Page 1

Big City Taxi Fare DL Model

Robert Sanchez
IS 160

Code fo Euclidean Distance

```
def euc_distance(lat1,long1,lat2,Long2):  #distance calculated by latitude and Longitude
    return(((Lat1-lat2)**2+(long1-long22)**2)**0.5) #Inputs put into the Euclidean Distance formula

df['distance'] = euc_distance(df['pickup_latitude'], #Pickup and dropoff locations are updated
                 df['picku_longitude'],
                 df['dropoff_latitude'],
                 df['dropoff_longitude'])
```

Code 1

```
df euc_distance(Lat1,Long1,lat2,Long2):                    #lat/Long calculation
    return(((Lat1-lat2)**2+(long1-long2)**2)**0.5)
def passenger_count((Lat1,Long1,lat2,Long2),):*1           #distance sorted by one Passenger
def passenger_cant((Lat1,Long1,Lat2,Long2),:)*2  # distance sorted by two Passenger

df['Passenger'] =euc_distance(df['passenger_count'],  #Pickup and dropoff locations sorted by 1,2,or3 Passengers
                 df['passenger_count1'],
                 df['passenger_count2']
                 df['passenger_count3'])'
```

This code has the same Euclidean Distance Formula, only diffence is that code 1 has it sorted depending which fares drove one, two, or three passengers