In [1]:

```
# Project 1 - Google Map: Query Google Maps to get a route between cities
import requests
import urllib.request
```

In [2]:

```
import json
```

In [3]:

```
url = 'https://maps.googleapis.com/maps/api/distancematrix/json?'
```

In [4]:

```
api_key = 'AIzaSyCfO40aWo3cPPPaqRQojae66S5iMDEjq4o'
# https://console.cloud.google.com/apis/ adresinden aldigim API key
```

In [5]:

```
source = input('Su an neredesiniz?: ')
```

```
Su an neredesiniz?: Kocaeli
```

In [6]:

```
destination = input('Nereye gitmek istiyorsunuz?: ')
```

```
Nereye gitmek istiyorsunuz?: Ankara
```

In [7]:

```
request_url = url + 'origins=' + source + '&destinations=' + destination + '&key=' + api_key + '&mo
de=driving&sensors=false'
response = requests.get(request_url)
```

In [8]:

```
x = response.json()
# JSON formatinda sonuc dondurur.
```

In [9]:

```
print(x)
```

```
{'destination_addresses': ['Ankara, Turkey'], 'origin_addresses': ['Kocaeli, Turkey'], 'rows': [{'
elements': [{'distance': {'text': '371 km', 'value': 370652}, 'duration': {'text': '4 hours 12 min
s', 'value': 15113}, 'status': 'OK'}]}], 'status': 'OK'}
```

In [10]:

```
web_object = urllib.request.urlopen(request_url)
results_str = str(web_object.read())
web_object.close()
# JSON formatindaki sonucu proje aciklama PDF'indeki gibi parse islemi yapilir.
```

In [11]:

```
# Yararlanilan kaynaklar: https://developers.google.com/maps/documentation/
# https://www.geeksforgeeks.org/python-calculate-distance-duration-two-places-using-google-distanc
e-matrix-api/
# https://www.youtube.com/watch?v=UrrWxvq1748
```

```
# https://www.youtube.com/watch?v=bIIWxyQ1Z40
```