Install required libraries

In [ ]:
```
pip install --upgrade google-api-python-client
```

In [31]:
```
from googleapiclient.discovery import build
import pandas as pd
import seaborn as sns
```

Youtube channel API Key

In [32]:
```
api_key = 'AIzaSyAi59WP81vInKTCSjH-xqRXzknX-IcoOqk'
channel_id = ["UCNU_lfiiWBdtULKOw6X0Dig",
              "UCCWi3hpnq_Pe03nGxuS7isg",
              "UCh9nVJoWXmFb7sLApWGcLPQ",
               "UCnz-ZXXER4jOvuED5trXfEA"]
yt = build('youtube','v3',developerKey=api_key)
```

In [33]:
```
def get_channael_stats(yt,channel_id):
    all_data = []
    request = yt.channels().list(part='snippet,contentDetails,statistics', id= channel
    response = request.execute()
    for i in range (len(response['items'])):
        data = dict(channel_name = response['items'][i]['snippet']['title'],
                subscriber = response['items'][i]['statistics']['subscriberCount'],
                Views = response['items'][i]['statistics']['viewCount'],
                Total_videos = response['items'][i]['statistics']['videoCount'],
                playlist_id = response['items'][i]['contentDetails']['relatedPlaylists
        all_data.append(data)
    return all_data
```

In [34]:
```
channel_details=get_channael_stats(yt,channel_id)
```

To get Channel details

In [35]:
```
channel_data=pd.DataFrame(channel_details)
channel_data
```

Out[35]:

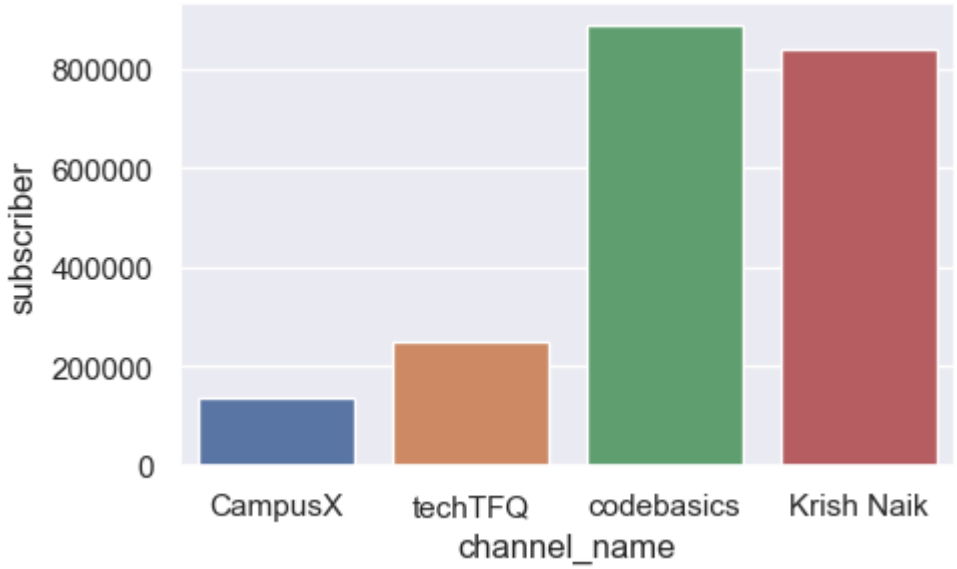
	channel_name	subscriber	Views	Total_videos	playlist_id
0	CampusX	137000	13783775	1149	UUCWi3hpnq_Pe03nGxuS7isg
1	techTFQ	250000	13060789	99	UUnz-ZXXER4jOvuED5trXfEA
2	codebasics	887000	62829597	724	UUh9nVJoWXmFb7sLApWGcLPQ
3	Krish Naik	838000	84745706	1743	UUNU_lfiiWBdtULKOw6X0Dig

In [36]:
```
channel_data.dtypes
```

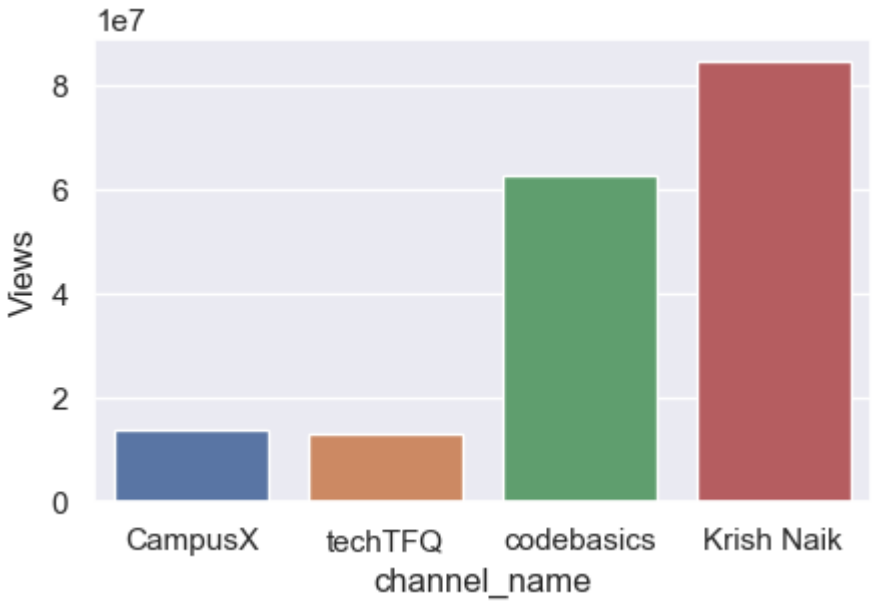
Out[36]:
```
channel_name    object
subscriber      object
Views           object
Total_videos    object
playlist_id     object
dtype: object
```

In [37]:
```
channel_data['subscriber']=pd.to_numeric(channel_data['subscriber'])
channel_data['Views']=pd.to_numeric(channel_data['Views'])
channel_data['Total_videos']=pd.to_numeric(channel_data['Total_videos'])
```

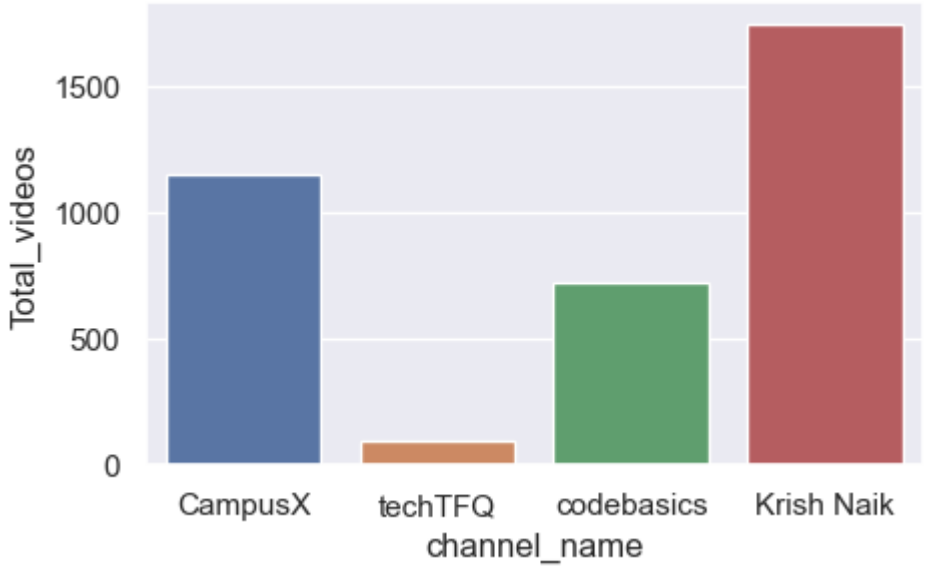
In [38]:
```
sns.set(rc={'figure.figsize':(5,3)})
a=sns.barplot(x='channel_name',y='subscriber',data=channel_data)
```



In [39]:
```
a=sns.barplot(x='channel_name',y='Views',data=channel_data)
```



In [40]:
```
a=sns.barplot(x='channel_name',y='Total_videos',data=channel_data)
```



To get video details

In [41]:
```
playList_id='UUh9nVJoWXmFb7sLApWGcLPQ'
```

In [42]:
```
def get_video_ids(youtube,playlist_id):
    request = yt.playlistItems().list(
                part='contentDetails',
                playlistId=playlist_id,
                maxResults=50)
    response = request.execute()

    video_ids = []

    for i in range (len(response['items'])):
        video_ids.append(response['items'][i]['contentDetails']['videoId'])

    next_Page_Token=response.get('nextPageToken')
    more_pages = True
    while more_pages :
        if next_Page_Token is None:
            more_pages = False
        else:
            request = yt.playlistItems().list(
                    part='contentDetails',
                    playlistId=playlist_id,
                    maxResults=50,
                    pageToken=next_Page_Token)
            response = request.execute()
            for i in range (len(response['items'])):
                video_ids.append(response['items'][i]['contentDetails']['videoId'])
            next_Page_Token=response.get('nextPageToken')



    return video_ids
```

In [43]:
```
video_ids= get_video_ids(yt,playList_id)
```

In [44]:
```
def get_video_details(youtube, video_ids):
    all_video_data=[]
    for i in range (0,len(video_ids),50):
        request = yt.videos().list(
                part='snippet,statistics',
                id=','.join(video_ids[i:i+50]))
        response = request.execute()
        for j in response['items']:
            video_stat = dict(Title=j['snippet']['title'],
                              Published = j['snippet']['publishedAt'],
                              Like_Count = j['statistics']['likeCount'],
                              Comment_Count = j['statistics']['commentCount'],
                              View_Count = j['statistics']['viewCount']

                             )
            all_video_data.append(video_stat)

    return all_video_data
```

In [45]:
```
video_details=get_video_details(yt, video_ids)
```

In [46]:
```
videoData=pd.DataFrame(video_details)
videoData.dtypes
```

Out[46]:
```
Title            object
Published        object
Like_Count       object
Comment_Count    object
View_Count       object
dtype: object
```

In [47]:
```
videoData['Published']=pd.to_datetime(videoData['Published']).dt.date
videoData['Like_Count']=pd.to_numeric(videoData['Like_Count'])
videoData['Comment_Count']=pd.to_numeric(videoData['Comment_Count'])
videoData['View_Count']=pd.to_numeric(videoData['View_Count'])
```

In [48]:
```
videoData
```

Out[48]:

	Title	Published	Like_Count	Comment_Count	View_Count
0	Data Analyst or Data Scientist?	2023-11-20	192	8	3551
1	Your salary increment depends on THIS!	2023-11-19	174	0	3353
2	OLTP vs. OLAP!	2023-11-18	174	1	2222
3	Surprise Announcement 📢	2023-11-17	218	20	4235
4	STOP being Data Analyst 1.0	2023-11-16	645	16	7692
...	...	...	...	...	...
720	Python Tutorial - 5. Lists	2015-12-20	318	55	34643
721	Python Tutorial - 4. Strings	2015-12-20	317	28	28567
722	Python Tutorial - 3. Numbers	2015-12-20	321	31	32387
723	Python Tutorial - 2. Variables	2015-12-20	334	24	42512
724	Python Tutorial - 1. Install python on windows	2015-12-20	374	16	47700

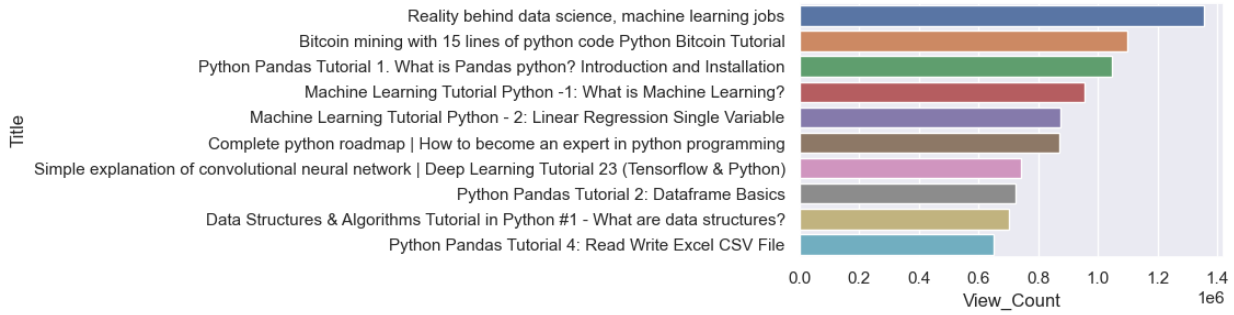
725 rows × 5 columns

In [49]:
```
top10_videos=videoData.sort_values(by='View_Count',ascending=False).head(10)
top10_videos
```

Out[49]:

	Title	Published	Like_Count	Comment_Count	View_Count
252	Reality behind data science, machine learning ...	2022-02-16	62782	456	1354770
401	Bitcoin mining with 15 lines of python code Py...	2021-01-03	31755	2736	1096659
653	Python Pandas Tutorial 1. What is Pandas pytho...	2017-01-21	11713	380	1046944
622	Machine Learning Tutorial Python -1: What is M...	2018-06-30	10775	218	954685
621	Machine Learning Tutorial Python - 2: Linear R...	2018-07-01	11580	1231	875592
472	Complete python roadmap | How to become an exp...	2020-09-13	30224	1035	869328
458	Simple explanation of convolutional neural net...	2020-10-14	16692	654	742622
652	Python Pandas Tutorial 2: Dataframe Basics	2017-01-28	11001	440	724397
557	Data Structures & Algorithms Tutorial in Pytho...	2020-03-07	11660	250	700030
650	Python Pandas Tutorial 4: Read Write Excel CSV...	2017-02-04	8655	507	648547

In [50]:
```
a1=sns.barplot(x='View_Count', y='Title',data=top10_videos)
```



In [ ]:

In [ ]:

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