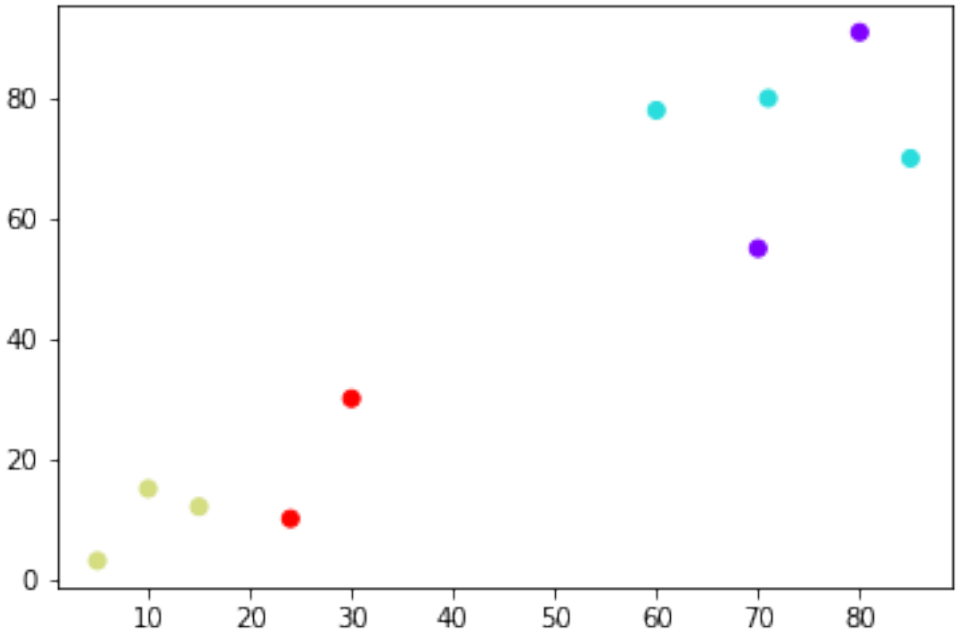
agglomerative_test

April 4, 2019

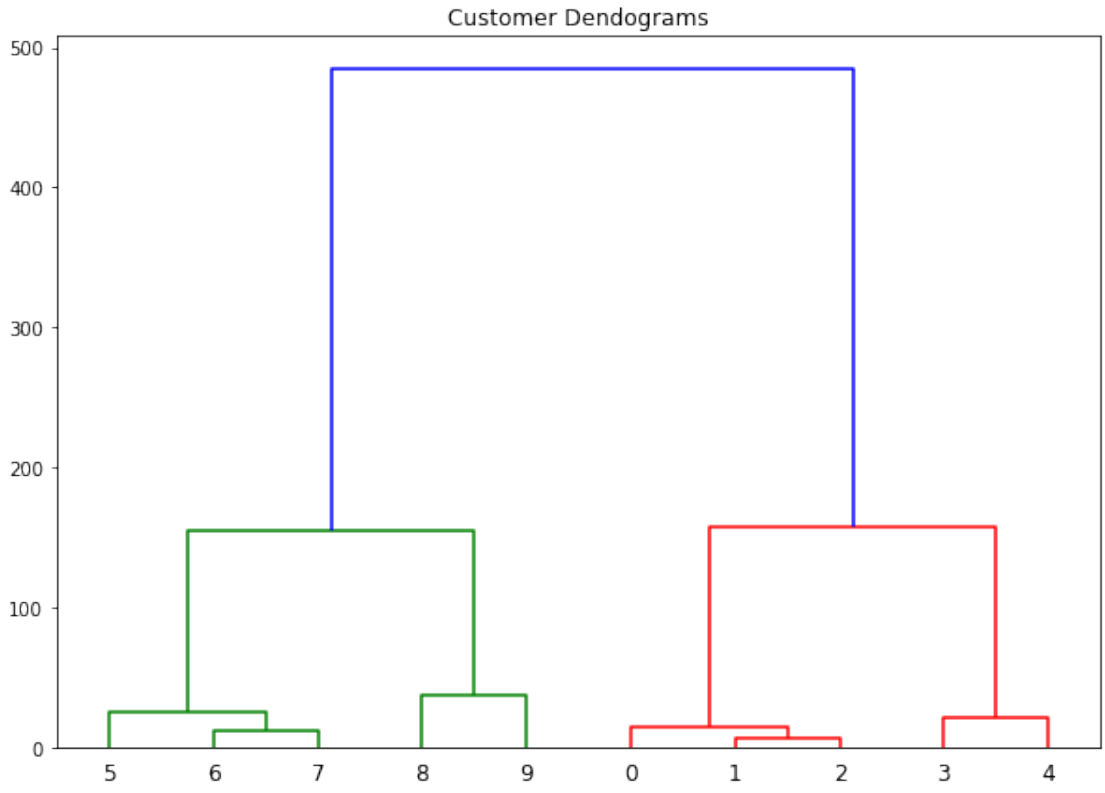
In [3]:
```
import matplotlib.pyplot as plt
import pandas as pd
%matplotlib inline
import numpy as np
from sklearn.cluster import AgglomerativeClustering

X = np.array([[5,3,100],
    [10,15,100],
    [15,12,100],
    [24,10,200],
    [30,30,200],
    [85,70,300],
    [71,80,300],
    [60,78,300],
    [70,55,400],
    [80,91,400],])


cluster = AgglomerativeClustering(n_clusters=4, affinity='euclidean', linkage='ward')
cluster.fit_predict(X)

print(cluster.labels_)

plt.scatter(X[:,0],X[:,1], c=cluster.labels_, cmap='rainbow')
```

```
[2 2 2 3 3 1 1 1 0 0]
```

Out[3]:
```
<matplotlib.collections.PathCollection at 0x11f482780>
```



In [4]:
```
import scipy.cluster.hierarchy as shc

plt.figure(figsize=(10, 7))
plt.title("Customer Dendograms")
dend = shc.dendrogram(shc.linkage(X, method='ward'))
```


Customer Dendograms
500
400
300
200
100
0
5
6
7
8
9
0
1
2
3
4