In [1]:
```
import folium
from folium.map import *
import requests
import pandas
import random
import warnings
warnings.filterwarnings('ignore')

arrest_table = pandas.read_csv("http://www.hcbravo.org/IntroDataSci/misc/BPD_Arrests.csv")

arrest_table = arrest_table[pandas.notnull(arrest_table["Location 1"])]

arrest_table["lat"], arrest_table["long"] = arrest_table["Location 1"].str.split(",").str
arrest_table["lat"] = arrest_table["lat"].str.replace("(", "").astype(float)
arrest_table["long"] = arrest_table["long"].str.replace(")", "").astype(float)

arrest_table.head()
```

Out[1]:

	arrest	age	race	sex	arrestDate	arrestTime	arrestLocation	incidentOffense	incidentLocation	char
1	11127013.0	37	B	M	01/01/2011	00:01:00	2000 Wilkens Ave	79-Other	Wilkens Av & S Payson St	1 14
2	11126887.0	46	B	M	01/01/2011	00:01:00	2800 Mayfield Ave	Unknown Offense	NaN	N
3	11126873.0	50	B	M	01/01/2011	00:04:00	2100 Ashburton St	79-Other	2100 Ashburton St	1 11
4	11126968.0	33	B	M	01/01/2011	00:05:00	4000 Wilsby Ave	Unknown Offense	1700 Aliceanna St	N
5	11127041.0	41	B	M	01/01/2011	00:05:00	2900 Spellman Rd	81-Recovered Property	2900 Spelman Rd	1 14

In [2]:

```
# index of random positions
lst = []
i = 0


map_osm = folium.Map(location=[39.29, -76.61], zoom_start=11)

# randomly choosing 500 elements from the data set
while i < 500:

    rand = random.randint(0, len(arrest_table['race']))

    if rand not in lst:
        lst.append(rand)
        i += 1

# Layers for the map
sex = FeatureGroup(name='Sex')
race = FeatureGroup(name='Race')


# Creating markers based of sex
for i in lst:
    if arrest_table['sex'].values[i] == 'M':
        sex.add_child(folium.Marker(
            location=[arrest_table['lat'].values[i],arrest_table['long'].values[i]],
            popup="Arrest #: " + str(arrest_table['arrest'].values[i]) + ". Arrest Locat
ion: " + arrest_table['arrestLocation'].values[i] + ". Age: " + str(arrest_table['age'].
values[i]),

            icon=folium.Icon(color='darkblue', prefix='fa', icon="fa-male")
        ))
    else:
        sex.add_child(folium.Marker(
            location=[arrest_table['lat'].values[i],arrest_table['long'].values[i]],
            popup="Arrest #: " + str(arrest_table['arrest'].values[i]) + ". Arrest Locat
ion: " + arrest_table['arrestLocation'].values[i] + ". Age: " + str(arrest_table['age'].
values[i]),
            icon=folium.Icon(color='red',  prefix='fa', icon="fa-female")
        ))


def adding_child(i,color):
    race.add_child(folium.Circle(
            radius=150,
            location=[arrest_table['lat'].values[i],arrest_table['long'].values[i]],
            popup="Race : " + str(arrest_table['race'].values[i]),
            color=color,
            fill=True,
        ))

# creating circle markers based of race
for i in lst:
    if arrest_table['race'].values[i] == 'B':
        adding_child(i, 'black')
    elif arrest_table['race'].values[i] == 'W':
        adding_child(i, 'blue')
    elif arrest_table['race'].values[i] == 'A':
        adding_child(i, 'orange')
    elif arrest_table['race'].values[i] == 'U':
        adding_child(i, 'purple')
```

