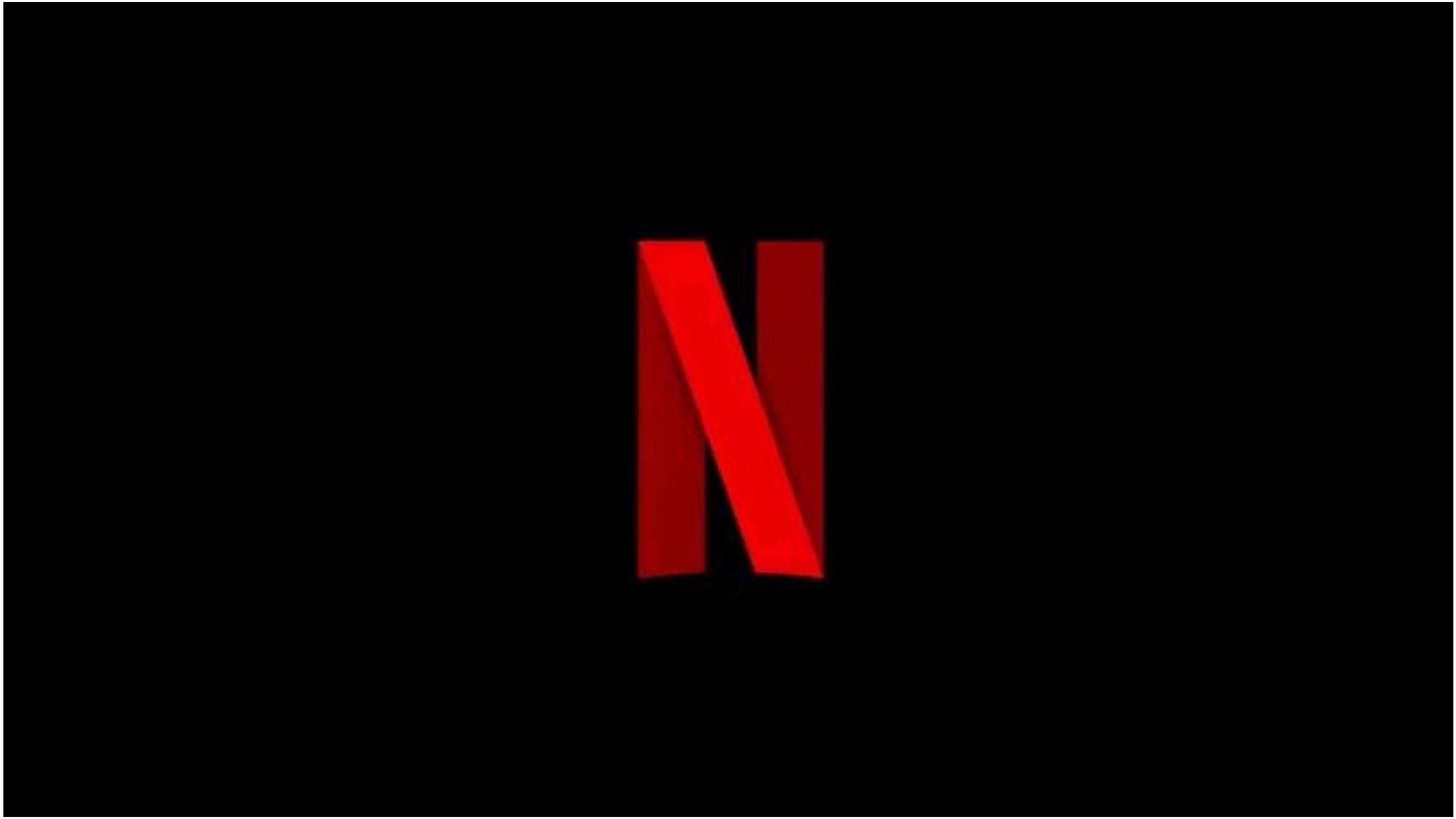

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Run | Code

In [124]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt

df=pd.read_csv(r"C:\\Users\HP\Downloads\Netflix_dataset.csv")
```

In [125]:
```
df.head()
```

Out[125]:

	show_id	type	title	director	cast	country	date_added	release_year	rating	duration	listed_in	description
0	s1	TV Show	3%	NaN	João Miguel, Bianca Comparato, Michel Gomes, R...	Brazil	August 14, 2020	2020	TV-MA	4 Seasons	International TV Shows, TV Dramas, TV Sci-Fi &...	In a future where the elite inhabit an island ...
1	s2	Movie	07:19	Jorge Michel Grau	Demián Bichir, Héctor Bonilla, Oscar Serrano, ...	Mexico	December 23, 2016	2016	TV-MA	93 min	Dramas, International Movies	After a devastating earthquake hits Mexico Cit...
2	s3	Movie	23:59	Gilbert Chan	Tedd Chan, Stella Chung, Henley Hii, Lawrence ...	Singapore	December 20, 2018	2011	R	78 min	Horror Movies, International Movies	When an army recruit is found dead, his fellow...
3	s4	Movie	9	Shane Acker	Elijah Wood, John C. Reilly, Jennifer Connelly...	United States	November 16, 2017	2009	PG-13	80 min	Action & Adventure, Independent Movies, Sci-Fi...	In a postapocalyptic world, rag-doll robots hi...
4	s5	Movie	21	Robert Luketic	Jim Sturgess, Kevin Spacey, Kate Bosworth, Aar...	United States	January 1, 2020	2008	PG-13	123 min	Dramas	A brilliant group of students become card-coun...

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Run Code

In [126]:
```
print(df.describe())
```

```
       release_year
count   7787.000000
mean    2013.932580
std        8.757395
min     1925.000000
25%     2013.000000
50%     2017.000000
75%     2018.000000
max     2021.000000
```

In [127]:
```
print(df.dtypes)
```

```
show_id         object
type            object
title           object
director        object
cast            object
country         object
date_added      object
release_year     int64
rating          object
duration        object
listed_in       object
description     object
dtype: object
```

#number of NA values

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Run Code

In [128]:
```
print(df.isna().sum())
```

```
show_id         0
type            0
title           0
director     2389
cast          718
country       507
date_added     10
release_year    0
rating          7
duration        0
listed_in       0
description     0
dtype: int64
```

In [129]:
```
# removing NA values: for cast and director column replace NA with "No Data"
#                     :for Country , date_added and rating replace NA with "mode of that column"
```

In [130]:
```
df['cast'].replace(np.nan, 'No Data', inplace=True)
df['director'].replace(np.nan, 'No Data', inplace=True)

df['country']=df['country'].fillna(df['country'].mode()[0])
df['date_added']=df['date_added'].fillna(df['date_added'].mode()[0])
df['rating']=df['rating'].fillna(df['rating'].mode()[0])
```

In [131]:
```
print(df.isna().sum())
```

```
show_id         0
type            0
title           0
director        0
cast            0
country         0
date_added      0
release_year    0
rating          0
duration        0
listed_in       0
```

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Run Code

In [132]:
```
#count of TV shows & Movies type
```

In [133]:
```
x=df['type'].value_counts().reset_index()
x
```

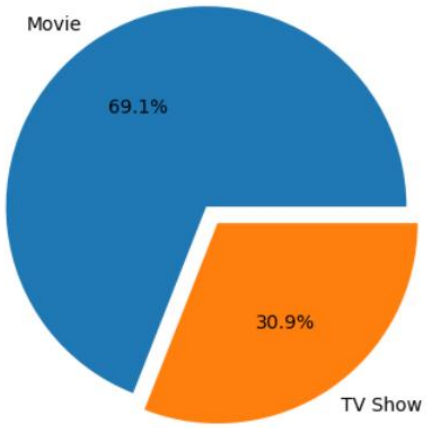
Out[133]:

	index	type
0	Movie	5377
1	TV Show	2410

In [134]:
```
#percentage of TV shows & Movies type
```

In [135]:
```
plt.pie(x['type'],labels=x['index'],autopct="%1.1f%%",explode=[0.1,0])

plt.show()
```



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Run Code

In [136]:
```
# Top 10 country with most content
```

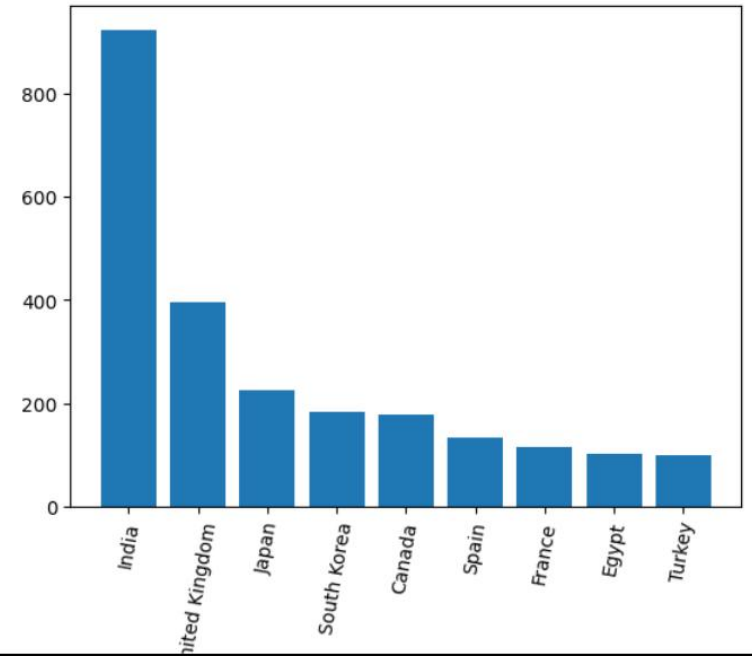
In [137]:
```
df.dropna(subset=['country'],inplace=True)

cnt=df['country'].value_counts()[1:10]

plt.bar(cnt.index, cnt.values)

plt.xticks(rotation=80)

plt.show()
```



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Run Code

In [138]:
```
# years having most content added
```

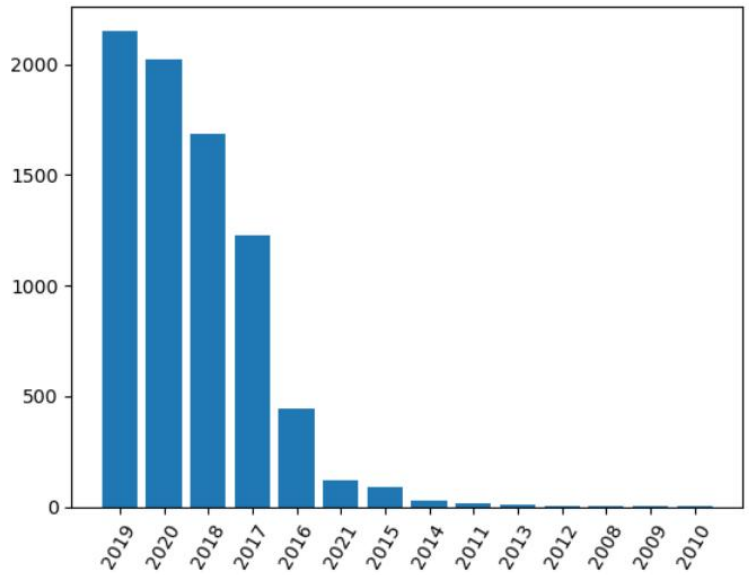
In [139]:
```
df.dropna(subset=['date_added'],inplace=True)

year=df['date_added'].apply(lambda x: x.split(',')[-1].strip()).value_counts()

plt.xticks(rotation=60)

plt.bar(year.index , year.values)
```

Out[139]:
```
<BarContainer object of 14 artists>
```



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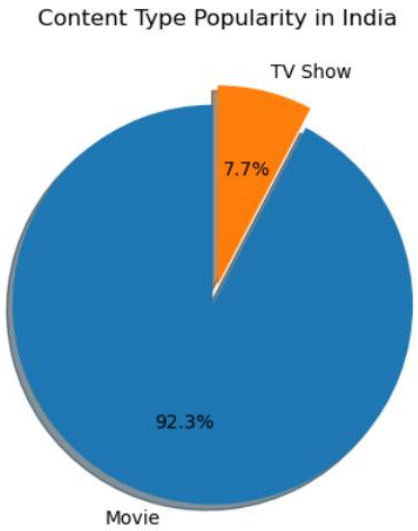
Run Code

In [140]:
```
# most popular content in India

# 1- what kind of content is most popular
```

In [141]:
```
india_data = df[df['country'] == 'India']

content_counts = india_data['type'].value_counts()
plt.pie(content_counts, labels=content_counts.index, autopct='%1.1f%%', shadow=True, startangle=90,explode=[0.1,0])
plt.title('Content Type Popularity in India')
plt.show()
```



In [142]:
```
# 2- What type of rating is more popular. If it's teens or adults or kids.
```

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Run Code

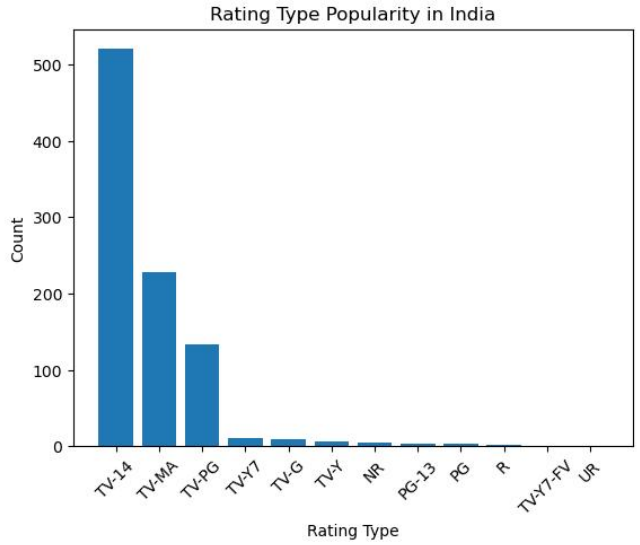
In [142]:
```
# 2- What type of rating is more popular. If it's teens or adults or kids.
```

In [147]:
```
rating_counts = india_data['rating'].value_counts()
plt.bar(rating_counts.index, rating_counts.values)
plt.xlabel('Rating Type')
plt.ylabel('Count')
plt.title('Rating Type Popularity in India')
plt.xticks(rotation=45)

most_popular_content_type = content_counts.idxmax()
most_popular_rating_type = rating_counts.idxmax()

# Step 6: Return the output in tuple format
output_tuple = (most_popular_content_type, most_popular_rating_type)
print(output_tuple)
```

```
('Movie', 'TV-14')
```



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Run Code

Rating Type

In [145]:
```
# Longest movie Duration
```

In [146]:
```
df = df[df['type'] == 'Movie']

df['duration'] = df['duration'].astype(str)

df['duration'] = df['duration'].apply(lambda x: int(x.split()[0]))

mx_indx = df['duration'].idxmax()

print(tuple(df.loc[mx_indx, ['title', 'release_year']]))
```

```
('Black Mirror: Bandersnatch', 2018)
```