

```
In [17]: import pandas as pd  
import matplotlib.pyplot as plt  
import numpy as np  
import seaborn as sns
```

Q1: How can you load a Netflix dataset into a Pandas Data Frame, and what method will you

use to get basic information about the dataset?

```
In [19]: df = pd.read_csv('netflix.csv')
```

```
In [20]: df
```

Out[20]:

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availa
0	Lets Fight Ghost	Crime, Drama, Fantasy, Horror, Romance	Comedy Programmes,Romantic TV Comedies,Horror ...	Swedish, Spanish	Series	4.3	Tha
1	HOW TO BUILD A GIRL	Comedy	Dramas,Comedies,Films Based on Books,British	English	Movie	7.0	Ca
2	The Con-Heartist	Comedy, Romance	Romantic Comedies,Comedies,Romantic Films,Thai...	Thai	Movie	8.6	Tha
3	Gleboka woda	Drama	TV Dramas,Polish TV Shows,Social Issue TV Dramas	Polish	Series	8.7	P
4	Only a Mother	Drama	Social Issue Dramas,Dramas,Movies Based on Boo...	Swedish	Movie	8.3	Lithuania,Poland,France,Italy,Spain,Greece
...	
9420	13 Going on 30	Comedy, Fantasy, Romance	Romantic Comedies,Comedies,Romantic Films,Roma...	English, Portuguese	Movie	3.1	Hungary,Lithuania,Romania,United Kingdom,E

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availa
9421	LIFE 2.0	Documentary	Social & Cultural Documentaries,Biographical D...	English	Movie	8.2	Hungary,Lithuania,India,Australia,UK
9422	Brand New Day	Documentary, Music	Australian Comedies,Romantic Comedies,Australi...	English	Movie	8.6	Aus
9423	Daniel Arends: Blessuretijd	Comedy	Stand-up Comedy,International Movies,Comedies	Dutch	Movie	8.8	Be
9424	DreamWorks Happy Holidays from Madagascar	Animation, Comedy, Family	TV Comedies,Kids TV,Animal Tales,TV Cartoons,T...	English	Series	8.4	Belgium,Switzerland,US States,Germany,

9425 rows × 29 columns

In [21]: `df.head()`

Out[21]:

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availability	Run time
0	Lets Fight Ghost	Crime, Drama, Fantasy, Horror, Romance	Comedy Programmes,Romantic TV Comedies,Horror ...	Swedish, Spanish	Series	4.3	Thailand	< min
1	HOW TO BUILD A GIRL	Comedy	Dramas,Comedies,Films Based on Books,British	English	Movie	7.0	Canada	1-2 h
2	The Con-Heartist	Comedy, Romance	Romantic Comedies,Comedies,Romantic Films,Thai...	Thai	Movie	8.6	Thailand	> 2 h
3	Gleboka woda	Drama	TV Dramas,Polish TV Shows,Social Issue TV Dramas	Polish	Series	8.7	Poland	< min
4	Only a Mother	Drama	Social Issue Dramas,Dramas,Movies Based on Boo...	Swedish	Movie	8.3	Lithuania,Poland,France,Italy,Spain,Greece,Bel...	1-2 h

5 rows × 29 columns



In [22]: df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 9425 entries, 0 to 9424
Data columns (total 29 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   Title            9425 non-null    object  
 1   Genre             9400 non-null    object  
 2   Tags              9389 non-null    object  
 3   Languages         9255 non-null    object  
 4   Series or Movie   9425 non-null    object  
 5   Hidden Gem Score  9415 non-null    float64 
 6   Country Availability  9414 non-null    object  
 7   Runtime            9424 non-null    object  
 8   Director           7120 non-null    object  
 9   Writer             7615 non-null    object  
 10  Actors             9314 non-null    object  
 11  View Rating        6827 non-null    object  
 12  IMDb Score         9417 non-null    float64 
 13  Rotten Tomatoes Score  5445 non-null    float64 
 14  Metacritic Score   4082 non-null    float64 
 15  Awards Received     5226 non-null    float64 
 16  Awards Nominated For 6376 non-null    float64 
 17  Boxoffice           3754 non-null    object  
 18  Release Date        9217 non-null    object  
 19  Netflix Release Date 9425 non-null    object  
 20  Production House    4393 non-null    object  
 21  Netflix Link         9425 non-null    object  
 22  IMDb Link            9101 non-null    object  
 23  Summary              9420 non-null    object  
 24  IMDb Votes           9415 non-null    float64 
 25  Image                9425 non-null    object  
 26  Poster               8487 non-null    object  
 27  TMDb Trailer          9425 non-null    object  
 28  Trailer Site          9424 non-null    object  
dtypes: float64(7), object(22)
memory usage: 2.1+ MB
```

Q2: What Pandas method helps you identify missing values in the dataset, and how can you

count the number of missing values for each column?

```
In [24]: df.isnull()
```

Out[24]:

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availability	Runtime	Director	Writer	...	Netflix Release Date	Production House	Netflix Link
0	False	False	False	False	False	False	False	False	False	False	...	False	False	False
1	False	False	False	False	False	False	False	False	False	False	...	False	False	False
2	False	False	False	False	False	False	False	False	False	False	...	False	True	False
3	False	False	False	False	False	False	False	False	True	True	...	False	True	False
4	False	False	False	False	False	False	False	False	False	False	...	False	True	False
...
9420	False	False	False	False	False	False	False	False	False	False	...	False	False	False
9421	False	False	False	False	False	False	False	False	False	True	...	False	True	False
9422	False	False	False	False	False	False	False	False	False	True	...	False	True	False
9423	False	False	False	False	False	False	False	False	False	False	...	False	True	False
9424	False	False	False	False	False	False	False	False	True	True	...	False	True	False

9425 rows × 29 columns



```
In [25]: df.isnull().sum()
```

```
Out[25]: Title          0  
Genre           25  
Tags            36  
Languages       170  
Series or Movie      0  
Hidden Gem Score     10  
Country Availability   11  
Runtime          1  
Director        2305  
Writer         1810  
Actors          111  
View Rating      2598  
IMDb Score        8  
Rotten Tomatoes Score 3980  
Metacritic Score     5343  
Awards Received     4199  
Awards Nominated For 3049  
Boxoffice        5671  
Release Date       208  
Netflix Release Date    0  
Production House    5032  
Netflix Link        0  
IMDb Link          324  
Summary            5  
IMDb Votes         10  
Image              0  
Poster             938  
TMDb Trailer        0  
Trailer Site        1  
dtype: int64
```

```
In [26]: df.isnull().sum()/df.shape[0] * 100
```

```
Out[26]: Title          0.000000
Genre           0.265252
Tags            0.381963
Languages       1.803714
Series or Movie 0.000000
Hidden Gem Score 0.106101
Country Availability 0.116711
Runtime          0.010610
Director         24.456233
Writer           19.204244
Actors           1.177719
View Rating      27.564987
IMDb Score       0.084881
Rotten Tomatoes Score 42.228117
Metacritic Score 56.689655
Awards Received   44.551724
Awards Nominated For 32.350133
Boxoffice         60.169761
Release Date      2.206897
Netflix Release Date 0.000000
Production House 53.389920
Netflix Link      0.000000
IMDb Link         3.437666
Summary           0.053050
IMDb Votes        0.106101
Image             0.000000
Poster            9.952255
TMDb Trailer      0.000000
Trailer Site      0.010610
dtype: float64
```

```
In [27]: df = df.fillna(0)
```

```
In [28]: df
```

Out[28]:

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availa
0	Lets Fight Ghost	Crime, Drama, Fantasy, Horror, Romance	Comedy Programmes,Romantic TV Comedies,Horror ...	Swedish, Spanish	Series	4.3	Tha
1	HOW TO BUILD A GIRL	Comedy	Dramas,Comedies,Films Based on Books,British	English	Movie	7.0	Ca
2	The Con-Heartist	Comedy, Romance	Romantic Comedies,Comedies,Romantic Films,Thai...	Thai	Movie	8.6	Tha
3	Gleboka woda	Drama	TV Dramas,Polish TV Shows,Social Issue TV Dramas	Polish	Series	8.7	P
4	Only a Mother	Drama	Social Issue Dramas,Dramas,Movies Based on Boo...	Swedish	Movie	8.3	Lithuania,Poland,France,Italy,Spain,Greece
...	
9420	13 Going on 30	Comedy, Fantasy, Romance	Romantic Comedies,Comedies,Romantic Films,Roma...	English, Portuguese	Movie	3.1	Hungary,Lithuania,Romania,United Kingdom,E

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Available
9421	LIFE 2.0	Documentary	Social & Cultural Documentaries,Biographical D...	English	Movie	8.2	Hungary,Lithuania,India,Australia,UK
9422	Brand New Day	Documentary, Music	Australian Comedies,Romantic Comedies,Australi...	English	Movie	8.6	Aus
9423	Daniel Arends: Blessuretijd	Comedy	Stand-up Comedy,International Movies,Comedies	Dutch	Movie	8.8	Be
9424	DreamWorks Happy Holidays from Madagascar	Animation, Comedy, Family	TV Comedies,Kids TV,Animal Tales,TV Cartoons,T...	English	Series	8.4	Belgium,Switzerland,US States,Germany,

9425 rows × 29 columns

In [29]: `df.isnull()`

Out[29]:

	Title	Genre	Tags	Languages	Series or Movie	Hidden Gem Score	Country Availability	Runtime	Director	Writer	...	Netflix Release Date	Production House	Netflix Link
0	False	False	False	False	False	False	False	False	False	False	...	False	False	False
1	False	False	False	False	False	False	False	False	False	False	...	False	False	False
2	False	False	False	False	False	False	False	False	False	False	...	False	False	False
3	False	False	False	False	False	False	False	False	False	False	...	False	False	False
4	False	False	False	False	False	False	False	False	False	False	...	False	False	False
...
9420	False	False	False	False	False	False	False	False	False	False	...	False	False	False
9421	False	False	False	False	False	False	False	False	False	False	...	False	False	False
9422	False	False	False	False	False	False	False	False	False	False	...	False	False	False
9423	False	False	False	False	False	False	False	False	False	False	...	False	False	False
9424	False	False	False	False	False	False	False	False	False	False	...	False	False	False

9425 rows × 29 columns

In [30]: `df.isnull().sum()`

```
Out[30]: Title          0  
Genre           0  
Tags            0  
Languages       0  
Series or Movie 0  
Hidden Gem Score 0  
Country Availability 0  
Runtime          0  
Director         0  
Writer           0  
Actors           0  
View Rating      0  
IMDb Score       0  
Rotten Tomatoes Score 0  
Metacritic Score 0  
Awards Received   0  
Awards Nominated For 0  
Boxoffice         0  
Release Date      0  
Netflix Release Date 0  
Production House 0  
Netflix Link       0  
IMDb Link          0  
Summary           0  
IMDb Votes        0  
Image             0  
Poster            0  
TMDb Trailer      0  
Trailer Site      0  
dtype: int64
```

Q3: To get summary statistics for numerical columns, what Pandas method should you use

and what insights can you gather from these statistics?

```
In [32]: df.describe()
```

Out[32]:

	Hidden Gem Score	IMDb Score	Rotten Tomatoes Score	Metacritic Score	Awards Received	Awards Nominated For	IMDb Votes
count	9425.000000	9425.000000	9425.000000	9425.000000	9425.000000	9425.000000	9.425000e+03
mean	5.534854	6.949613	37.373369	25.169125	5.398408	10.848064	6.008344e+04
std	2.452806	0.921831	37.281925	30.927880	15.322014	27.532930	1.463191e+05
min	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000e+00
25%	3.400000	6.500000	0.000000	0.000000	0.000000	0.000000	9.640000e+02
50%	5.300000	7.000000	30.000000	0.000000	1.000000	2.000000	6.563000e+03
75%	8.100000	7.500000	75.000000	55.000000	4.000000	9.000000	5.093100e+04
max	9.800000	9.700000	100.000000	100.000000	300.000000	386.000000	2.354197e+06

Q4: Identify categorical columns using a specific Pandas function, and explain the purpose

of the loop iterating through these columns.

In [34]: `categorical_coloumns=df.select_dtypes(include=['object','category']).columns`In [35]: `for column in categorical_coloumns:
 unique_values=df[column].unique()
 print(f"column:{column}")
 print(f"uniques values:{unique_values}\n")`

```
column:Title
uniques values:['Lets Fight Ghost' 'HOW TO BUILD A GIRL' 'The Con-Heartist' ...
 'Brand New Day' 'Daniel Arends: Blessuretijd'
 'DreamWorks Happy Holidays from Madagascar']

column:Genre
uniques values:['Crime, Drama, Fantasy, Horror, Romance' 'Comedy' 'Comedy, Romance' ...
 'Action, Animation, Comedy, Romance'
 'Animation, Action, Adventure, Fantasy, Sport, Thriller'
 'Adventure, Drama, Fantasy, Romance, Thriller']

column:Tags
uniques values:['Comedy Programmes,Romantic TV Comedies,Horror Programmes,Thai TV Programmes'
 'Dramas,Comedies,Films Based on Books,British'
 'Romantic Comedies,Comedies,Romantic Films,Thai Comedies,Thai Films' ...
 'Social & Cultural Documentaries,Biographical Documentaries,Documentaries,Science & Nature Documentaries,Documentari
es'
 'Australian Comedies,Romantic Comedies,Australian Films,Comedies,Romantic Films'
 'TV Comedies,Kids TV,Animal Tales,TV Cartoons,TV Programmes,Romantic Favorites,Family Watch Together TV']

column:Languages
uniques values:['Swedish, Spanish' 'English' 'Thai' ...
 'English, French, Tibetan, Mandarin, Russian, Hindi, Portuguese, Latin, Italian, Spanish'
 'English, Ibo, Yoruba, Hausa' 'English, Hawaiian, Mandarin']

column:Series or Movie
uniques values:['Series' 'Movie']

column:Country Availability
uniques values:['Thailand' 'Canada' 'Poland' ...
 'Hungary,Lithuania,Romania,United Kingdom,Belgium,Switzerland,Czech Republic,Netherlands,South Korea,Italy,Poland,Gr
eece,Slovakia,Sweden'
 'Hungary,Lithuania,India,Australia,United Kingdom,Canada,Russia,South Africa,Czech Republic,Iceland'
 'Belgium,Switzerland,United States,Germany,United Kingdom,France,India,Russia,Greece,Slovakia,Singapore,Poland,Czech
Republic,Lithuania,Hong Kong,Romania,South Africa,Australia,Spain,Iceland,Portugal,South Korea,Japan,Thailand,Hungar
y,Turkey,Mexico,Canada,Argentina,Malaysia,Brazil,Netherlands,Italy,Israel,Colombia']

column:Runtime
uniques values:['< 30 minutes' '1-2 hour' '> 2 hrs' '30-60 mins' '0']

column:Director
uniques values:['Tomas Alfredson' 'Coky Giedroyc' 'Mez Tharatorn' ...']
```

```
'Patrick Alessandrini' 'Jason Spingarn-Koff' 'Amos Gitai']  
  
column:Writer  
uniques values:['John Ajvide Lindqvist' 'Caitlin Moran'  
'Pattaranad Bhiboonsawade, Mez Tharatorn, Thodsapon Thiptinnakorn' ...  
'Noel Clarke' 'Géla Babluani, Greg Pruss' 'Josh Goldsmith, Cathy Yuspa']  
  
column:Actors  
uniques values:['Lina Leandersson, Kåre Hedebrant, Per Ragnar, Henrik Dahl'  
'Cleo, Paddy Considine, Beanie Feldstein, Dónal Finn'  
'Kathaleeya McIntosh, Nadech Kugimiya, Pimchanok Leuwisetpaiboon, Thiti Mahayotaruk'  
...'Teasa Copprue'  
'Ryuichi Sakamoto, Clem Burke, Annie Lennox, Patrick Seymour'  
'Jung Hyun Kim']  
  
column:View Rating  
uniques values:['R' 0 'PG-13' 'PG' 'TV-14' 'TV-MA' 'TV-Y7' 'Not Rated' 'Unrated'  
'Approved' 'G' 'TV-G' 'Passed' 'TV-Y' 'TV-PG' 'GP' 'MA-17' 'TV-Y7-FV'  
'M/PG' 'X' 'AL' 'NC-17' 'TV-13' 'NOT RATED' 'E']  
  
column:Boxoffice  
uniques values ['$2,122,065' '$70,632' 0 ... '$26,414,527' '$36,136' '$57,231,747']  
  