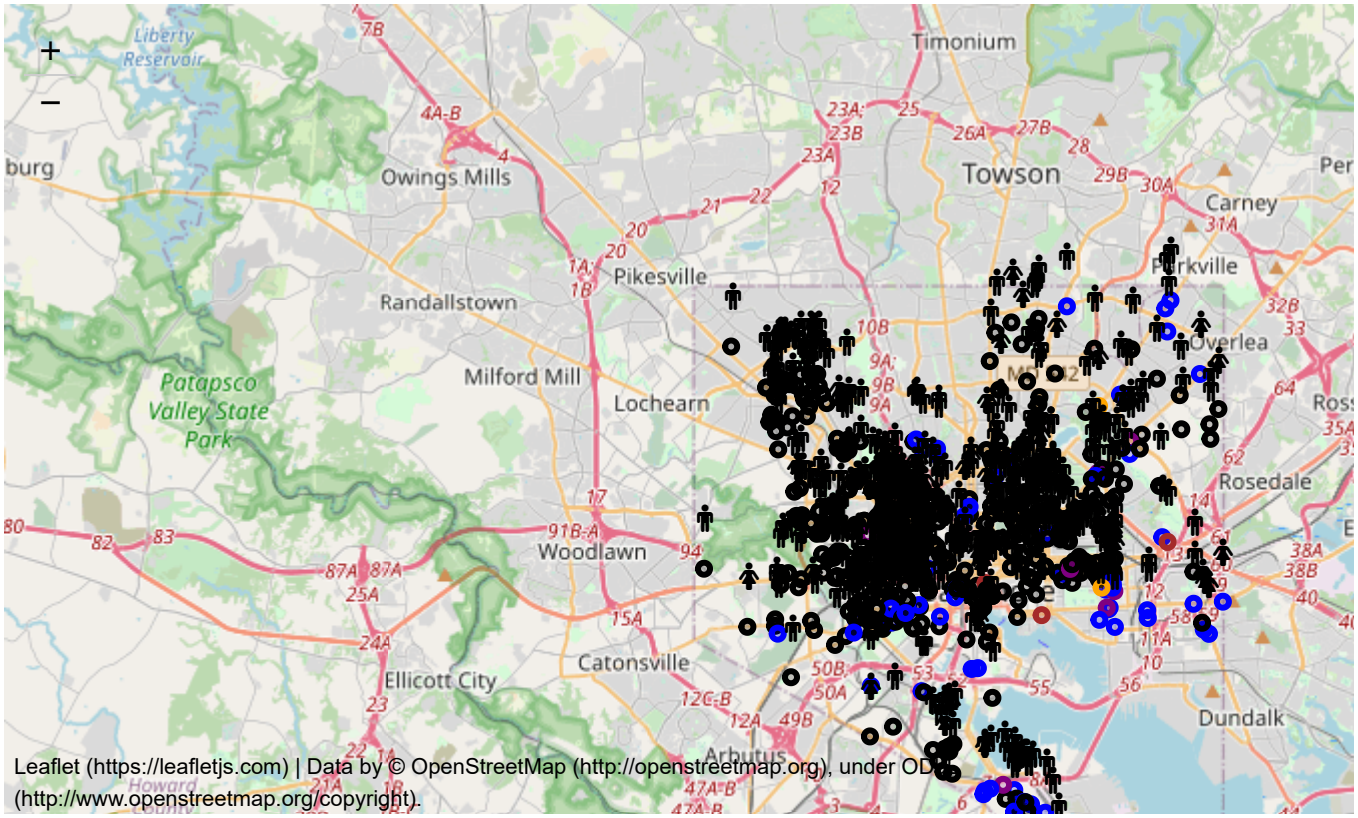
```
    elif arrest_table['race'].values[i] == 'H':
        adding_child(i, 'green')
    elif arrest_table['race'].values[i] == 'I':
        adding_child(i, 'brown')


map_osm.add_child(race)
map_osm.add_child(sex)


map_osm.add_child(folium.map.LayerControl())

map_osm
```

Out[2]:



Analysis

Most of the crime was commited by men over women.
Most of the crime happens in the center of Baltimore city.
According to the data set most of the crime is commited by Race B.