IPRO

November 6, 2017

In [3]:
```
import pandas as pd
import numpy as np
```

In [33]:
```
#generate Synthatic Data
df2 = pd.DataFrame(np.random.rand(100, 4)*5,columns=['width', 'length', 'depth', 'Tra
df2['Traffic Density'] = np.random.rand(100,4)*2000// 1
#save generic data to csv file
df2.to_csv('Synthatic_Data.csv',sep=',',header=True,index=False)
```

In [51]:
```
#load data from csv file
data = pd.read_csv('Synthatic_Data.csv',index_col=False)
data.drop_duplicates(inplace=True)
```

In [53]:
```
#this is mock algorithmm we probably gotta redefine it.
def the_almighty_algorithm(row):
    return 5*row['width']+0.3*row['length']+20*row['depth']+np.log(row['Traffic Densit
```

In [55]:
```
#apply algorithm on data
data['score'] = data.apply(lambda row: the_almighty_algorithm(row), axis=1)
```

In [69]:
```
#rank the data based on score by algorithm
print(data.sort_values(by ='score',axis=0,ascending=False).head())
```

```
       width    length     depth  Traffic Density       score
5   4.537057  3.850043  4.694899           1992.0  125.335169
24  4.443270  1.357177  4.716134            136.0  121.858838
52  3.042406  4.017748  4.849572           1281.0  120.564187
69  3.373578  2.116670  4.796306            916.0  120.249026
90  4.281845  0.104379  4.408139           1568.0  116.960879
```

In [ ]: