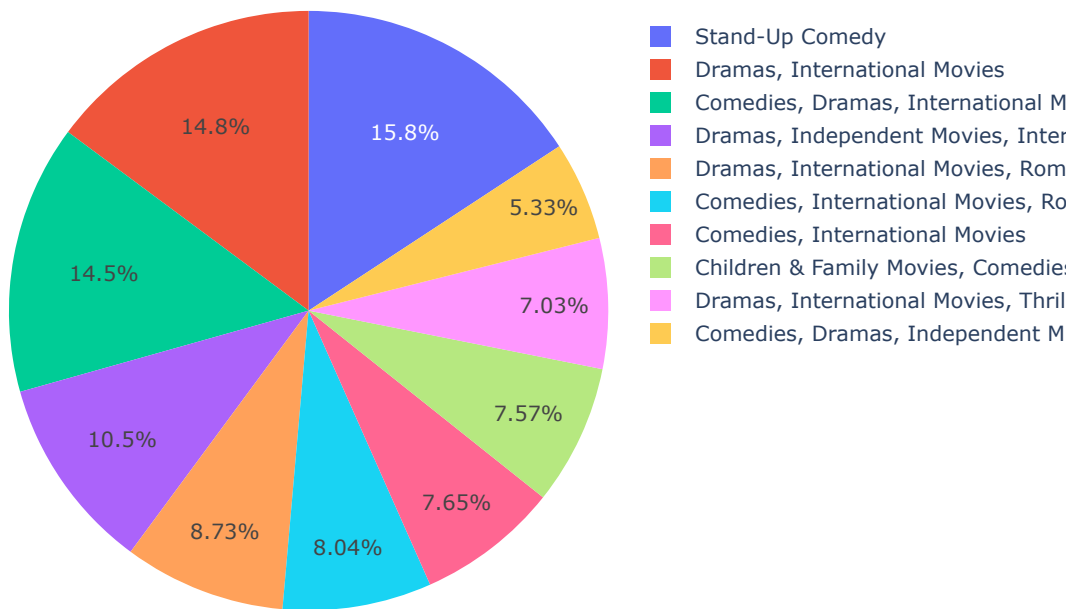


Bar Plot Using Plotly:

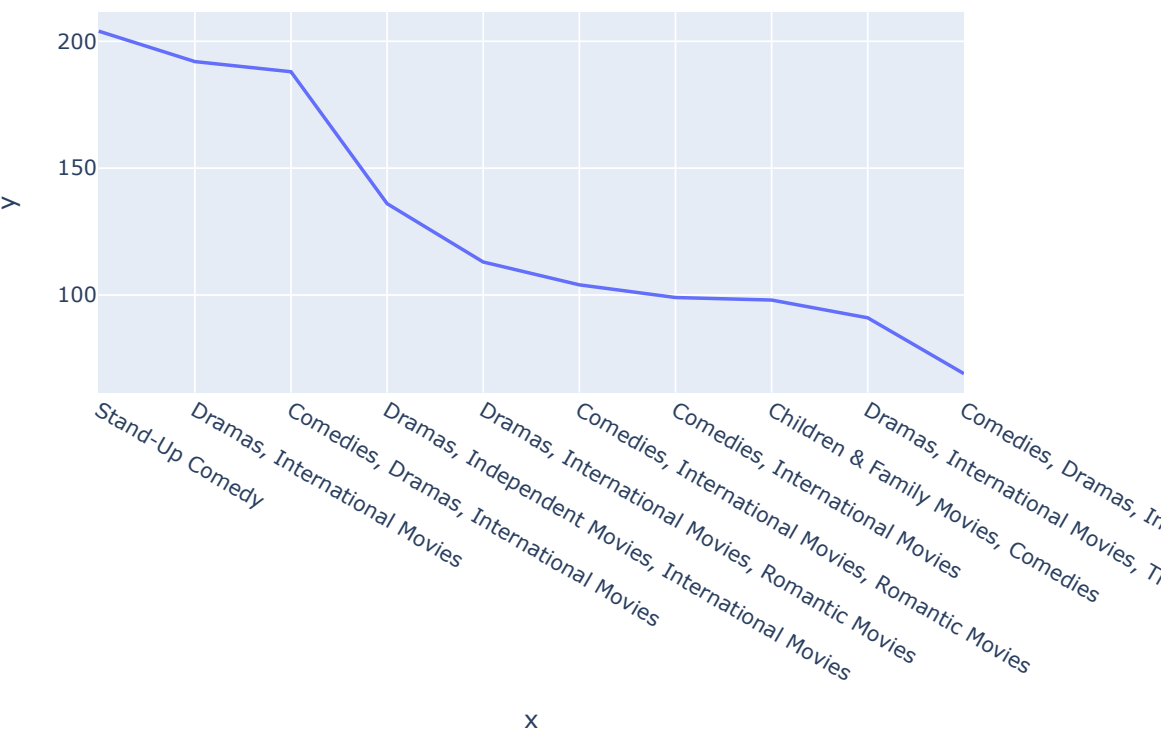
```
genre_counts = file['listed_in'].value_counts()
figure_for_bar_graph = px.bar(x=genre_counts.index, y=genre_counts.values, labels={'x': 'Genre', 'y': 'C
                             title='Movie Genre Distribution')
figure_for_bar_graph.show()
```

```
top_10_genre=genre_counts.nlargest(10)
figure_for_pie_chart = px.pie(values=top_10_genre.values, names=top_10_genre.index, title='Top 10 Movie
figure_for_pie_chart.show()
figure_for_line_graph = px.line(x=top_10_genre.index, y=top_10_genre.values, title='Top 10 Movie Genre D
figure_for_line_graph.show()
```

Top 10 Movie Genre Distribution



Top 10 Movie Genre Distribution



```

app = dash.Dash(__name__)

app.layout = html.Div([
    html.H1("Interactive Dashboard"),

    dcc.Graph(figure=figure_for_scatter_plot),

    dcc.Graph(figure=figure_for_bar_graph),

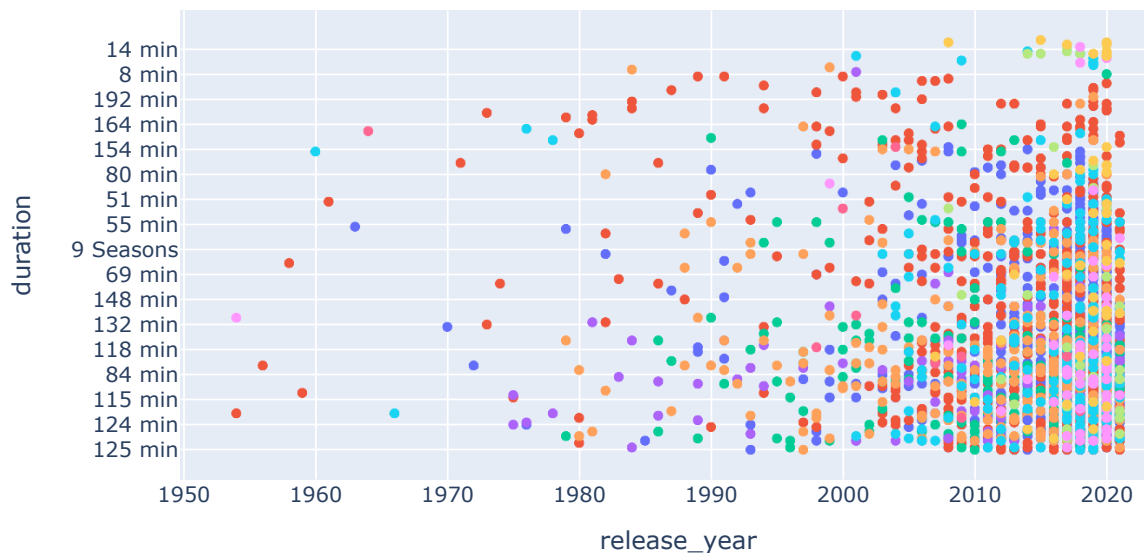
    dcc.Graph(figure=figure_for_pie_chart),

    dcc.Graph(figure=figure_for_line_graph)
])
if __name__ == '__main__':
    app.run_server(debug=True)

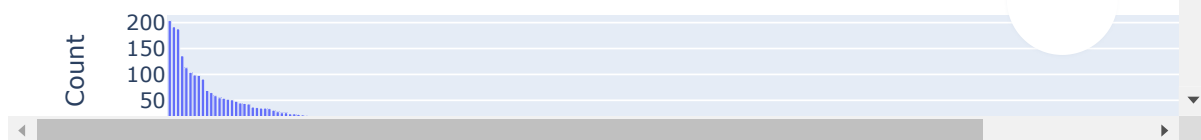
```

Interactive Dashboard

Release Year vs Duration



Movie Genre Distribution



```

import dash
import dash_bootstrap_components as dbc
import dash_core_components as dcc
import dash_html_components as html

app = dash.Dash(__name__, external_stylesheets=[dbc.themes.BOOTSTRAP])

app.layout = dbc.Container([
    html.H1("Interactive Dashboard"),

```

```

dcc.Graph(id='scatter-plot', figure=figure_for_scatter_plot),

dcc.Graph(id='bar-graph', figure=figure_for_bar_graph),

dcc.Graph(id='pie-chart', figure=figure_for_pie_chart),

dcc.Graph(id='line-plot', figure=figure_for_line_graph),

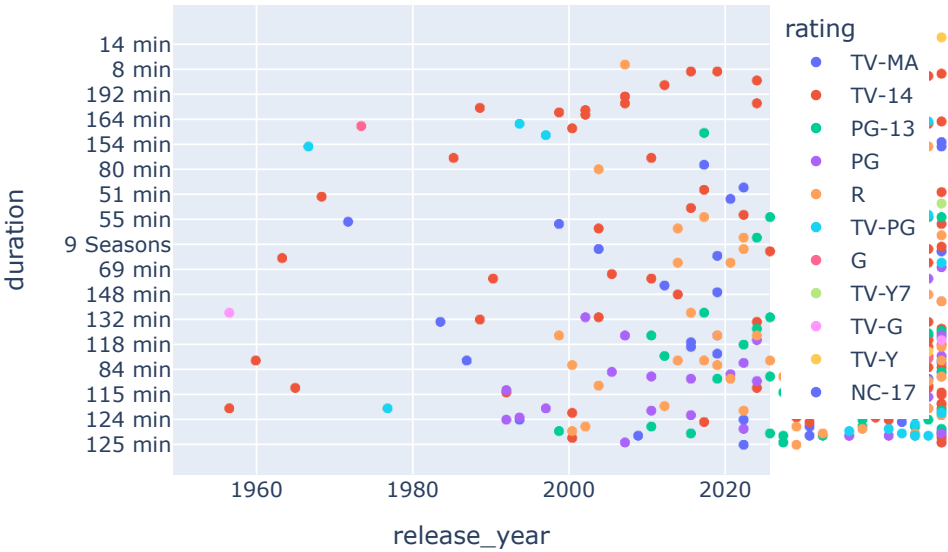
html.Div([
    html.Label("Select a genre:"),
    dcc.Dropdown(
        id='genre-dropdown',
        options=[
            {'label': 'Action', 'value': 'Action'},
            {'label': 'Comedy', 'value': 'Comedy'},
            {'label': 'Drama', 'value': 'Drama'}
            # Add more options based on your data
        ],
        value='Action' # Set a default value
    )
]),

html.Div([
    html.Label("Select a threshold:"),
    dcc.Slider(
        id='threshold-slider',
        min=0,
        max=100,
        step=5,
        value=50, # Set a default value
        marks={
            0: {'label': '0'},
            50: {'label': '50'},
            100: {'label': '100'}
        }
    )
])
],
fluid=True
)
if __name__ == '__main__':
    app.run_server(debug=True)

```

Interactive Dashboard

Release Year vs Duration



Movie Genre Distribution



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