Personal Data Analyzer: Netflix

In [1]:
```
import pandas as pd
```

In [2]:
```
df = pd.read_csv('ViewingActivity.csv')
```

In [3]:
```
df.shape
```

Out[3]:
```
(1810, 10)
```

In [4]:
```
df.head(2)
```

Out[4]:

	Profile Name	Start Time	Duration	Attributes	Title	Supplemental Video Type	Device Type	Bookmark	Latest Bookmark	Country
0	Akki4A	11/7/2020 16:01	0:00:59	Autoplayed: user action: None;	Friends: Season 6: The One with Mac and C.H.E....	NaN	Chrome PC (Cadmium)	0:00:59	0:00:59	IN (India)
1	Akki4A	11/7/2020 15:35	0:18:18	NaN	Friends: Season 6: The One with Joey's Fridge ...	NaN	Chrome PC (Cadmium)	0:21:39	0:21:39	IN (India)

In [5]:
```
df = df.drop(['Profile Name','Attributes','Supplemental Video Type','Device Type','Bookmark','Latest Bookmark','Count
df.head(2)
```

Out[5]:

	Start Time	Duration	Title
0	11/7/2020 16:01	0:00:59	Friends: Season 6: The One with Mac and C.H.E....
1	11/7/2020 15:35	0:18:18	Friends: Season 6: The One with Joey's Fridge ...

In [6]:
```
df.dtypes
```

Out[6]:
```
Start Time    object
Duration      object
Title         object
dtype: object
```

In [7]:
```
df['Start Time'] = pd.to_datetime(df['Start Time'], utc = True)
df.dtypes
```

Out[7]:
```
Start Time    datetime64[ns, UTC]
Duration                   object
Title                      object
dtype: object
```

In [8]:
```
# change the Start Time column into the dataframe's index
df = df.set_index('Start Time')

# convert from UTC timezone to Asian/Kolkata time
df.index = df.index.tz_convert('Asia/Kolkata')

# reset the index so that Start Time becomes a column again
df = df.reset_index()

#double-check that it worked
df.head(1)
```

Out[8]:

	Start Time	Duration	Title
0	2020-11-07 21:31:00+05:30	0:00:59	Friends: Season 6: The One with Mac and C.H.E....

In [9]:
```
df.dtypes
```

Out[9]:
```
Start Time    datetime64[ns, Asia/Kolkata]
Duration                           object
Title                              object
dtype: object
```

In [10]:
```
df['Duration'] = pd.to_timedelta(df['Duration'])
df.dtypes
```

Out[10]:
```
Start Time    datetime64[ns, Asia/Kolkata]
Duration                  timedelta64[ns]
Title                              object
dtype: object
```

In [11]:
```
df.head(1)
```

Out[11]:

	Start Time	Duration	Title
0	2020-11-07 21:31:00+05:30	0 days 00:00:59	Friends: Season 6: The One with Mac and C.H.E....

In [12]:
```
# create a new dataframe called star that that takes from df
# only the rows in which the Title column contains 'Friends'
star = df[df['Title'].str.contains('Friends', regex=False)]
```

In [13]:
```
star.shape
```

Out[13]:
```
(453, 3)
```

In [14]:
```
star = star[(star['Duration']> '0 days 00:01:00')]
star.shape
```

Out[14]:
```
(385, 3)
```

This is How Much Time i have spent watching Friends

In [15]:
```
star['Duration'].sum()
```

Out[15]:
```
Timedelta('2 days 18:29:14')
```

In [16]:
```
star['weekday'] = star['Start Time'].dt.weekday
star['hour'] = star['Start Time'].dt.hour

# check to make sure the columns were added correctly
star.head(1)
```

Out[16]:

	Start Time	Duration	Title	weekday	hour
1	2020-11-07 21:05:00+05:30	0 days 00:18:18	Friends: Season 6: The One with Joey's Fridge ...	5	21

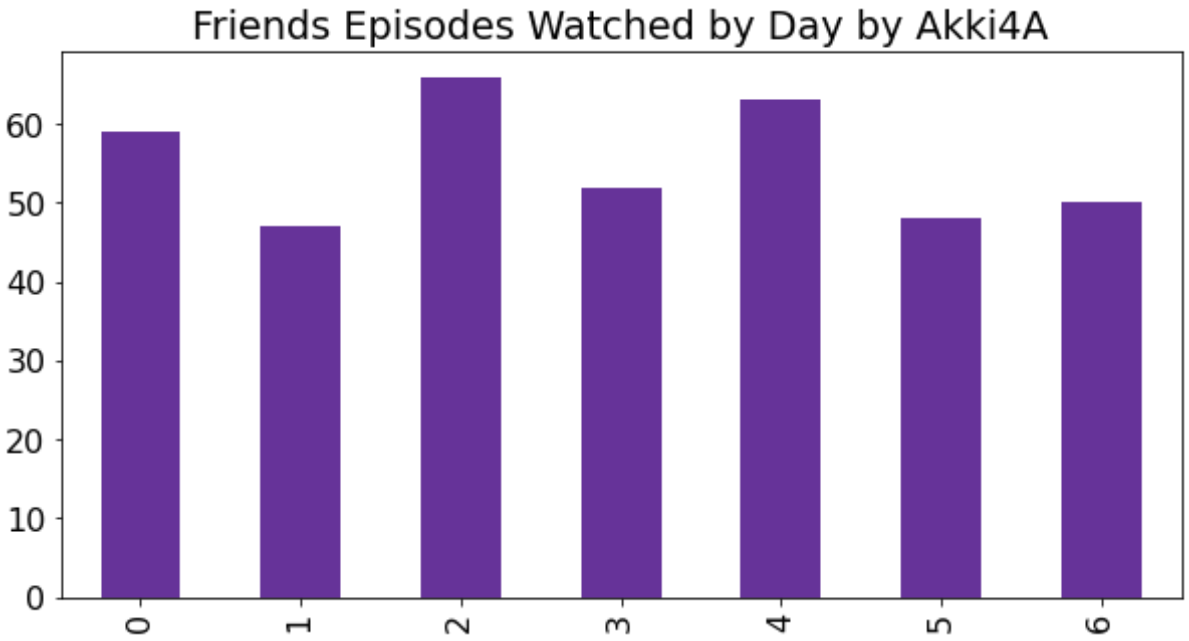
Graphical Representation:

