In [6]:
```
import pandas as pd

import matplotlib.pyplot as plt
```

In [7]:
```
uber_df = pd.read_csv("uber-raw-data-sep14.csv")

uber_df.head(5)
```

Out[7]:

	Date/Time	Lat	Lon	Base
0	9/1/2014 0:01:00	40.2201	-74.0021	B02512
1	9/1/2014 0:01:00	40.7500	-74.0027	B02512
2	9/1/2014 0:03:00	40.7559	-73.9864	B02512
3	9/1/2014 0:06:00	40.7450	-73.9889	B02512
4	9/1/2014 0:11:00	40.8145	-73.9444	B02512

In [8]:
```
uber_df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1028136 entries, 0 to 1028135
Data columns (total 4 columns):
 #   Column     Non-Null Count    Dtype 
---  ------     --------------    ----- 
 0   Date/Time  1028136 non-null  object
 1   Lat        1028136 non-null  float64
 2   Lon        1028136 non-null  float64
 3   Base       1028136 non-null  object
dtypes: float64(2), object(2)
memory usage: 31.4+ MB
```

In [ ]:
```
uber_df['Date/Time']=pd.to_datetime(uber_df['Date/Time'])


uber_df["Day"] = uber_df["Date/Time"].apply(lambda x: x.day)
uber_df["Hour"] = uber_df["Date/Time"].apply(lambda x: x.hour)
uber_df["Weekday"] = uber_df["Date/Time"].apply(lambda x: x.weekday())
uber_df.head(5)
```

In [15]:
```

```

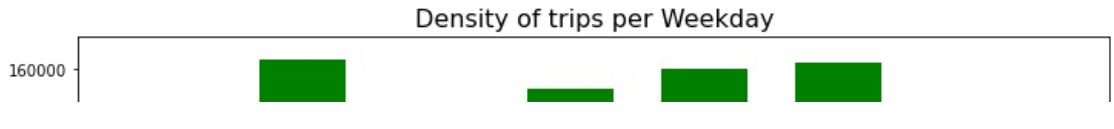
Out[15]:

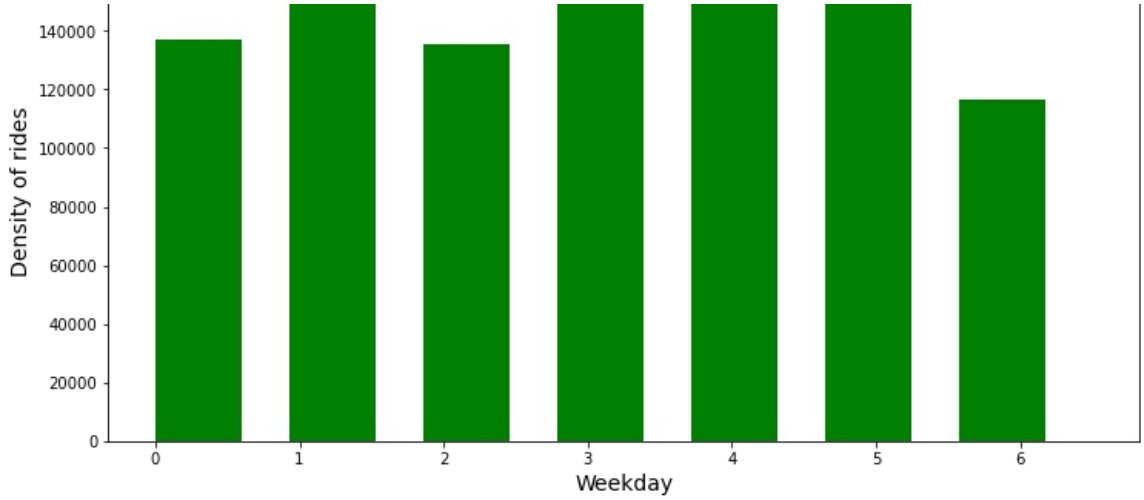
	Date/Time	Lat	Lon	Base	Day	Hour	Weekday
0	2014-09-01 00:01:00	40.2201	-74.0021	B02512	1	0	0
1	2014-09-01 00:01:00	40.7500	-74.0027	B02512	1	0	0
2	2014-09-01 00:03:00	40.7559	-73.9864	B02512	1	0	0
3	2014-09-01 00:06:00	40.7450	-73.9889	B02512	1	0	0
4	2014-09-01 00:11:00	40.8145	-73.9444	B02512	1	0	0

In [ ]:
```
fig,ax =plt.subplots(figsize =(12,6))
plt.hist(uber_df.Day, width= 0.6, bins=30)
plt.title("Density of trips per day", fontsize=24)
plt.xlabel("Day", fontsize=16)
plt.ylabel("Density of rides", fontsize=16)
```

In [22]:
```
#Visualize the Density of rides per Weekday
fig,ax = plt.subplots(figsize = (12,6))
plt.hist(uber_df.Weekday, width= 0.6, range= (0, 6.5), bins=7, color= "green")
plt.title("Density of trips per Weekday", fontsize=16)
plt.xlabel("Weekday", fontsize=14)
plt.ylabel("Density of rides", fontsize=14)
```

Out[22]:
```
Text(0, 0.5, 'Density of rides')
```



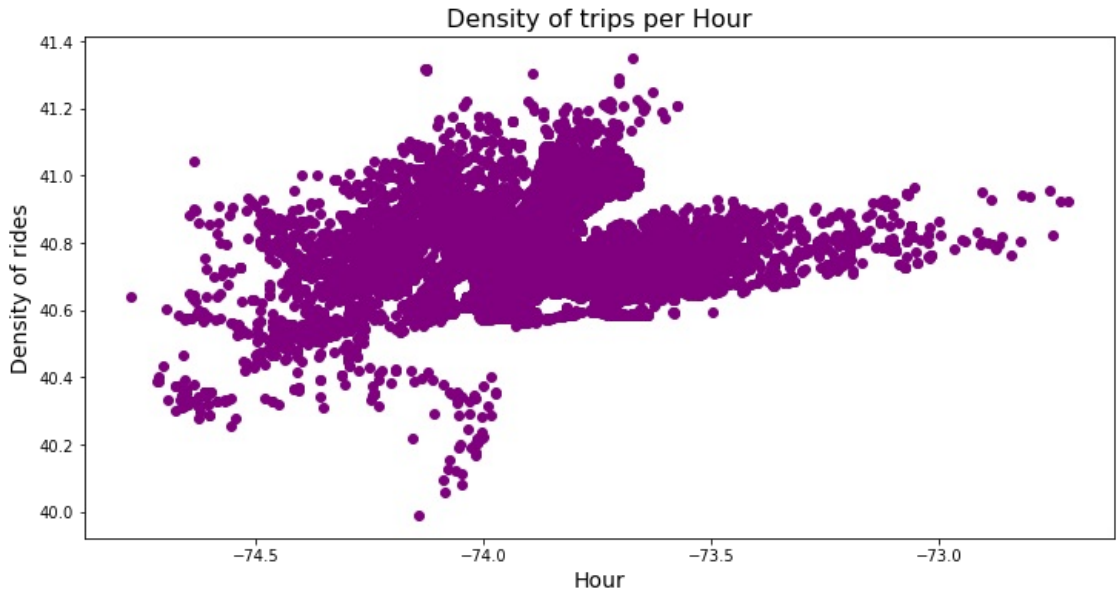


In [ ]:
```
the busiest day in the week for Uber is Monday, while Saturday is the day with least number of rides.
```

In [ ]:
```
# Visualize the Density of rides per hour
fig,ax = plt.subplots(figsize = (12,6))
plt.hist(uber_df.Hour, width= 0.6, bins=24, color= "orange")
plt.title("Density of trips per Hour", fontsize=16)
plt.xlabel("Hour", fontsize=14)
plt.ylabel("Density of rides", fontsize=14)
```

In [25]:
```
#Visualize the Density of rides per location
fig,ax = plt.subplots(figsize = (12,6))
x= uber_df.Lon
y= uber_df.Lat
plt.scatter(x, y, color= "purple")
plt.title("Density of trips per Hour", fontsize=16)
plt.xlabel("Hour", fontsize=14)
plt.ylabel("Density of rides", fontsize=14)
```

Out[25]:
```
Text(0, 0.5, 'Density of rides')
```



In [ ]: