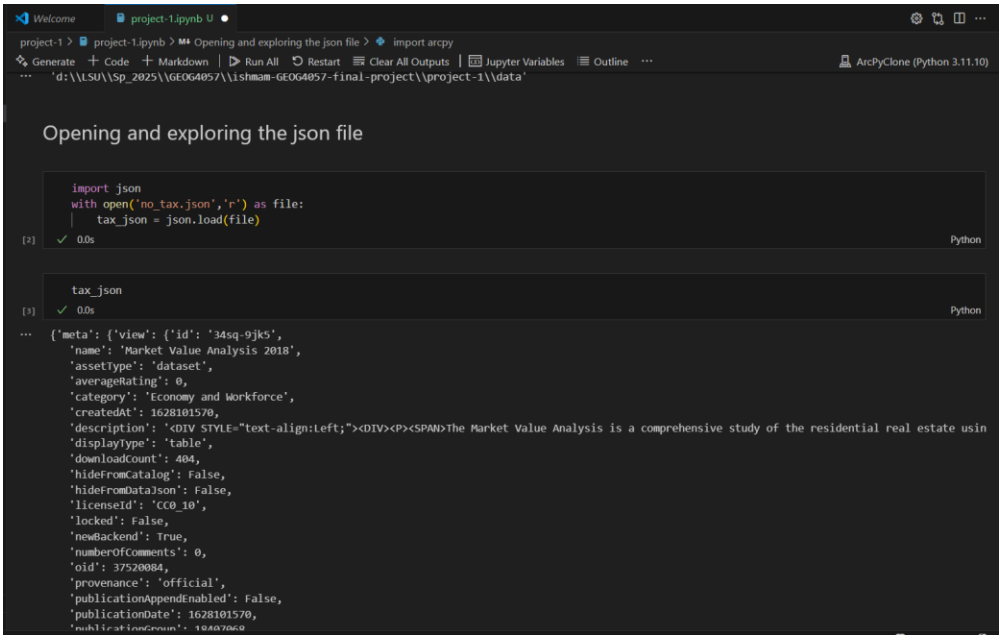
GEOG 4057 – Guided Project 1

## Step 1: Opening and exploring the json file



Opening and exploring the json file

```
import json
with open('no_tax.json','r') as file:
    tax_json = json.load(file)
```

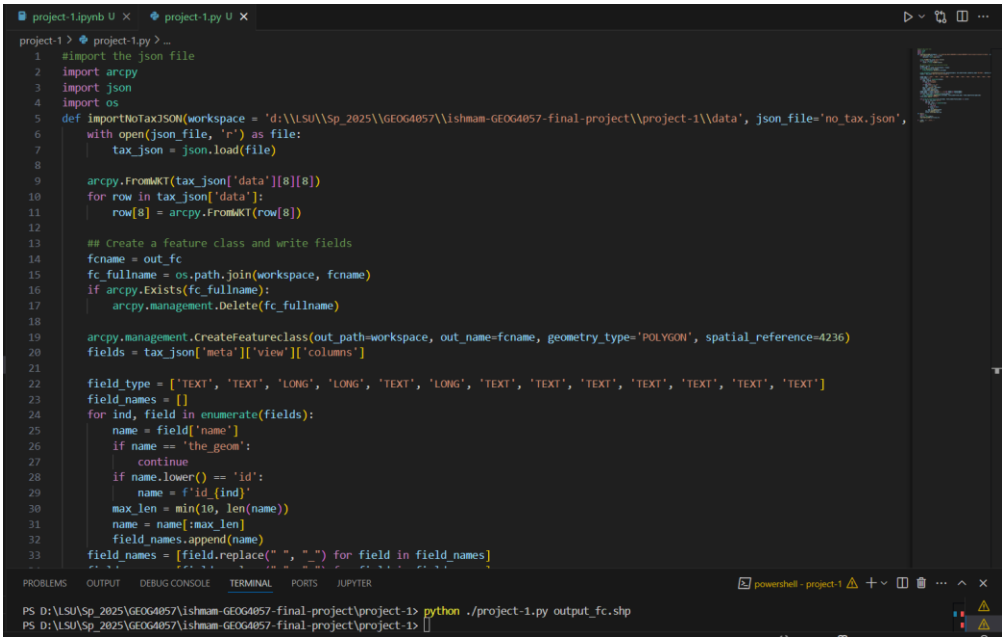
0.0s Python

```
tax_json
```

0.0s Python


```
{'meta': {'view': {'id': '34sq-9jk5',
   'name': 'Market Value Analysis 2018',
   'assetType': 'dataset',
   'averageRating': 0,
   'category': 'Economy and Workforce',
   'createdAt': 1628101570,
   'description': '<DIV STYLE="text-align:Left;"><DIV><P><SPAN>The Market Value Analysis is a comprehensive study of the residential real estate usin
   'displayType': 'table',
   'downloadCount': 404,
   'hideFromCatalog': False,
   'hideFromDataJson': False,
   'licenseId': 'CC0_10',
   'locked': False,
   'newBackend': True,
   'numberOfComments': 0,
   'oid': 37520084,
   'provenance': 'official',
   'publicationAppendEnabled': False,
   'publicationDate': 1628101570,
```