In [17]:
```
%matplotlib inline
```

In [18]:
```
import matplotlib
```

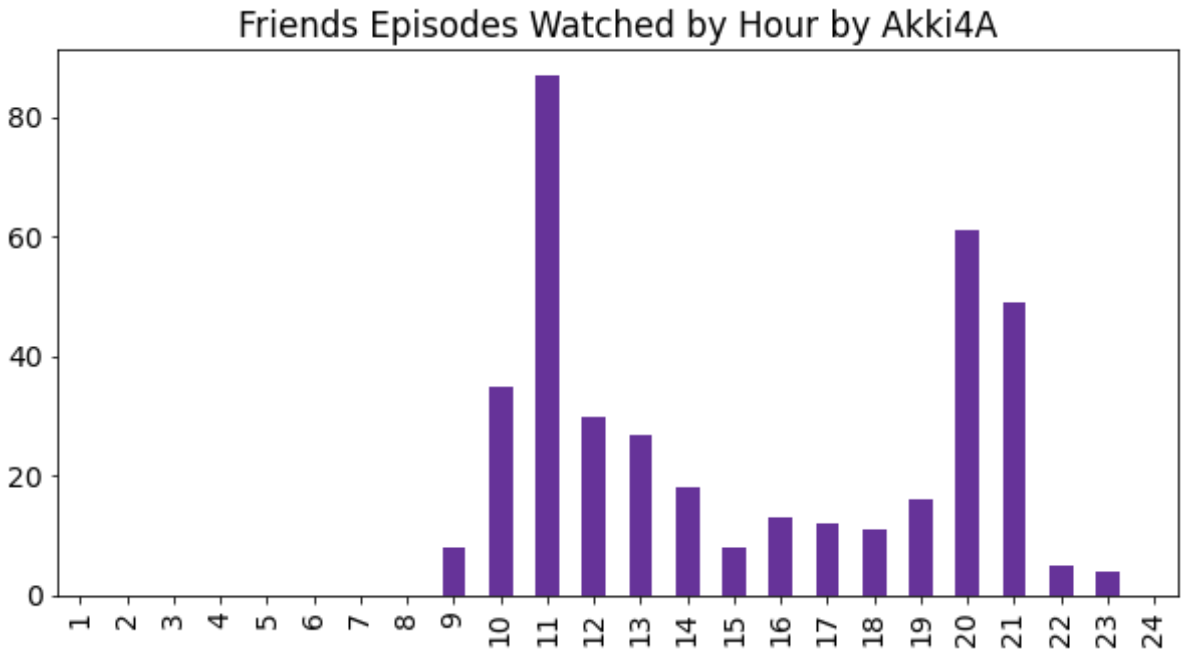
In [19]:
```
# set our categorical and define the order so the days are plotted Monday-Sunday
star['weekday'] = pd.Categorical(star['weekday'], categories=
    [0,1,2,3,4,5,6],
    ordered=True)

# create star_by_day and count the rows for each weekday, assigning the result to that variable
star_by_day = star['weekday'].value_counts()

# sort the index using our categorical, so that Monday (0) is first, Tuesday (1) is second, etc.
star_by_day = star_by_day.sort_index()

# optional: update the font size to make it a bit larger and easier to read
matplotlib.rcParams.update({'font.size': 16})


# plot star_by_day as a bar chart with the listed size and title
star_by_day.plot(kind='bar', figsize=(10,5), title='Friends Episodes Watched by Day by Akki4A', color=(0.4,0.2,0.6))
```

Out[19]:
```
<AxesSubplot:title={'center':'Friends Episodes Watched by Day by Akki4A'}>
```



In [20]:
```
# set our categorical and define the order so the hours are plotted 1-24 hours
star['hour'] = pd.Categorical(star['hour'], categories=
    [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24],
    ordered=True)

# create star_by_hour and count the rows for each hour, assigning the result to that variable
star_by_day = star['hour'].value_counts()

# sort the index using our categorical, so that 1 (0) is 1 hour, 2 (1) is 2 hour  so on...
star_by_day = star_by_day.sort_index()

matplotlib.rcParams.update({'font.size': 14})

star_by_day.plot(kind='bar', figsize=(10,5), title='Friends Episodes Watched by Hour by Akki4A', color=(0.4,0.2,0.6))
```

Out[20]:
```
<AxesSubplot:title={'center':'Friends Episodes Watched by Hour by Akki4A'}>
```



In [ ]:

In [ ]: