# Organising your backpacking trip using Google My Maps



# What is Google My Maps?

Allows creating custom maps with features:

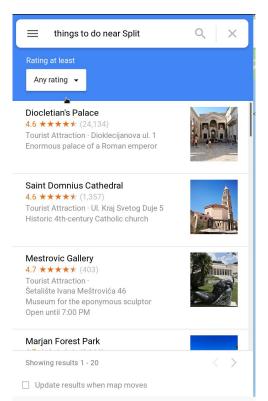
- Tweaking the base map
- Adding a travel route
- Coloring coding all landmarks, ...

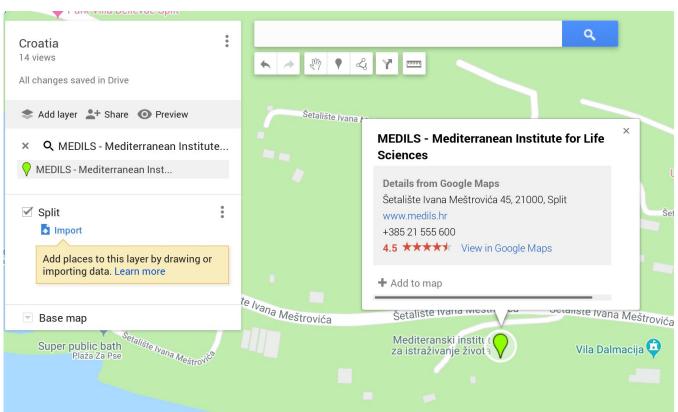


# Creating a travel itinerary

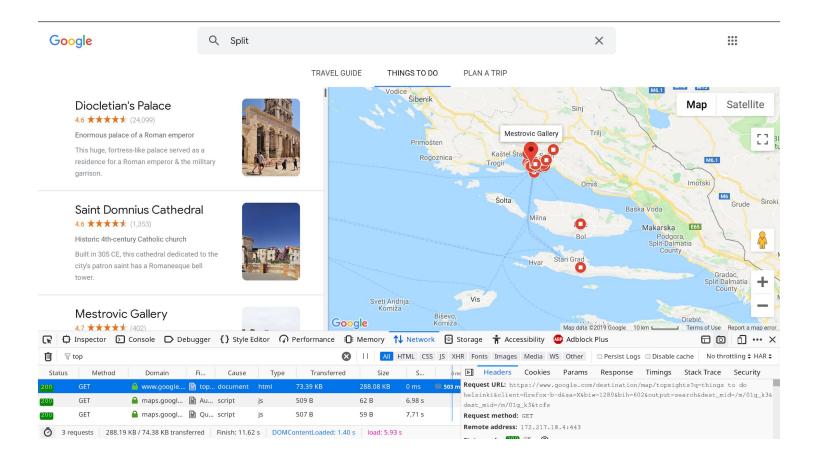
- Figuring out the travel routes
- Booking transport tickets (plane, bus, etc.)
- Finding accomodations (hotel, AirBnb, etc.)
- Creating a list of places to visit

## Adding new entries - a repetitive process





## Inspecting the HTML source code



## Inspecting the HTML source code

,["t-k5XbnYNFBAw","iX3Aaujc7t0I","r-iX3Aaujc7t0I",["map data",null,null,null,null,[null,[[[43.508595299999996,16.4402652]\n,\"0x13355dfe535cfc4f: 0x921ac62569576f32\".\"Diocletian's Palace\".\"Enormous palace of a Roman emperor\".0.\"/m/05vyld\".null.null.\"10527944942915383090\"]\n,[[43.5080652.16.440471]\n \"0x13355dfe2b94401d:0x7d6779ece88a69f3\",\"Saint Domnius Cathedral\",\"Historic 4th-century Catholic church\",0,\"/m/05h23dz\",null,null,\"9036325235762817523\"]\n, [[43.5047873,16.41793879999999]\n,\"0x1335675e08f2ea77:0x33ab167c03f155a8\",\"Mestrovic Gallery\",\"Museum for the eponymous sculptor\",0,\"/m/0dljlwc\",null,null, \"3723094238849750440\"]\n,[[43.5024856,16.4468835]\n,\"0x133560a984c2b8b9:0xbf1b505db2fb8eb6\",\"Bacvice Beach\",\"Bustling place with shallow waters\",0,\"/g/ 1/21dc79z\",null,null,\"\"]\n,[[43.507818,16.4382254]\n,\"0x13355dffb1d80851:0xb887852f0deff8e8\",\"Riva\",\"Harbor\",0,\"/g/1td1xlto\",null,null,\"\"13296742861978466536\" \n,[[43.50833749999996,16.4395886]\n,\"0x13355dfe310f186d:0xd9a182950ada09e5\",\"0ld Jupiter's Temple\",\"3rd-century Roman temple of Jupiter\",0,\"/g/ 122rd9f \",null,null,\"15681958954124577253\"]\n,\[43.516666699999995,16.4166667]\n,\"0x13355d8d33d60eel:0x523591b39129f23b\",\"Marjan, Split\",\"Iconic peak for walking \u0026 city views\",0,\"/m/02vyhqb\",null,null,\"\"]\n,[[43.513815799999996,16.4025095]\n,\"0x13355d86f02e5c7f:0xb7b4a224c25bdb9c\",\"Beach Bene\",\"Beach\",0,\"/g/ 11bv3mlnwf\",null,null,\"13237383483512052636\"]\n,[[43.5109755,16.4373172]\n,\"0x13355dfc2eabe481:0xbdc6c3105f66fb68\",\"Croatian National Theater in Split\",\"Theatre and opera\",0.\"/m/0gtw9p9\",null,null,\"13674831793644567400\"]\n,[[43.50868819999995.16.44078799999998]\n,\"0x13355e009eea2e89:0x43984f7e15a0dedc\",\"Split City Museum\",\"Museum with art, weapons \\u0026 armor\",0,\"/g/120n81kw\",null,null,\"4870730399948529372\"]\n,[[43.5158877,16.435084]\n, \"0x13355dfcad5231e9:0xd4448389ee736d0b\",\"Archaeological Museum\",\"Archeological museum in villa-like digs\",0,\"/g/112yg20cv\",null,null,\"15295494862891347211\"]\n, [[43.5094335,16.4106153]\n,\"0x1335676208dd5985:0x4e7b95a97eeff503\",\"Marjan Forest Park\",\"Hillside park with forests \\u0026 trails\",0,\"/g/11ksfsxm0\",null,null, \"5655278312305456387\"]\n,[[43.5034,16.47592599999998]\n,\"0x13355e28e44f8c85:0x93eaf7d44452e46d\",\"Žnjan City Beach\",\"Beach\",\"/g/11c2nbszy9\",null,null, \"10658603959177110637\"]\n,[[43.50897020000001,16.4384707]\n,\"0x13355dfe4188080d:0x9399e5a230d5fc89\",\"Narodni trg\",\"\",0,\"/g/ltd8wcpp\",null,null,\"\"]\n, [[43.5090211,16.4405866]\n,\"0x13355e00a76cf181:0xfafa6d4ddc5b2d92\",\"Golden Gate\",\"Landmark gate from 4th century CE\",0,\"/g/122tcpf \",null,null, \"18084887434836520338\"]\n,[[43.5101,16.438040300000004]\n,\"0x13355dfe7bee022f:0x7152d5f44358246b\",\"Froggyland\",\"Unique attraction with stuffed frogs\",0,\"/g/ 11b7vtgh9v\",null,null,\"8165824319454717035\"]\n,[[43.5033975,16.4133325]\n,\"0x13356766ebd18529:0x4c41b6b52e6f89fa\",\"Meštrovićeve Crikvine - Kaštilac\",\"Renaissanceera mansion filled with art\".0,\"/g/11b6gr xrn\",null,null,\"5494873909653113338\"]\n,[[43.5073435,16.44127839999999]\n,\"0x13355e00878da6c1:0x6e97c233b47075ea\", \"Green Market - Pazar\".\"\".0.\"/g/11b8 gc9g7\".null.null.\"7969051592981771754\"]\n.[[43.5043828.16.4223289]\n.\"0x1335675eb707b751:0x313d99e516ee4489\".\"Museum of Croatian Archaeological Monuments\",\"Cultural artifacts dating to Middle Ages\",0,\"/m/0h dfpr\",null,null,\"3548161290649093257\"]\n,[[43.4833333,16.4333333]\n, \"0x13356736b66c4419:0x10919691d2610d8c\",\"Trajektna Luka Split\",\"Harbor\",0,\"/m/0h7ql\_g\",null,null,\"\"]\n,[[43.5075593,16.440166599999998]\n, \"0x13355dffd2336861:0x16fb93c4dbf31860\",\"Split Ethnographic Museum\",\"Museum of traditional Dalmatian culture\",0,\"/g/122czlc9\",null,null,\"1656079761701804128\"] \n,[[43.5101337,16.440265099999998]\n,\"0x13355dfe03a6a71d:0x4710d83169077480\",\"Gallery of Fine Arts, Split\",\"Croatian \\u0026 European art gallery\",0,\"/m/ 0dr t3p\",null,null,\"5120830483047347328\"]\n,[[43.5007351,16.454344799999998]\n,\"0x133560a64c2023e7:0x6084fcdef951a291\",\"Firule Beach\",\"Low-key beach with shallow water\",0,\"/g/121hf61v\",null,null,\"\"]\n,[[43.508135499999995,16.43857239999999]\n,\"0x13355dfe4cfe6719:0x6ee9ed6e555a0172\",\"Fruit Square\",\"\",0,\"/g/ 11c58s9q2v\",null,null,\"7992180071879803250\"]\n,[[43.5090388,16.4385087]\n,\"0x13355dfe2ec9fadd:0x2ee8d8f969d2c8b4\",\"People's Square or Pjaca\",\"\",0,\"/g/ 1hf45khrq\",null,null,\"3380190086075435188\"]\n,[[43.5080752,16.44119019999998]\n,\"0x13355e0084e345e7:0x44d8506709bd2434\",\"Silver Gate\",\"Palace and architecture\", 0,\"/g/11btxhrtg4\",null,null,\"4960803393023845428\"]\n,\[43.507201699999996,16.4431224]\n,\"0x13355e005c9bb8cb:0xda359cf65b2ec041\",\"Prirodoslovni Muzej I Zoološki VRT - Split\",\"Compact zoo \\u0026 natural history museum\",0,\"/m/03qpbxm\",null,null,\"15723646255939633217\"]\n,[[43.5089423,16.4473704]\n, \"0x13355e03f8aa1109:0x7e5d485bcbe83f9c\",\"Croatian Maritime Museum\",\"Maritime museum with a ship \\u0026 exhibits\",0,\"/g/112yfkb79\",null,null, \"9105513580713230236\"]\n.[[43.5077274.16.4396144]\n.\"0x13355dffccf0ec63:0x332b847cbc94b588\".\"Diocletian's Palace - cellars\".\"History and architecture\".0.\"/g/ 122pwn 5\",null,null,\"3687186391207556488\"]\n,\[[43.508366099999996,16.4354109]\n,\"0x13355dff206d0743:0x9b14d65a7529d03f\",\"The church and monastery of St. Frane, Split\",\"\",0,\"/g/lwdkzddt\",null,null,\"11174792259414118463\"]\n,[[43.504042,16.4454492]\n,\"0x133560aa0ac4c879:0x8f86431d9db2eb1b\",\"Bačvice\",\"\",0,\"/g/ 11fhvkh8c4\",null,null,\"\"]\n,[[43.5094321,16.440838]\n,\"0x13355e00a89ddcf9:0x74fd1a2b4c6d0e78\",\"Gregory of Nin\",\"\",0,\"/g/11dxkw6yq0\",null,null, \"8429922850775567992\"]\n,[[43.1541875,16.65270989999998]\n,\"0x134a89b7924b652d:0xf7175fc329762be6\",\"Hvar\",\"Adriatic resort island \\u0026 historic port\\",0,\"/m/ 0545j2\",null,null,\"\"]\n,[[43.510177299999995,16.4408281]\n,\"0x13355dfe0466fc77:0x4d03d4e8d6eaf4d8\",\"Live Museum Split\",\"Museum\",0,\"/g/11crzkwbpy\",null,null, \"5549513262353806552\"]\n,[[43.507207,16.435185399999998]\n,\"0x13355dff49a46b59:0x4dfb5177f9f838d2\",\"Matejuška\",\"Fishing\",0,\"/g/11b806 d6b\",null,null,

## A better approach...





Google Maps API

# Points of interest query

```
https://maps.googleapis.com/maps/api/place/textsearc
h/json?query=things+to+do+split&language=en&key=API_
KEY
```

## JSON response

```
vresults:
  -0:
                                 "Dioklecijanova ul. 1, 21000, Split, Croatia"
      formatted address:
    ▼ geometry:
       ▼ location:
                                 43.5085953
           lat:
                                 16.4402652
           lng:
       ▼ viewport:
         ▼ northeast:
                                 43.50993357989272
              lat:
                                 16.44165272989272
              lng:
          - southwest:
                                 43.50723392010728
              lat:
                                 16.43895307010728
              lng:
                                 "https://maps.gstatic.com/mapfiles/place_api/icons/generic_business-71.png"
     ▼icon:
                                 "a7392592d9ca3c1342164bec9c430a92bdc672cd"
      id:
                                 "Diocletian's Palace"
      name:
```

## Using Python for parsing the response

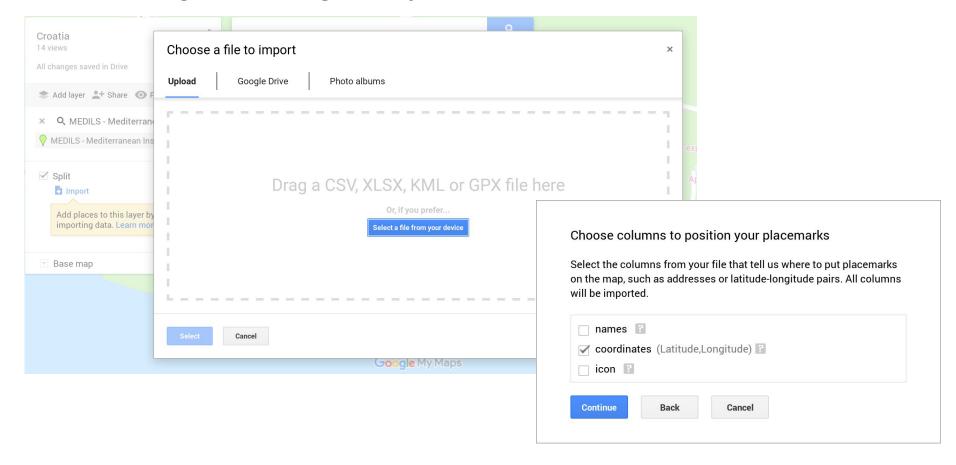
```
# Fetch the data.
    places = requests.get(f'https://maps.googleapis.com/maps/api/place/textsearch/json?query={args.guery}&language=en&key=
    # Convert the response to a JSON object.
    places = json.loads(places.text)['results']
    print(len(places))
    # Create chunks of the arrays (with maximum 10 elements each).
    places = np.array_split(places, np.ceil(len(places) / 10))
    print(len(places))
    # Make the filename more readable, as this will appear as the layer title in Google My Maps.
    query = args.query.split(' ')
    query = ' '.join([q.capitalize() for q in query])
    columns = ['names', 'coordinates', 'icon']
    for i, places_chunk in enumerate(places):
            filename = f'{query}-{i}.csv'
            with open(f'places/{filename}', 'w') as out_file:
                    writer = csv.writer(out_file, delimiter=',')
                    writer.writerow(columns)
                    for place in places chunk:
34
                            name = place['name']
                            icon = place['icon']
                            lat, lng = place['geometry']['location']['lat'], place['geometry']['location']['lng']
                            data = [name, (lat, lng), icon]
                            print(f'{filename} -> {data}')
                            writer.writerow(data)
40
```

#### End result - a CSV file

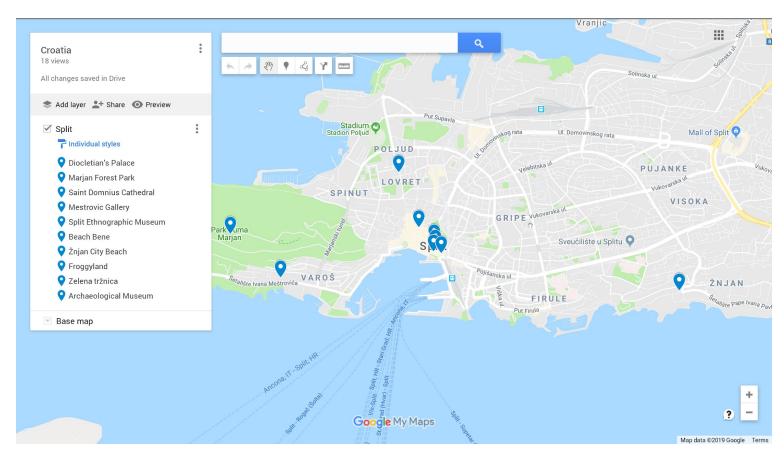
\$ ./fetch-google-maps.py "libraries in split"

	A	В
1	names	coordinates
2	City library Marko Marulić Split - Central Library	(43.5054175, 16.4482639)
3	University of Split Library	(43.5109853, 16.4680552)
4	Gradska Knjiznica Marka Marulica Split	(43.51619059999999, 16.4329559)
5	GKMM - Library Bol-Plokite	(43.5124617, 16.4450777)
6	City Library Marko Marulic, Child Department	(43.508463, 16.4426577)
7	GRADSKA KNJIŽNICA MARKA MARULIĆA, KNJIŽNICA TRSTENIK	(43.5082409, 16.4748893)
8	Sveučilišna knjižnica u Splitu	(43.51009680000001, 16.4416628)

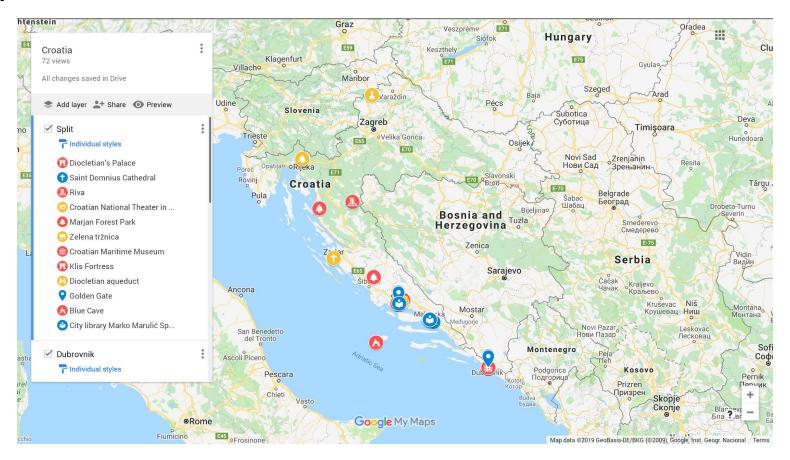
# Importing in Google My Maps



#### Result



## **Improvements**

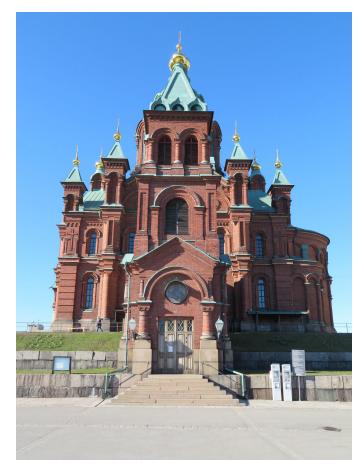


# Nordkjosbotn, Norway



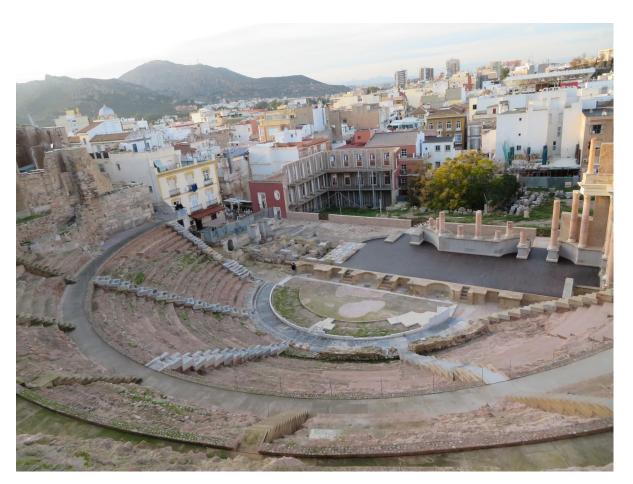


# Helsinki, Finland





# Cartagena, Spain







# Murten, Switzerland





# Dubrovnik, Croatia





# Split, Croatia



#### References

- https://stackoverflow.com/questions/37874018/retrieve-points-of-interests-attractions-tourist-places-of-a-place-country-usi
- https://www.assortedstuff.com/stuff/building-a-my-maps-project-using-a-spreadsheet

#### Source code:

https://gist.github.com/adl1995/a66fa3532364ff87aaaec72be332abe7

# Happy travelling!

Questions?