In [2]:

```
pip install google-api-python-client
```

```
Collecting google-api-python-client
  Downloading google_api_python_client-2.90.0-py2.py3-none-any.whl (11.4
MB)
                                          0.0/11.4 MB ? eta -:--:--
                                          0.0/11.4 MB 1.4 MB/s eta 0:
00:09
                                          0.1/11.4 MB 1.1 MB/s eta 0:
00:11
                                          0.1/11.4 MB 1.1 MB/s eta 0:
00:11
   -                                      0.3/11.4 MB 1.5 MB/s eta 0:
00:08
   -                                      0.4/11.4 MB 1.6 MB/s eta 0:
00:07
   --                                     0.6/11.4 MB 1.9 MB/s eta 0:
00:06
   --                                     0.7/11.4 MB 2.1 MB/s eta 0:
00:06
   ---                                    1.0/11.4 MB 2.6 MB/s eta 0:
```

In [6]:

```
pip install jupyter notebook
```

```
Requirement already satisfied: jupyter in c:\pavan9\lib\site-packages (1.
0.0)
Requirement already satisfied: notebook in c:\pavan9\lib\site-packages
(6.5.4)
Requirement already satisfied: qtconsole in c:\pavan9\lib\site-packages
(from jupyter) (5.4.3)
Requirement already satisfied: jupyter-console in c:\pavan9\lib\site-pack
ages (from jupyter) (6.6.3)
Requirement already satisfied: nbconvert in c:\pavan9\lib\site-packages
(from jupyter) (7.4.0)
Requirement already satisfied: ipykernel in c:\pavan9\lib\site-packages
(from jupyter) (6.23.1)
Requirement already satisfied: ipywidgets in c:\pavan9\lib\site-packages
(from jupyter) (8.0.6)
Requirement already satisfied: jinja2 in c:\pavan9\lib\site-packages (fro
m notebook) (3.1.2)
Requirement already satisfied: tornado>=6.1 in c:\pavan9\lib\site-package
s (from notebook) (6.3.2)
Requirement already satisfied: pyzmq>=17 in c:\pavan9\lib\site-packages
```

In [7]:

```
pip install pandas
```

Requirement already satisfied: pandas in c:\pavan9\lib\site-packages (2.0.
2)Note: you may need to restart the kernel to use updated packages.

Requirement already satisfied: python-dateutil>=2.8.2 in c:\pavan9\lib\sit
e-packages (from pandas) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in c:\pavan9\lib\site-packages
(from pandas) (2023.3)
Requirement already satisfied: tzdata>=2022.1 in c:\pavan9\lib\site-packag
es (from pandas) (2023.3)
Requirement already satisfied: numpy>=1.21.0 in c:\pavan9\lib\site-package
s (from pandas) (1.24.3)
Requirement already satisfied: six>=1.5 in c:\pavan9\lib\site-packages (fr
om python-dateutil>=2.8.2->pandas) (1.16.0)

In [8]:

```
pip install seaborn
```

Requirement already satisfied: seaborn in c:\pavan9\lib\site-packages (0.1
2.2)
Requirement already satisfied: numpy!=1.24.0,>=1.17 in c:\pavan9\lib\site-
packages (from seaborn) (1.24.3)
Requirement already satisfied: pandas>=0.25 in c:\pavan9\lib\site-packages
(from seaborn) (2.0.2)
Requirement already satisfied: matplotlib!=3.6.1,>=3.1 in c:\pavan9\lib\si
te-packages (from seaborn) (3.7.1)
Requirement already satisfied: contourpy>=1.0.1 in c:\pavan9\lib\site-pack
ages (from matplotlib!=3.6.1,>=3.1->seaborn) (1.1.0)
Requirement already satisfied: cycler>=0.10 in c:\pavan9\lib\site-packages
(from matplotlib!=3.6.1,>=3.1->seaborn) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in c:\pavan9\lib\site-pac
kages (from matplotlib!=3.6.1,>=3.1->seaborn) (4.40.0)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\pavan9\lib\site-pac
kages (from matplotlib!=3.6.1,>=3.1->seaborn) (1.4.4)
Requirement already satisfied: packaging>=20.0 in c:\pavan9\lib\site-packa
ges (from matplotlib!=3.6.1,>=3.1->seaborn) (23.1)
Requirement already satisfied: pillow>=6.2.0 in c:\pavan9\lib\site-package
s (from matplotlib!=3.6.1,>=3.1->seaborn) (9.5.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\pavan9\lib\site-pack
ages (from matplotlib!=3.6.1,>=3.1->seaborn) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in c:\pavan9\lib\site-
packages (from matplotlib!=3.6.1,>=3.1->seaborn) (2.8.2)
Requirement already satisfied: pytz>=2020.1 in c:\pavan9\lib\site-packages
(from pandas>=0.25->seaborn) (2023.3)
Requirement already satisfied: tzdata>=2022.1 in c:\pavan9\lib\site-packag
es (from pandas>=0.25->seaborn) (2023.3)
Requirement already satisfied: six>=1.5 in c:\pavan9\lib\site-packages (fr
om python-dateutil>=2.7->matplotlib!=3.6.1,>=3.1->seaborn) (1.16.0)
Note: you may need to restart the kernel to use updated packages.