column:Release Date  
uniques values:['12 Dec 2008' '08 May 2020' '03 Dec 2020' ... '02 Jun 2010' '23 Apr 2004'  
'17 Sep 1988']  
  
column:Netflix Release Date  
uniques values:['2021-03-04' '2021-03-03' '2021-03-02' ... '2016-04-11' '2016-02-12'  
'2015-11-12']  
  
column:Production House  
uniques values:['Canal+, Sandrew Metronome' 'Film 4, Monumental Pictures, Lionsgate' 0  
...  
'Unstoppable Entertainment, Atlantic Swiss Productions, Retro-Juice Productions'  
'Overnight Films' 'Revolution Studios, Thirteen Productions LLC']  
  
column:Netflix Link  
uniques values:['https://www.netflix.com/watch/81415947'  
'https://www.netflix.com/watch/81041267'  
'https://www.netflix.com/watch/81306155' ...  
'https://www.netflix.com/watch/70125340']
```

```
'https://www.netflix.com/watch/70281233'
'https://www.netflix.com/watch/70259784']

column:IMDb Link
uniques values:[ 'https://www.imdb.com/title/tt1139797'
  'https://www.imdb.com/title/tt4193072'
  'https://www.imdb.com/title/tt13393728' ...
  'https://www.imdb.com/title/tt1247640'
  'https://www.imdb.com/title/tt0337563'
  'https://www.imdb.com/title/tt1518809' ]

column:Summary
uniques values:[ 'A med student with a supernatural gift tries to cash in on his abilities by facing off against ghosts, till a wandering spirit brings romance instead.'
  'When nerdy Johanna moves to London, things get out of hand when she reinvents herself as a bad-mouthed music critic to save her poverty-stricken family.'
  'After her ex-boyfriend cons her out of a large sum of money, a former bank employee tricks a scam artist into helping her swindle him in retaliation.'
  ...
  'In an idyllic port town on Australias west coast in the summer of 1969, carefree 16-year-old Willie enjoys hanging out with his pals and wooing a beautiful singer named Rosie -- until his mom ships him back to a Catholic boarding school in Perth.'
  'In his third show, Daniël Arends argues that good deeds are a form of self interest, and evil deeds are a hobby.'
  'Madagascar goes wild with holiday spirit in this set of Valentines Day and Christmas-themed tales featuring everyonees favorite animal characters.' ]

column:Image
uniques values:[ 'https://occ-0-4708-64.1.nflxso.net/dnm/api/v6/evlCitJPPCVCry0BZ1EFb5-QjKc/AAAABcmgLCxN8dNahdY2kgd1hh
cL2a6XrE92x24Bx5h6JFUvH5zMrv6lFw1_awMt33b6DHvkgsUeDx_8Q1rmopwT3fuF8Rq3S1hrkvFf3uzVv2sb3zrtU-LM1Zy1FfrAKD3nKNyA_RQWrm
w.jpg?r=cd0'
  'https://occ-0-1081-999.1.nflxso.net/dnm/api/v6/evlCitJPPCVCry0BZ1EFb5-QjKc/AAAABe_fxMSBM1E-sSoszr12SmkI-498sqBWrEyh
kchdn4Uk1QvjdoPS_Hj-NhvgePvw1DSzMTcrIE0kgiy-zTEU_EaGg.jpg?r=35a'
  'https://occ-0-2188-64.1.nflxso.net/dnm/api/v6/evlCitJPPCVCry0BZ1EFb5-QjKc/AAAABSj6td_whxb4en62Ax5EKSkm121TzEK5CcBhw
BdjRgF6SOJb4RtVoLhPAUWEskuOxPiafxU1qauZDTJguwNQ9GstA.jpg?r=e76'
  ...
  'http://cdn1.nflximg.net/images/5543/12045543.jpg'
  'http://occ-0-768-769.1.nflxso.net/dnm/api/v6/evlCitJPPCVCry0BZ1EFb5-QjKc/AAAABfaXnjUOW0ImkindVrKUsLj6_pGyzqgruElfok
zYYs1Ho3Ixvj_csRujDog1rkI2TJ8TS8Fb02oCkKa0Tqiiz7vYcQ.jpg?r=120'
  'https://occ-0-2773-2774.1.nflxso.net/dnm/api/v6/evlCitJPPCVCry0BZ1EFb5-QjKc/AAAABZw5kYV3oBd71eWvQXoSm5BufEIzAa3uVfN
eu1eHhGiP1R4tUX_1f5-DRNZbfBSS54Kc62LH3ws12Ic9nYOr5PsvTA.jpg?r=9b7' ]

column:Poster
uniques values:[ 'https://m.media-amazon.com/images/M/MV5BOWM4NTY2NTMtZDZlZS00NTgyLWEzZDMtODE3ZGI1MzI3ZmU5XkEyXkFqcGde

```

```

QXVyNzI1NzMxNzM@._V1_SX300.jpg'
'https://m.media-amazon.com/images/M/MV5BZGUyN2ZlMjYtZTk2Yy00MWZiLWIyMDktMzF1MmEzOWV1MGNiXkEyXkFqcGdeQXVyMTE1MzI2NzI
z._V1_SX300.jpg'
'https://m.media-amazon.com/images/M/MV5BODAzOGZmNjUtMTIyMC00NGU1LTg5MTMtZWY4MDdiZjI0NGEwXkEyXkFqcGdeQXVyNzEyMTA5MTU
@._V1_SX300.jpg'
...
'https://images-na.ssl-images-amazon.com/images/M/MV5BMTUyNjY5MDU4MF5BMl5BanBnXkFtZTcwNDAzNzEwMw@._V1_SX300.jpg'
'https://images-na.ssl-images-amazon.com/images/M/MV5BMjA1MTI3ODEwNF5BMl5BanBnXkFtZTcwOTA4NDUyMQ@._V1_SX300.jpg'
'https://images-na.ssl-images-amazon.com/images/M/MV5BMTYxNzkyMzU5MV5BMl5BanBnXkFtZTcwMjk4NzUxMw@._V1_SX300.jpg']

column:TMDb Trailer
uniques values:[ 'https://www.youtube.com/watch?v=LqB6XJix-dM'
'https://www.youtube.com/watch?v=eIbcxPy4okQ'
'https://www.youtube.com/watch?v=md3CmFLGK6Y' ...
'https://www.youtube.com/watch?v=RnGRdaX594k'
'https://www.youtube.com/watch?v=vVCEm1G8Zss'
'https://www.youtube.com/watch?v=h0wDHUAQR9k' ]

column:Trailer Site
uniques values:[ 'YouTube' 'Vimeo' 0]

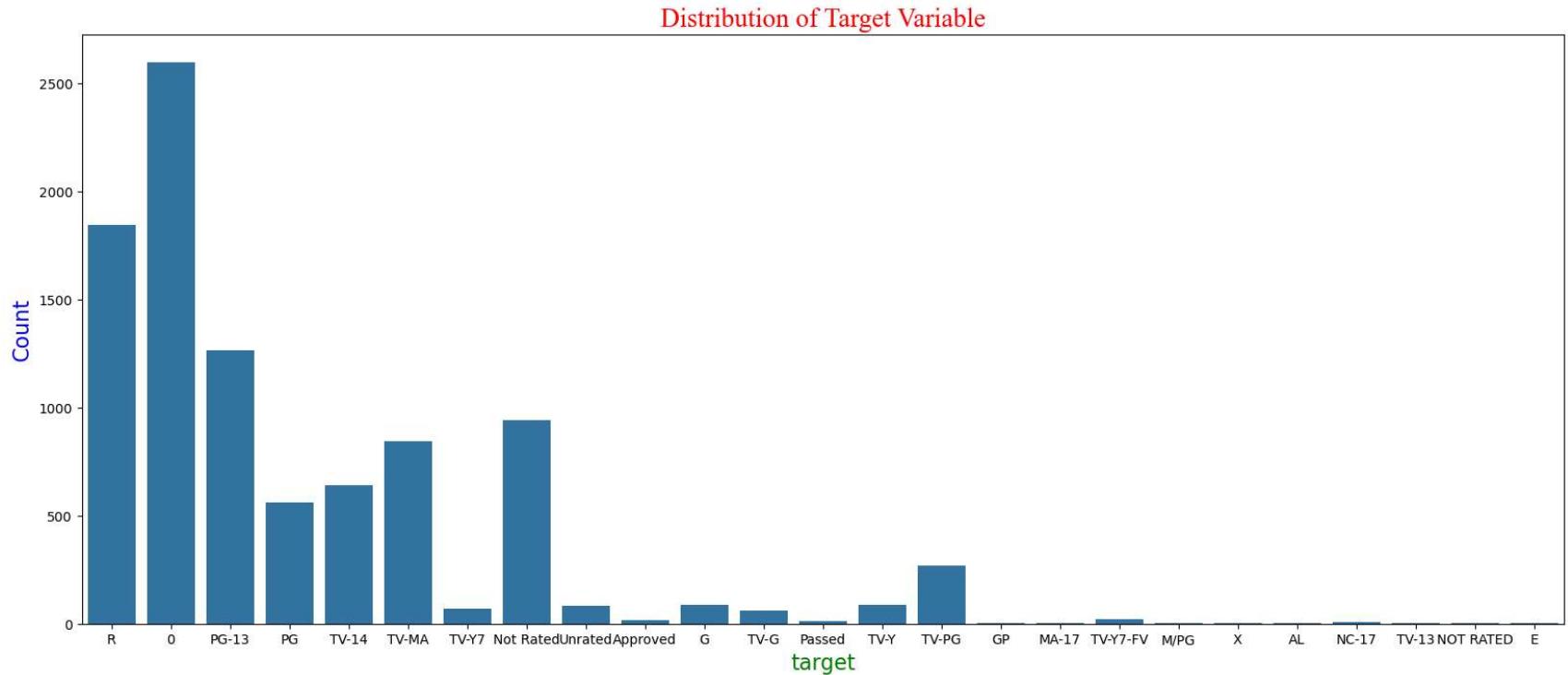
```

Q5: Create any plot to visualize the distribution of your choice . Which Seaborn function will

you use, and what information can you obtain from the plot?

```
In [82]: plt.figure(figsize=(20,8))
sns.countplot(x='View Rating', data=df)
plt.title('Distribution of Target Variable', font='times new roman', color='red' ,fontsize=20)
plt.xlabel('target', color='green', fontsize=16)
plt.ylabel('Count',color='blue', fontsize=16)
```

Out[82]: Text(0, 0.5, 'Count')



Q6: Visualize the distribution of the 'Runtime' column using a Seaborn plot with specific

parameters. What insights can you gather from this visualization?

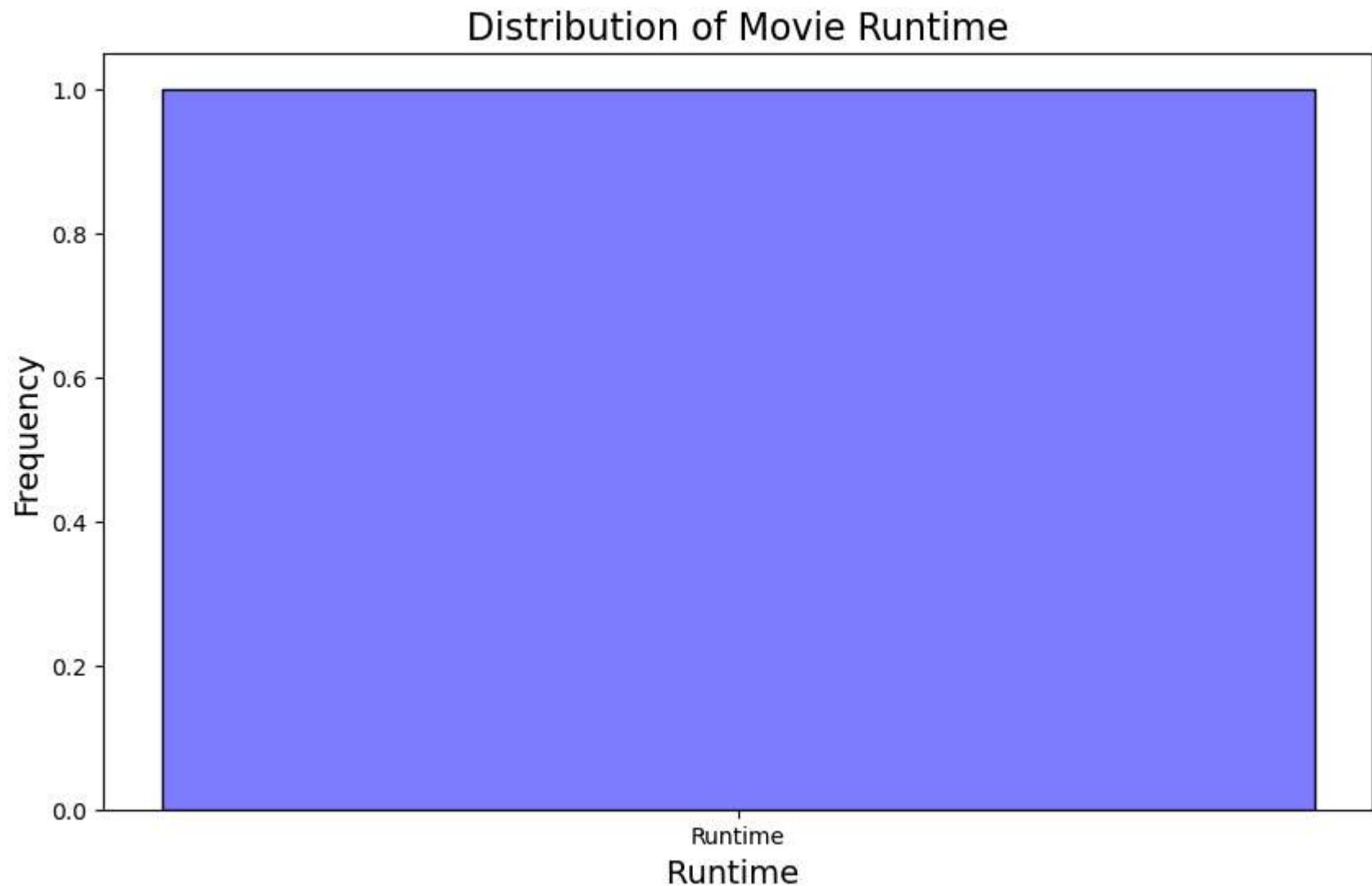
In [107...]

```
import seaborn as sns
import matplotlib.pyplot as plt

plt.figure(figsize=(10, 6))

sns.histplot(data = ['Runtime'], bins=35, kde=True, color='blue')
```

```
plt.title('Distribution of Movie Runtime', fontsize=16)
plt.xlabel('Runtime ', fontsize=14)
plt.ylabel('Frequency', fontsize=14)
plt.show()
```



Q7: Create any plot of choice to explore the relationship between two numerical columns.

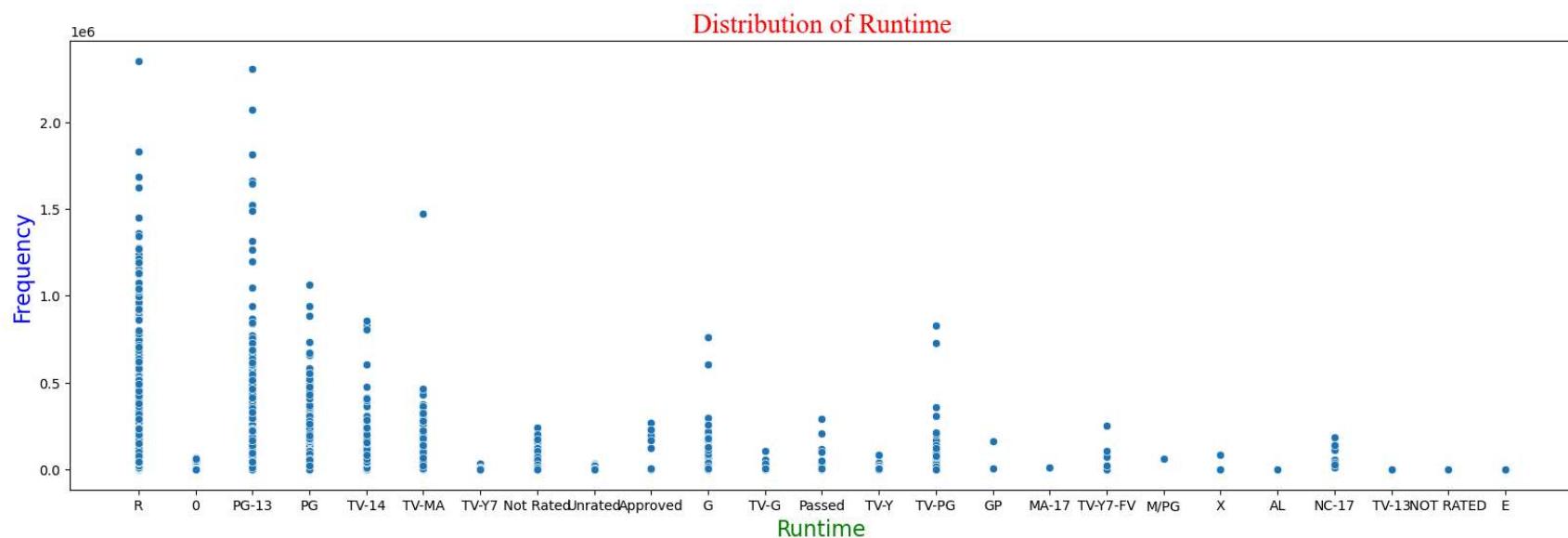
Which Seaborn function should you use, and what does the scatter plot reveal?

In [137...]

```
plt.figure(figsize=(20, 6))
sns.scatterplot(x='View Rating', y='Rating', data=df)
# Set title and labels
plt.title('Distribution of Runtime', font='times new roman', color='red', fontsize=20)
plt.xlabel('Runtime', color='green', fontsize=16)
plt.ylabel('Frequency', color='blue', fontsize=16)
```

Out[137...]

Text(0, 0.5, 'Frequency')



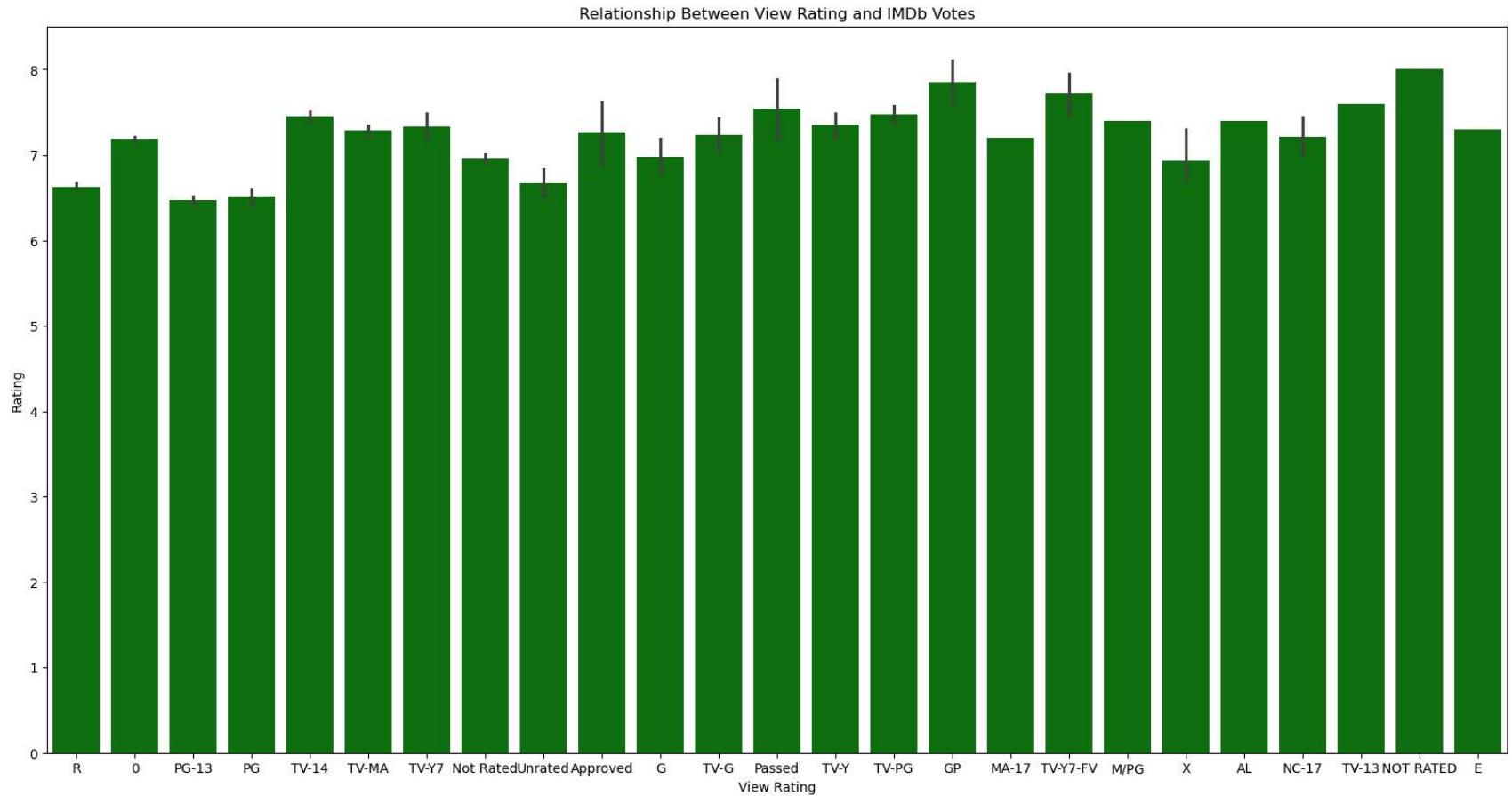
Q8: Introduce a different type of visualization to gain more insights. What Seaborn or

Matplotlib function allows you to create this visualization?

In [163...]

```
import seaborn as sns
import matplotlib.pyplot as plt

# Assuming 'df' is your DataFrame
plt.figure(figsize=(20,10))
sns.barplot(x='View Rating', y='IMDb Score', data=df, color='green')
plt.title("Relationship Between View Rating and IMDb Votes")
plt.xlabel("View Rating")
plt.ylabel("Rating")
plt.show()
```



Q9: How can you display the generated plots? Which Matplotlib function will you use to

showcase these visualizations?

Hint: Use plt.show() after creating each plot to display them.

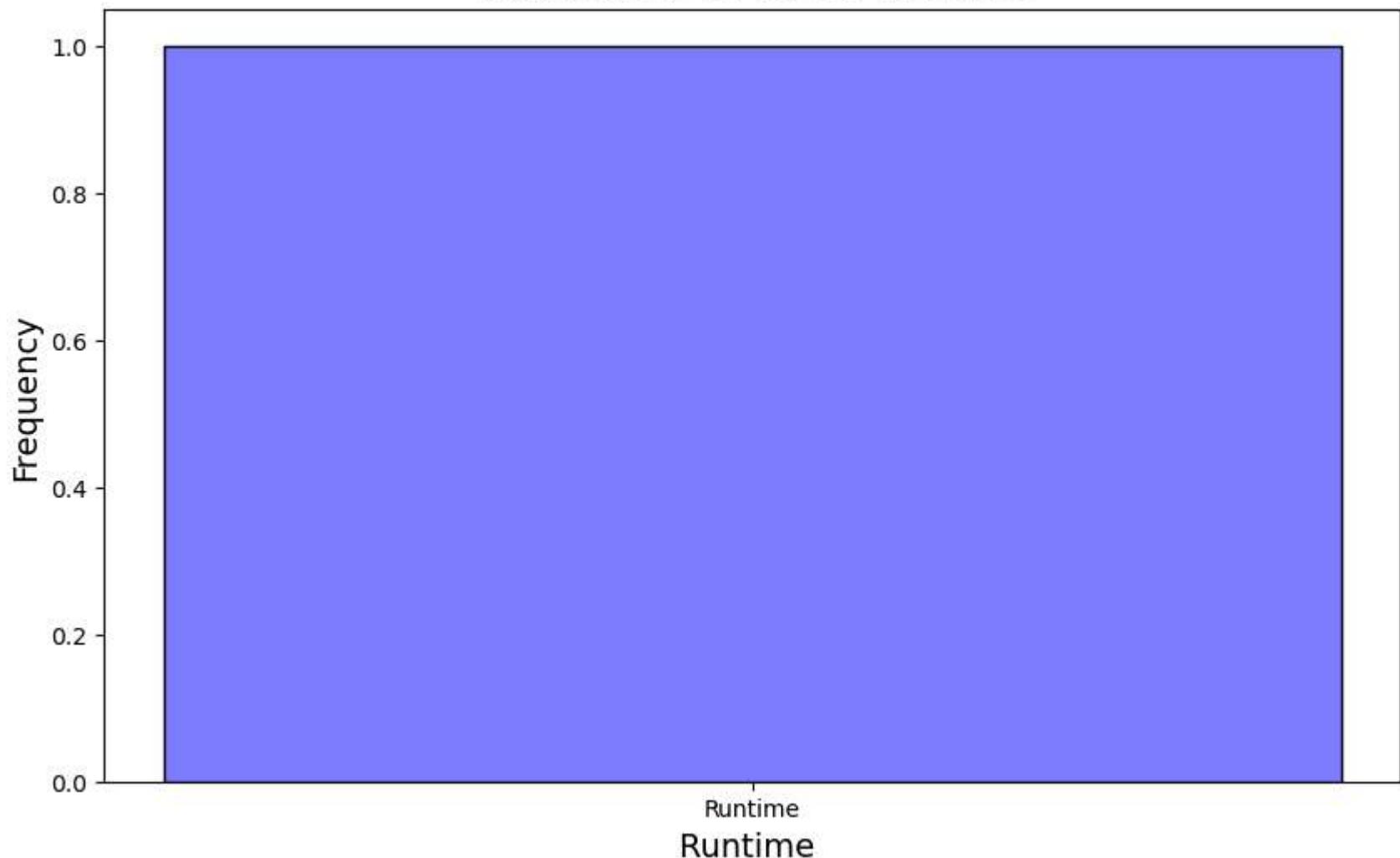
In [167...]

```
import seaborn as sns
import matplotlib.pyplot as plt

plt.figure(figsize=(10, 6))

sns.histplot(data = ['Runtime'], bins=35, kde=True, color='blue')
plt.title('Distribution of Movie Runtime', fontsize=16)
plt.xlabel('Runtime ', fontsize=14)
plt.ylabel('Frequency', fontsize=14)
plt.show()
```

Distribution of Movie Runtime



Q10: Based on the visualizations, what conclusions or recommendations can you make about the Netflix dataset? Consider patterns, trends, or interesting observations. Hint: Look for patterns or interesting observations in the visualizations. Consider how different variables relate to each other and what insights can be drawn.

```
In [ ]: answer:Genre Popularity:  
Visualizations likely showed that genres such as Drama, Comedy, and Crime are the most popular, which aligns with gen
```

Relationship Between IMDb Scores **and** User Ratings:

Scatter plots may reveal a positive correlation between IMDb scores **and** user ratings, indicating that higher rated cor

In []: