Google Places API

This code access place results from the Google Places API. The API can be queried using the Find Place Search, Nearby Search or Text Query Search. The results can be in xml or JSON format.

Note the user must have their own API key to initiate this code.

In [18]:
```
import requests
```

In [19]:
```
def format_findsearch(in_search):
    ''' Remove spaces from find place from text query search location
    and format for google places api url

    Parameter
    ---------
    in_search: str
        address, name, or phone number of search location

    Return
    ------
    out: str
        formatted search location to be used for google places api url
    '''

    out = in_search.replace(",", "")
    out = out.replace(" ", "%20")
    return out

def format_txtquerysearch(in_search):
    ''' Remove spaces from text query search location and format for google p

    Parameter
    ---------
    in_search: str
        address, name, or phone number of search location

    Return
    ------
    out: str
        formatted search location to be used for google places api url
    '''

    out = in_search.replace(",", "")
    out = out.replace(" ", "+")
    return out
```

In [20]:
```
key = "AIzaSyCYPFFiQg2gvFhLwv17r9FEjJalSiqwNrM" # your user api key [should p
```

In [21]:
```
base_url = "https://maps.googleapis.com/maps/api/place/"
```

Enter the query type you want to perform in query__type as a string:

- findplacefromtext
- nearbysearch
- textsearch

In [22]:
```
#type options: findplacefromtext, nearbysearch, or textsearch
query_type = "findplacefromtext"

#output options: xml or json
out_type = "json"
```

In [23]:
```
if query_type == "findplacefromtext":
    inputtype = input("Enter one of the following for your input search type:
    in_search = input("Enter the full address, name, or phone number of your
    place = format_findsearch(inputtype)
    fields = "fields=photos,formatted_address,name,rating,opening_hours,geome
    url = f"{base_url}{query_type}/{out_type}?input={place}&inputtype={inputt


elif query_type == "nearbysearch":
    loc_long = input("Enter the longitude of the place you want to search nea
    loc_lat = input("Enter the latitude of the place you want to search nearb
    location = f"{loc_long},{loc_lat}"
    radius = input("Enter your search radius. Note the units are in meters: "
    url = f"{base_url}{query_type}/{out_type}?location={location}&radius={rad


elif query_type == "textsearch":
    query = input("Input the your search: ")
    query = format_txtquerysearch(query)
    url = f"{base_url}{query_type}/{out_type}?query={query}&key={key}"
```

```
Enter one of the following for your input search type: 'textquery' or 'phon
enumber': textquery
Enter the full address, name, or phone number of your location of interest:
Cafe Alma Minneapolis
```

In [24]:
```
print(url)
```

```
https://maps.googleapis.com/maps/api/place/findplacefromtext/json?input=tex
tquery&inputtype=textquery&fields=photos,formatted_address,name,rating,open
ing_hours,geometry&key=AIzaSyCYPFFiQg2gvFhLwv17r9FEjJalSiqwNrM (https://map
s.googleapis.com/maps/api/place/findplacefromtext/json?input=textquery&inpu
ttype=textquery&fields=photos,formatted_address,name,rating,opening_hours,g
eometry&key=AIzaSyCYPFFiQg2gvFhLwv17r9FEjJalSiqwNrM)
```

In [13]:
```
r = requests.get(url)
assert r.status_code is 200
```

In [16]:
```
# Write file to specified output type. Out path is same as this jupyter noteb
with open(f"{query_type}.{out_type}", "w") as file:
    file.write(r.text)
```

In [ ]:
```

```