In [9]:

```python
from googleapiclient.discovery import build
import pandas as pd
import seaborn as sns
```

```python
api_key='AIzaSyAEuGngkM9dR_yRnCkFTfug2TsIjeeHgBk'
channel_ids=['UCnz-ZXXER4jOvuED5trXfEA',
             'UCLLw7jmFsvfIVaUFsLs8mlQ',
             'UCiT9RITQ9PW6BhXK0y2jaeg',
             'UC7cs8q-gJRlGwj4A80mCmXg',
             'UC2UXDak6o7rBm23k3Vv5dww'
             ]
youtube =build('youtube', 'v3', developerKey=api_key)
```

In [ ]:

```python
# Function to get channel statistics#
```

In [22]:

```python
def get_channel_stats(youtube, channel_id):
    request = youtube.channels().list(
        part='snippet,statistics',
        id=','.join(channel_ids)
    )
    response = request.execute()
    data = dict(
        Channel_name=response['items'][0]['snippet']['title'],
        Subscribers=response['items'][0]['statistics']['subscriberCount'],
        Views=response['items'][0]['statistics']['viewCount'],
        Total_videos=response['items'][0]['statistics']['videoCount']
    )
    return data
```

In [23]:

```python
get_channel_stats(youtube,channel_id)
```

Out[23]:

```
{'Channel_name': 'techTFQ',
 'Subscribers': '210000',
 'Views': '10437508',
 'Total_videos': '89'}
```

In [24]:

```python
api_key='AIzaSyAEuGngkM9dR_yRnCkFTfug2TsIjeeHgBk'
channel_ids=['UCnz-ZXXER4jOvuED5trXfEA',
             'UCLLw7jmFsvfIVaUFsLs8mlQ',
             'UCiT9RITQ9PW6BhXK0y2jaeg',
             'UC2UXDak6o7rBm23k3Vv5dww'
             ]
youtube =build('youtube', 'v3', developerKey=api_key)
```

In [33]:

```python
def get_channel_stats(youtube, channel_ids):
    all_data = []
    request = youtube.channels().list(
        part='snippet,statistics',
        id=','.join(channel_ids)
    )
    response = request.execute()
    for item in response['items']:
        data = {
            'Channel_name': item['snippet']['title'],
            'Subscribers': item['statistics']['subscriberCount'],
            'Views': item['statistics']['viewCount'],
            'Total_videos': item['statistics']['videoCount']
        }
        all_data.append(data)
    return all_data
```

In [35]:

```python
channel_statistics=get_channel_stats(youtube,channel_ids)
```

In [36]:

```python
channel_data=pd.DataFrame(channel_statistics)
```

In [37]:

```python
print(channel_data)
```

```
    Channel_name  Subscribers      Views  Total_videos
0  Luke Barousse       356000   16287749           135
1       Ken Jee       245000    8195281           277
2     Tina Huang       551000   24007599           126
3        techTFQ       210000   10437508            89
```

In [38]:

```python
channel_data.dtypes
```

Out[38]:

```
Channel_name    object
Subscribers     object
Views           object
Total_videos    object
dtype: object
```
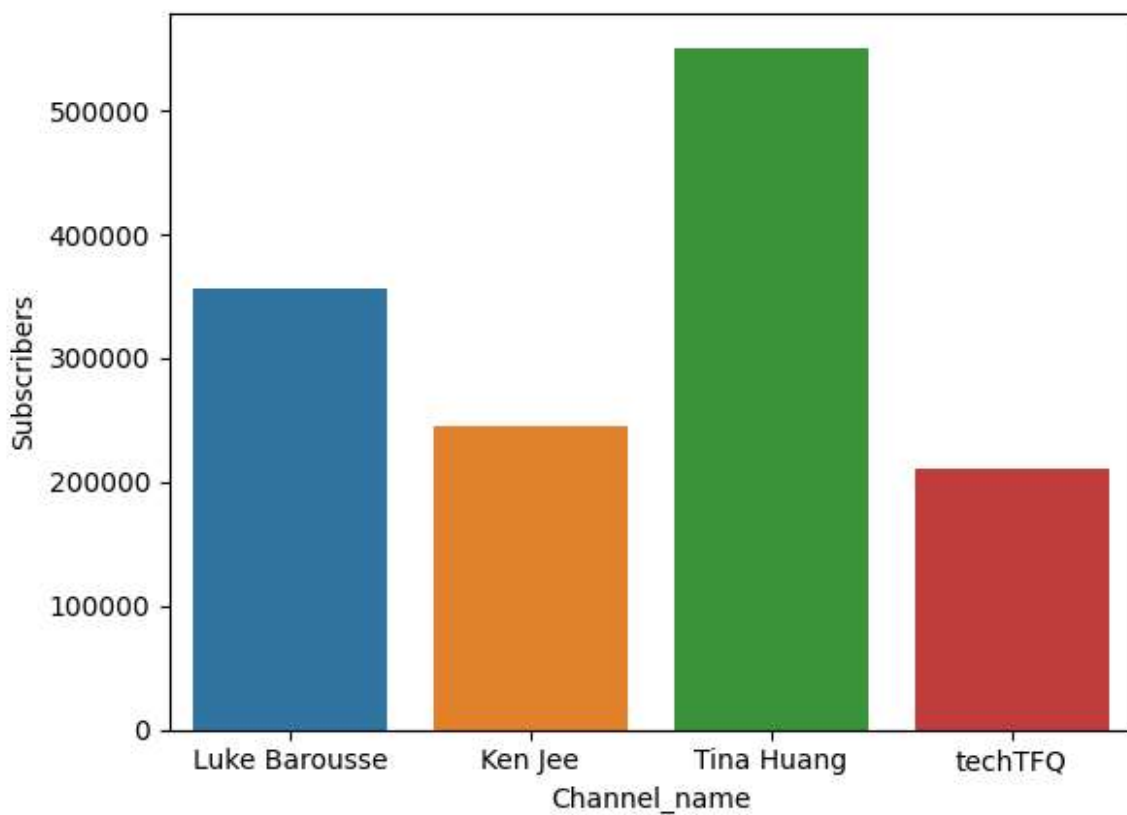
In [39]:

```python
channel_data['Subscribers'] = pd.to_numeric(channel_data['Subscribers'])
channel_data['Views'] = pd.to_numeric(channel_data['Views'])
channel_data['Total_videos'] = pd.to_numeric(channel_data['Total_videos'])
channel_data.dtypes
```

Out[39]:

```
Channel_name    object
Subscribers      int64
Views            int64
Total_videos     int64
dtype: object
```
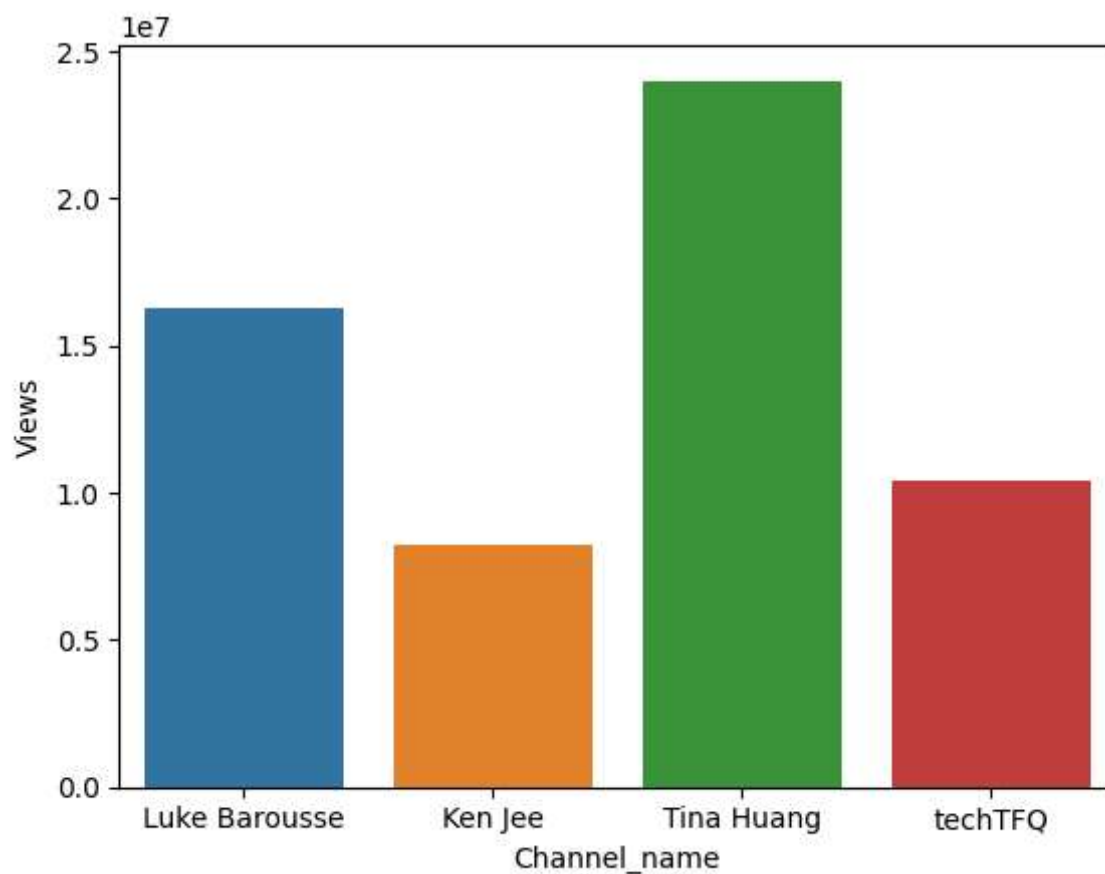
In [40]:

```python
ax =sns.barplot(x='Channel_name',y='Subscribers',data=channel_data)
```
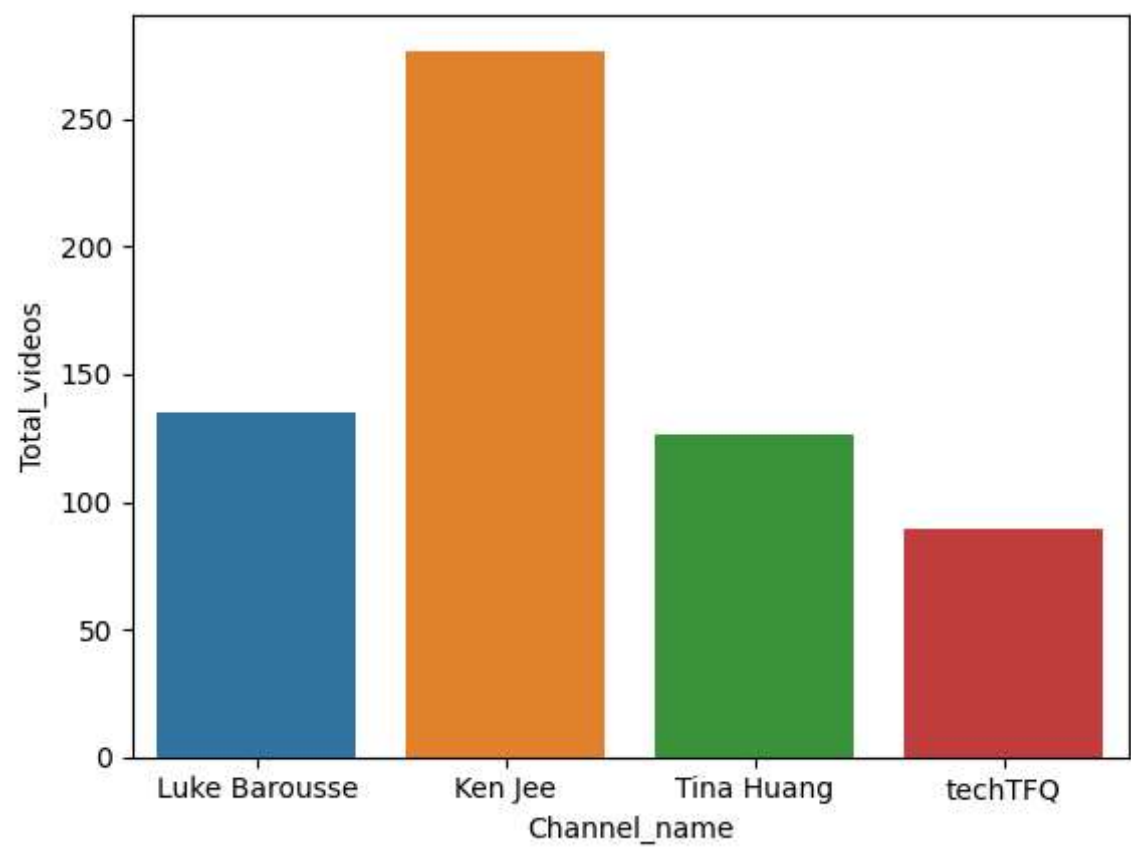
In [42]:

```
ax =sns.barplot(x='Channel_name',y='Views',data=channel_data)
```

In [43]:

```python
ax =sns.barplot(x='Channel_name',y='Total_videos',data=channel_data)
```


In [ ]:

In [ ]:

In [ ]:

In [ ]:

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In [ ]:

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In [ ]: