

## Code 2

```
def euc_distance(lat1, long1, lat2, long2): #gathering NYC taxi fares
    return(((lat1-lat2)**2 + (long1-long2)**2)**0.5)

def pickup_datetime(euc_distance) #calculation sorted by grouping
    Sort AM-Fares, PM-Fares AM and PM-Fares
def pickup_datetime(lat1, long1, lat2, long2) * AM-Fares # AM Fares gathered
def pickup_datetime(lat1, long1, lat2, long2) * PM-Fares # PM Fares gathered
```

This code uses the data provided from the excel sheet to gather and sort the AM and PM taxi fares

## Code 3

```
def euc_distance(lat1, long1, lat2, long2): # Euclidean distance
    return (((lat1-lat2)**2 + (long1-long2)**2)**0.5)
```

```
df['pickup_datetime_year'] = euc_distance(df['pickup_datetime-2009'],
df['pickup_datetime-2010'],
df['pickup_datetime-2011'], # Euclidean
df['pickup_datetime-2012'], distance calculated
df['pickup_datetime-2013'], from years 2009 to
df['pickup_datetime-2014'], 2015.
df['pickup_datetime-2015'])
```

Choose this code to run the Euclidean distance for every year that is recorded from years 2009-2015