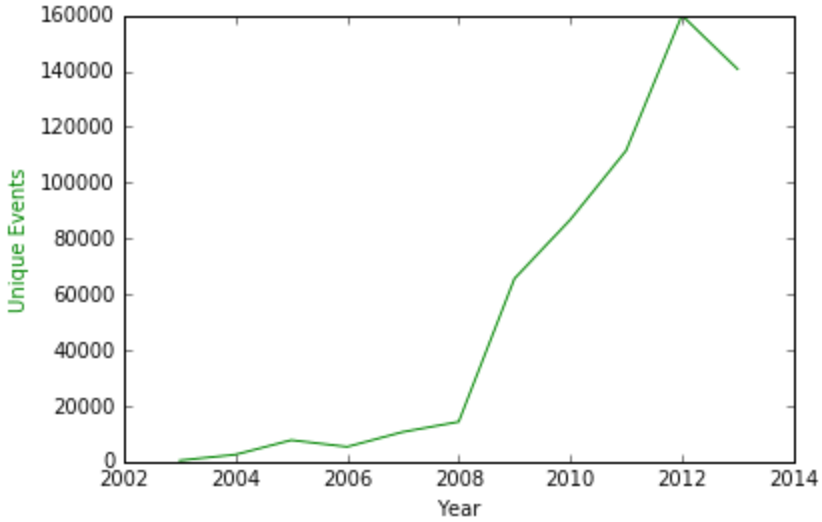
Q2. Plot total number of events in each year



Inference:

We have plotted a line plot to depict the count of number of unique events in each year. The line plot shows that the highest number of events was encountered in the year 2012, closely followed by the year 2013. Also it has more or less increased over the years.

Code:

```
import pandas as pd
import numpy as np
%matplotlib inline
import matplotlib.pyplot as plt
df = pd.read_csv("/home/swati/Downloads/events_train_holdout.tsv",sep="\t",error_bad_lines=False)
df['closed_tstamp_date'], df['closed_tstamp_time'] = df['closed_tstamp'].str.split('T', 1).str
df['Year'] ,_= df['closed_tstamp_date'].str.split('-', 1).str
df['Year'] = pd.to_numeric(df['Year'], errors='coerce')
df = df[np.isfinite(df['Year'])]
df['Year'] =df['Year'].apply(lambda x : int(x))
df['Year'] .unique()
year_grouped = df.groupby(lambda x : df['Year'][x])
unique_events = year_grouped['event_id'].nunique()
fig, ax1 = plt.subplots()
x = hour_grouped.size().index
ax1.plot(x,unique_events,'g-')
ax1.set_xlabel('Year')
ax1.set_ylabel('Unique Events', color = 'g')
```