

Performing some operations in pandas to make data more convenient to use and easy to analyse on TABLEAU.

```
In [2]: import pandas as pd
import numpy as np

In [5]: data = pd.read_csv(r"C:\Users\del1\Downloads\tseries.csv")

In [6]: data

Out[6]:
```

	video_id	channel_id	published_date	video_title	video_description	likes	dislikes	views	comment_count
0	ZxiETzt9icM	UCq-Fj5jknLsUf-MWSy4_brA	2019-08-31T11:33:34Z	Khairiyat Video Chhichhore Nitesh Tiwari ...	Here comes the soulful number "Khairiyat" from...	843757	23218	55188188	24852
1	9iIX4PBpIAY	UCq-Fj5jknLsUf-MWSy4_brA	2018-07-28T08:45:00Z	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	Presenting "Kar Har Maidaan Fateh" Full Video ...	812251	45551	121099153	21200
2	2mWaqSc3U7k	UCq-Fj5jknLsUf-MWSy4_brA	2011-12-19T09:24:34Z	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	Enjoy the latest song "Phir Se Ud Chala" starr...	278045	9854	55104273	7445
3	sT6ywcPNTWk	UCq-Fj5jknLsUf-MWSy4_brA	2016-08-07T12:05:35Z	Freaky Ali Official Trailer Nawazuddin Siddi...	Freaky Ali is an inspirational film of an unde...	84800	2549	11894653	4478
4	hMSMe3T98IE	UCq-Fj5jknLsUf-MWSy4_brA	2018-02-17T14:22:06Z	Khalibali Song Making Video Padmaavat Ranv...	Presenting the behind the scenes of video song...	114911	3291	8653083	3683
...
319	qByn-XWA8eY	UCq-Fj5jknLsUf-MWSy4_brA	2016-03-11T13:20:30Z	HATE STORY 3 MOVIE CLIPS 2- Beauty and Brains,...	T-Series presents FILMY FRIDAY Show - This wee...	15435	1663	4851632	253
320	_bT3FsN-zwA	UCq-Fj5jknLsUf-MWSy4_brA	2020-05-05T11:30:11Z	Street Dancer 3D : Garmi Remix Varun D, Shra...	Presenting the remix video for the song "Garmi...	13446	1563	575122	949
321	66mrE9gDVfg	UCq-Fj5jknLsUf-MWSy4_brA	2015-04-18T10:15:44Z	'Desi Look' Remix FULL VIDEO Song Sunny Leon...	Watch 'Desi Look' Remix Full VIDEO Song from G...	15261	2614	10365672	534
322	70-26p9lJ4	UCq-Fj5jknLsUf-MWSy4_brA	2012-03-28T14:18:22Z	Chehra Tera Dil Mein Mahe Jaan Latest Full Vid...	Watch the full video for the latest song "Che...	103290	52612	157133078	2658
323	TQmLiXJmZg	UCq-Fj5jknLsUf-MWSy4_brA	2015-10-15T13:26:34Z	'Hate Story 3' Motion Poster A T-Series Film	T-Series Films Presents the motion poster of b...	1013	193	536090	73

324 rows × 9 columns

Data Cleaning

```
In [7]: data.head()

Out[7]:
```

	video_id	channel_id	published_date	video_title	video_description	likes	dislikes	views	comment_count
0	ZxiETzt9icM	UCq-Fj5jknLsUf-MWSy4_brA	2019-08-31T11:33:34Z	Khairiyat Video Chhichhore Nitesh Tiwari ...	Here comes the soulful number "Khairiyat" from...	843757	23218	55188188	24852
1	9iIX4PBpIAY	UCq-Fj5jknLsUf-MWSy4_brA	2018-07-28T08:45:00Z	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	Presenting "Kar Har Maidaan Fateh" Full Video ...	812251	45551	121099153	21200
2	2mWaqSc3U7k	UCq-Fj5jknLsUf-MWSy4_brA	2011-12-19T09:24:34Z	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	Enjoy the latest song "Phir Se Ud Chala" starr...	278045	9854	55104273	7445
3	sT6ywcPNTWk	UCq-Fj5jknLsUf-MWSy4_brA	2016-08-07T12:05:35Z	Freaky Ali Official Trailer Nawazuddin Siddi...	Freaky Ali is an inspirational film of an unde...	84800	2549	11894653	4478
4	hMSMe3T98IE	UCq-Fj5jknLsUf-MWSy4_brA	2018-02-17T14:22:06Z	Khalibali Song Making Video Padmaavat Ranv...	Presenting the behind the scenes of video song...	114911	3291	8653083	3683

Removing irrelevant columns

```
In [8]: data.drop(columns = ['video_id','channel_id'], inplace = True)

In [9]: data.head()

Out[9]:
```

	published_date	video_title	video_description	likes	dislikes	views	comment_count
0	2019-08-31T11:33:34Z	Khairiyat Video Chhichhore Nitesh Tiwari ...	Here comes the soulful number "Khairiyat" from...	843757	23218	55188188	24852
1	2018-07-28T08:45:00Z	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	Presenting "Kar Har Maidaan Fateh" Full Video ...	812251	45551	121099153	21200
2	2011-12-19T09:24:34Z	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	Enjoy the latest song "Phir Se Ud Chala" starr...	278045	9854	55104273	7445
3	2016-08-07T12:05:35Z	Freaky Ali Official Trailer Nawazuddin Siddi...	Freaky Ali is an inspirational film of an unde...	84800	2549	11894653	4478
4	2018-02-17T14:22:06Z	Khalibali Song Making Video Padmaavat Ranv...	Presenting the behind the scenes of video song...	114911	3291	8653083	3683

Checking for Null values.

```
In [11]: data.isnull().sum()

Out[11]:
published_date    0
video_title       0
video_description  0
likes             0
dislikes          0
views            0
comment_count     0
dtype: int64

In [12]: data.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 324 entries, 0 to 323
Data columns (total 7 columns):
#   Column              Non-Null Count  Dtype
---  ---
0   published_date      324 non-null   object
1   video_title         324 non-null   object
2   video_description    324 non-null   object
3   likes               324 non-null   int64
4   dislikes            324 non-null   int64
5   views               324 non-null   int64
6   comment_count       324 non-null   int64
dtypes: int64(4), object(3)
memory usage: 17.8+ KB

In [13]: data.head()

Out[13]:
```

	published_date	video_title	video_description	likes	dislikes	views	comment_count
0	2019-08-31T11:33:34Z	Khairiyat Video Chhichhore Nitesh Tiwari ...	Here comes the soulful number "Khairiyat" from...	843757	23218	55188188	24852
1	2018-07-28T08:45:00Z	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	Presenting "Kar Har Maidaan Fateh" Full Video ...	812251	45551	121099153	21200
2	2011-12-19T09:24:34Z	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	Enjoy the latest song "Phir Se Ud Chala" starr...	278045	9854	55104273	7445
3	2016-08-07T12:05:35Z	Freaky Ali Official Trailer Nawazuddin Siddi...	Freaky Ali is an inspirational film of an unde...	84800	2549	11894653	4478
4	2018-02-17T14:22:06Z	Khalibali Song Making Video Padmaavat Ranv...	Presenting the behind the scenes of video song...	114911	3291	8653083	3683

Making published_date more clear

```
In [14]: import datetime
i=0
for i in range(data.shape[0]):
    date_time = datetime.datetime.strptime(data['published_date'].at[i], '%Y-%m-%dT%H:%M:%SZ')
    data['published_date'].at[i] = date_time
    i = i+1

In [15]: data.head()

Out[15]:
```

	published_date	video_title	video_description	likes	dislikes	views	comment_count
0	2019-08-31 11:33:34	Khairiyat Video Chhichhore Nitesh Tiwari ...	Here comes the soulful number "Khairiyat" from...	843757	23218	55188188	24852
1	2018-07-28 08:45:00	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	Presenting "Kar Har Maidaan Fateh" Full Video ...	812251	45551	121099153	21200
2	2011-12-19 09:24:34	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	Enjoy the latest song "Phir Se Ud Chala" starr...	278045	9854	55104273	7445
3	2016-08-07 12:05:35	Freaky Ali Official Trailer Nawazuddin Siddi...	Freaky Ali is an inspirational film of an unde...	84800	2549	11894653	4478
4	2018-02-17 14:22:06	Khalibali Song Making Video Padmaavat Ranv...	Presenting the behind the scenes of video song...	114911	3291	8653083	3683

Dropping one more irrelevant column

```
In [16]: data.drop(columns = ['video_description'], inplace = True)

In [17]: data.head()

Out[17]:
```

	published_date	video_title	likes	dislikes	views	comment_count
0	2019-08-31 11:33:34	Khairiyat Video Chhichhore Nitesh Tiwari ...	843757	23218	55188188	24852
1	2018-07-28 08:45:00	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	812251	45551	121099153	21200
2	2011-12-19 09:24:34	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	278045	9854	55104273	7445
3	2016-08-07 12:05:35	Freaky Ali Official Trailer Nawazuddin Siddi...	84800	2549	11894653	4478
4	2018-02-17 14:22:06	Khalibali Song Making Video Padmaavat Ranv...	114911	3291	8653083	3683

Separating days, months and year from published_date column.

```
In [19]: data.published_date = pd.to_datetime(data.published_date)

In [20]: data.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 324 entries, 0 to 323
Data columns (total 6 columns):
#   Column              Non-Null Count  Dtype
---  ---
0   published_date      324 non-null   datetime64[ns]
1   video_title         324 non-null   object
2   likes               324 non-null   int64
3   dislikes            324 non-null   int64
4   views               324 non-null   int64
5   comment_count       324 non-null   int64
dtypes: datetime64[ns](1), int64(4), object(1)
memory usage: 15.3+ KB

In [33]: data.insert(6,'days',data.published_date.dt.day)
data.insert(7,'months',data.published_date.dt.month)
data.insert(8,'year',data.published_date.dt.year)

In [35]: data.head()

Out[35]:
```

	published_date	video_title	likes	dislikes	views	comment_count	days	months	year
0	2019-08-31 11:33:34	Khairiyat Video Chhichhore Nitesh Tiwari ...	843757	23218	55188188	24852	31	8	2019
1	2018-07-28 08:45:00	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	812251	45551	121099153	21200	28	7	2018
2	2011-12-19 09:24:34	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	278045	9854	55104273	7445	19	12	2011
3	2016-08-07 12:05:35	Freaky Ali Official Trailer Nawazuddin Siddi...	84800	2549	11894653	4478	7	8	2016
4	2018-02-17 14:22:06	Khalibali Song Making Video Padmaavat Ranv...	114911	3291	8653083	3683	17	2	2018

Creating separate column for date.

```
In [37]: data['Date']=data.apply(lambda x: '%s-%s-%s' % (x['days'],x['months'],x['year'])),axis=1)

In [38]: data.head()

Out[38]:
```

	published_date	video_title	likes	dislikes	views	comment_count	days	months	year	Date
0	2019-08-31 11:33:34	Khairiyat Video Chhichhore Nitesh Tiwari ...	843757	23218	55188188	24852	31	8	2019	31-8-2019
1	2018-07-28 08:45:00	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	812251	45551	121099153	21200	28	7	2018	28-7-2018
2	2011-12-19 09:24:34	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	278045	9854	55104273	7445	19	12	2011	19-12-2011
3	2016-08-07 12:05:35	Freaky Ali Official Trailer Nawazuddin Siddi...	84800	2549	11894653	4478	7	8	2016	7-8-2016
4	2018-02-17 14:22:06	Khalibali Song Making Video Padmaavat Ranv...	114911	3291	8653083	3683	17	2	2018	17-2-2018

```
In [39]: data.drop(columns = ['published_date'], inplace = True)

In [40]: data.head()

Out[40]:
```

	video_title	likes	dislikes	views	comment_count	days	months	year	Date
0	Khairiyat Video Chhichhore Nitesh Tiwari ...	843757	23218	55188188	24852	31	8	2019	31-8-2019
1	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	812251	45551	121099153	21200	28	7	2018	28-7-2018
2	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	278045	9854	55104273	7445	19	12	2011	19-12-2011
3	Freaky Ali Official Trailer Nawazuddin Siddi...	84800	2549	11894653	4478	7	8	2016	7-8-2016
4	Khalibali Song Making Video Padmaavat Ranv...	114911	3291	8653083	3683	17	2	2018	17-2-2018

Extracting only title from video_title.

```
In [43]: data['Title'] = data.video_title.str.split('|',expand=True)[0]

In [44]: data.head()

Out[44]:
```

	video_title	likes	dislikes	views	comment_count	days	months	year	Date	Title
0	Khairiyat Video Chhichhore Nitesh Tiwari ...	843757	23218	55188188	24852	31	8	2019	31-8-2019	Khairiyat Video
1	Sanju: KAR HAR MAIDAAN FATEH Full Video Song ...	812251	45551	121099153	21200	28	7	2018	28-7-2018	Sanju: KAR HAR MAIDAAN FATEH Full Video Song
2	"Phir Se Ud Chala Full Song Rockstar" Ranbir...	278045	9854	55104273	7445	19	12	2011	19-12-2011	"Phir Se Ud Chala Full Song Rockstar"
3	Freaky Ali Official Trailer Nawazuddin Siddi...	84800	2549	11894653	4478	7	8	2016	7-8-2016	Freaky Ali Official Trailer
4	Khalibali Song Making Video Padmaavat Ranv...	114911	3291	8653083	3683	17	2	2018	17-2-2018	Khalibali Song Making Video

Finally, data is ready to analyse on TABLEAU.

```
In [45]: data.to_csv(r"C:\Users\del1\Desktop\New folder\T-Series_data.csv")

In [ ]:
```