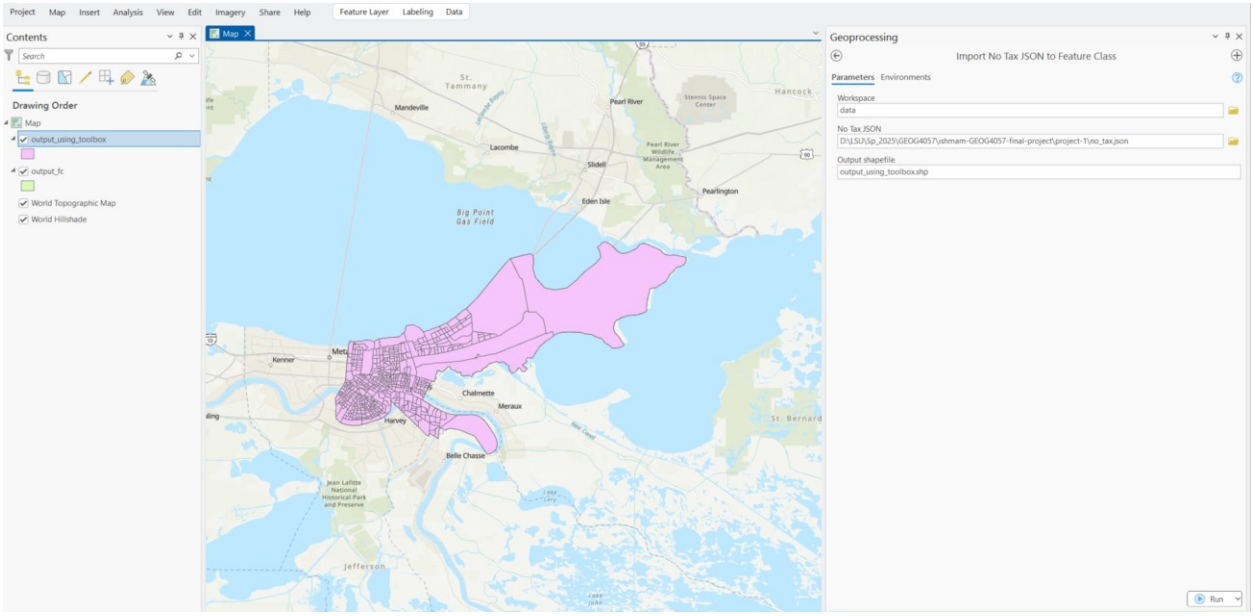

## Step 2: Convert json to shapefile (full code provided in the GitHub repository as project_1.py)



```python
#import the json file
import arcpy
import json
import os
def importNoTaxJSON(workspace = 'd:\\LSU\\Sp_2025\\GEOG4057\\ishmam-GEOG4057-final-project\\project-1\\data', json_file='no_tax.json',
    with open(json_file, 'r') as file:
        tax_json = json.load(file)

    arcpy.FromWKT(tax_json['data'][8][8])
    for row in tax_json['data']:
        row[8] = arcpy.FromWKT(row[8])

    ## Create a feature class and write fields
    fcname = out_fc
    fc_fullname = os.path.join(workspace, fcname)
    if arcpy.Exists(fc_fullname):
        arcpy.management.Delete(fc_fullname)

    arcpy.management.CreateFeatureclass(out_path=workspace, out_name=fcname, geometry_type='POLYGON', spatial_reference=4236)
    fields = tax_json['meta']['view']['columns']

    field_type = ['TEXT', 'TEXT', 'LONG', 'LONG', 'TEXT', 'LONG', 'TEXT', 'TEXT', 'TEXT', 'TEXT', 'TEXT', 'TEXT', 'TEXT']
    field_names = []
    for ind, field in enumerate(fields):
        name = field['name']
        if name == 'the_geom':
            continue
        if name.lower() == 'id':
            name = f'id_{ind}'
        max_len = min(10, len(name))
        name = name[:max_len]
        field_names.append(name)
    field_names = [field.replace(" ", "_") for field in field_names]
```

```
PS D:\LSU\Sp_2025\GEOG4057\ishmam-GEOG4057-final-project\project-1> python ./project-1.py output_fc.shp
PS D:\LSU\Sp_2025\GEOG4057\ishmam-GEOG4057-final-project\project-1>
```

Step 3: Achieving the same task but by creating a python toolbox




Link to Github repository:

https://github.com/ishmamshahid/ishmam-GEOG4057-final-project/tree/main/project-1