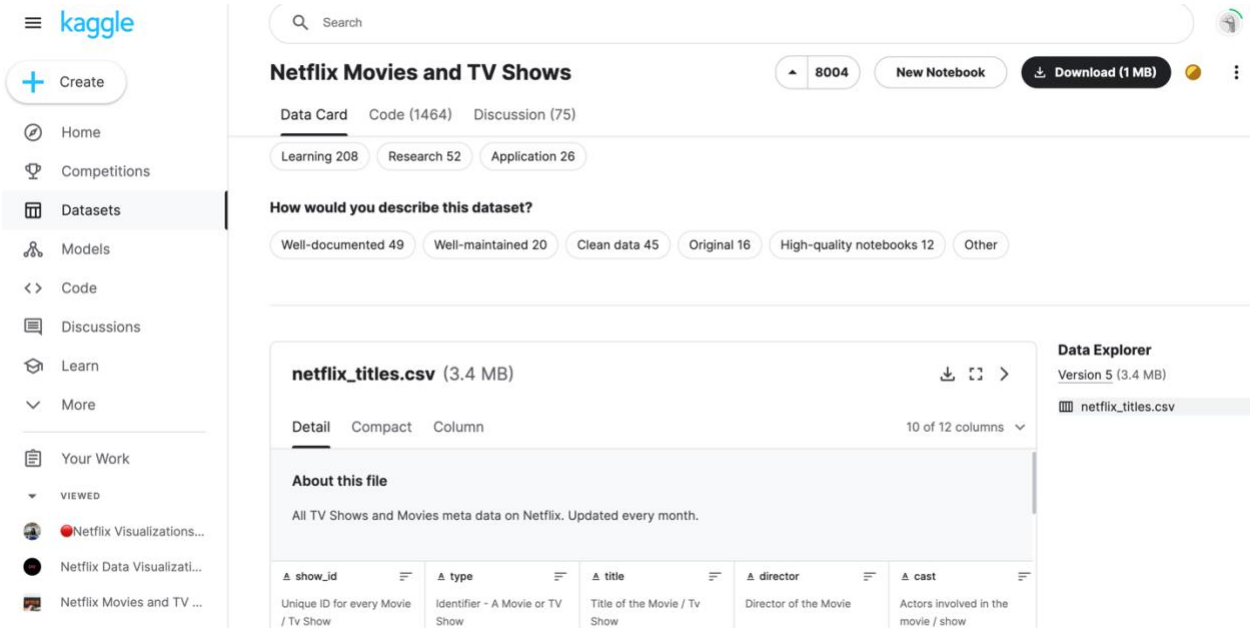
Semester Project Code and Data Source Link and snapshot:

Data Source Link: https://www.kaggle.com/datasets/shivamb/netflix-shows



Code:

```
#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""
Created on Sun Dec  3 08:27:14 2023

@author: bidyabhattarai
"""


############# Importing Necessary Libraries ################

import pandas as pd
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')

import matplotlib.pyplot as plt

######## Loading the dataset #################
```

```
df = pd.read_csv('netflix_titles.csv')
df.head()

############### Displaying Column Information #################
df.columns, df.columns.__len__()


################# Checking the Null values in the dataset ##############
df.count()

###############Creating the copy of dataframe ###############

df_copy = df.copy()

############## Removing rows with null values #################
df_copy.dropna(inplace=True)
df_copy.count()
df_copy.info()


############ Visualizing the count of movies and TV shows ################
c = df_copy.copy().value_counts('type').reset_index()
c.columns = ['Type', 'count']
print(c)


######## plotting a pie chart for the distribution of movies and TV shows#####
plt.pie(c['count'], labels=c['Type'], autopct='%1.1f%%')
plt.show()



######## Extracting release year information ################

top_release=df_copy[['release_year']]

####### sorting and visualizing the count of releases by year ###############
#############################################################################

top_release = top_release.sort_values(by='release_year', ascending=False)
top_release
plt.figure(figsize=(8, 12))
sns.countplot(data=top_release, y='release_year')
plt.xlabel('Count')
```

```
plt.ylabel('release_year')
plt.title('top release')
plt.show()



##################### creating dataframe of movies#######

net_movies=df_copy[df_copy['type']=='Movie']

####### Visualizing the count of movies by rating  ######

sns.countplot(data=net_movies, x='rating', )
plt.title('Movies Rating')
plt.show()

############## Extracting and visualizing the top movie ratings ###############
rating = net_movies.value_counts('rating')
print(rating)
rating[:5].plot(kind='pie')
plt.title('Top 5 Ratings of movies')
plt.show()



############## Extracting and visualizing the top movie genres ###############

genre = net_movies.value_counts('listed_in')
print(genre)
genre[:5].plot(kind='bar')
plt.title('Top 5 Genre of movies')
plt.show()


######### movie count released by years ###############
a = net_movies.copy().value_counts('release_year', ascending=False).reset_index()
a.columns = ['release_year', 'count']
print(a)
sns.scatterplot(data=a, x='release_year',y='count')
plt.title('movie count release by years')
plt.show()

########## creating dataframe of tv shows seprately ######
```

```
TV_shows=df_copy[df_copy['type']=='TV Show']

################## count rated tv shows ####################

sns.countplot(data=TV_shows, x='rating', )
plt.title('TV shows rating')
plt.show()

############## Extracting and visualizing the top movie ratings ##############
rating = TV_shows.value_counts('rating')
print(rating)
rating[:5].plot(kind='pie')
plt.title('Top 5 Ratings of TV_shows')
plt.show()

###### TV_shows count released by years####################
a = TV_shows.copy().value_counts('release_year', ascending=False).reset_index()
a.columns = ['release_year', 'count']
print(a)
sns.scatterplot(data=a, x='release_year',y='count')
plt.show()


#########################################################
######## removing 'min' from the movie duration column ######

net_movies['duration']=net_movies['duration'].str.replace(' min','')
net_movies['duration']=net_movies['duration'].astype(str).astype(int)
net_movies['duration']


###############Plotting a kernel density estimate for movie time duration######

net_movies['duration'].plot(kind='kde')
plt.title('Movie Time Duration')



####################Extracting the number of seasons from TV shows data######

features=['title','duration']
durations= TV_shows[features]

durations['no_of_seasons']=durations['duration'].str.replace(' Season','')
```

```
durations['no_of_seasons']=durations['no_of_seasons'].str.replace('s','')

durations['no_of_seasons']=durations['no_of_seasons'].astype(str).astype(int)

t=['title','no_of_seasons']
top=durations[t]


################ Sorting and visualizing the top 20 TV shows
################ by number of seasons###############

top=top.sort_values(by='no_of_seasons', ascending=False)

top20=top[0:20]
top20.plot(kind='bar',x='title',y='no_of_seasons')
```