

Sprint -2

```
import gmplot
import webbrowser
import googlemaps
import gmaps
import time
from make_api_orders import get_routes_from_txt

def plot_map(input_data):

    my_data = get_routes_from_txt(input_data)
    lats=[]
    longs=[]

    for item in my_data[1]:
        lats.append(item[0])
        longs.append(item[1])

    import gmaps
    #configure api
    gmaps.configure(api_key="AIzaSyBOaRY3hQUrF0swlKRnlPKVu8fYrYwlJPs")
    #Define location 1 and 2

    #Create the map
    fig = gmaps.figure()
    #create the layer
    for i in range(len(lats)-1):
        coor0 = (lats[i], longs[i])
        coor1 = (lats[i+1], longs[i+1])

        layer = gmaps.directions.Directions(coor0, coor1,mode='car')
    #Add the layer

        fig.add_layer(layer)
        time.sleep(0.1)
    return (fig)

fig=plot_map("input.txt")
fig
{
    "success": true
}
```

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```
{
  "success": true
}
{
  "success": true
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{
  "success": true
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  "success": true
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{
  "success": true
}
{
  "success": true
}
{
  "success": true
}
{
  "location": {
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UK",
    "checkInTime": 0,
    "latitude": 52.2062306,
    "locationName": "Christ",
    "locationNo": "",
    "longitude": 0.1224627,
    "notes": ""
  },
  "success": true
}
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  "location": {
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    "latitude": 52.186103,
    "locationName": "Homerton",
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    "notes": ""
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  "success": true
}
{
  "location": {
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    "checkInTime": 0,
```

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```
"latitude": 52.2283846,
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"locationNo": "",
"longitude": 0.0836236,
"notes": ""
},
"success": true
}
{
  "location": {
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    "checkInTime": 0,
    "latitude": 52.209043,
    "locationName": "Jesus",
    "locationNo": "",
    "longitude": 0.123381,
    "notes": ""
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  "success": true
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{
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    "locationName": "John",
    "locationNo": "",
    "longitude": 0.114865,
    "notes": ""
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  "success": true
}
{
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      52.2010511,
      0.1056297
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  ],
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    "checkInTime": 0,
    "latitude": 52.2010511,
    "locationName": "selwyn",
    "locationNo": "",
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```

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```
    "notes": ""
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  "success": true
}
{
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{
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      "driverName": "Driver 001",
      "driverSerial": "001",
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      "load2": 14,
      "load3": 0,
      "load4": 0,
      "stops": [
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          "distance": 556,
          "latitude": 52.209043,
          "locationName": "Jesus",
          "locationNo": "",
          "longitude": 0.123381,
          "orderNo": "41",
          "scheduledAt": "08:02",
          "scheduledAtDt": "2020-01-19 08:02:35",
          "stopNumber": 1,
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        }
      ]
    }
  ]
}
```

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```
    },
    {
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      "locationName": "Girton",
      "locationNo": "",
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      "orderNo": "31",
      "scheduledAt": "08:16",
      "scheduledAtDt": "2020-01-19 08:16:10",
      "stopNumber": 2,
      "travelTime": 695
    },
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UK",
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      "distance": 3681,
      "latitude": 52.2087167,
      "locationName": "John",
      "locationNo": "",
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      "scheduledAtDt": "2020-01-19 08:27:28",
      "stopNumber": 3,
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      "arrivalTimeDt": "2020-01-19 08:34:17",
      "distance": 1834,
      "latitude": 52.2010511,
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      "locationNo": "",
      "longitude": 0.1056297,
      "orderNo": "61",
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      "scheduledAtDt": "2020-01-19 08:34:17",
      "stopNumber": 4,
      "travelTime": 289
    },
    {
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```
"address": "Homerton college, Hills Road, Cambridge, CB2
8PH, UK",
"arrivalTimeDt": "2020-01-19 08:43:39",
"distance": 3688,
"latitude": 52.186103,
"locationName": "Homerton",
"locationNo": "",
"longitude": 0.136621,
"orderNo": "21",
"scheduledAt": "08:43",
"scheduledAtDt": "2020-01-19 08:43:39",
"stopNumber": 5,
"travelTime": 442
},
{
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  "arrivalTimeDt": "2020-01-19 08:49:22",
  "distance": 1846,
  "latitude": 52.20055,
  "locationName": "downing",
  "locationNo": "",
  "longitude": 0.126132,
  "orderNo": "71",
  "scheduledAt": "08:49",
  "scheduledAtDt": "2020-01-19 08:49:22",
  "stopNumber": 6,
  "travelTime": 223
},
{
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Cambridge, CB2 3BU, UK",
  "arrivalTimeDt": "2020-01-19 08:55:02",
  "distance": 1188,
  "latitude": 52.2062306,
  "locationName": "Christ",
  "locationNo": "",
  "longitude": 0.1224627,
  "orderNo": "11",
  "scheduledAt": "08:55",
  "scheduledAtDt": "2020-01-19 08:55:02",
  "stopNumber": 7,
  "travelTime": 220
}
],
"vehicleLabel": "001",
"vehicleRegistration": "Vehicle 001"
}
```

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```
],
"success": true
}
{
  "routes": [
    {
      "distance": 17.949,
      "driverExternalId": 'null',
      "driverName": "Driver 001",
      "driverSerial": "001",
      "duration": 57,
      "load1": 7,
      "load2": 14,
      "load3": 0,
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        {
          "address": "Jesus college, Jesus Lane, Cambridge, CB5
8BL, UK",
          "arrivalTimeDt": "2020-01-19 08:02:35",
          "distance": 556,
          "latitude": 52.209043,
          "locationName": "Jesus",
          "locationNo": "",
          "longitude": 0.123381,
          "orderNo": "41",
          "scheduledAt": "08:02",
          "scheduledAtDt": "2020-01-19 08:02:35",
          "stopNumber": 1,
          "travelTime": 155
        },
        {
          "address": "Girton college, Huntingdon Road, Cambridge,
CB3 0JG, UK",
          "arrivalTimeDt": "2020-01-19 08:16:10",
          "distance": 5156,
          "latitude": 52.2283846,
          "locationName": "Girton",
          "locationNo": "",
          "longitude": 0.0836236,
          "orderNo": "31",
          "scheduledAt": "08:16",
          "scheduledAtDt": "2020-01-19 08:16:10",
          "stopNumber": 2,
          "travelTime": 695
        }
      ]
    }
  ]
}
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UK",
    "address": "St John's college, St John's street, CB2 1TP,
    "arrivalTimeDt": "2020-01-19 08:27:28",
    "distance": 3681,
    "latitude": 52.2087167,
    "locationName": "John",
    "locationNo": "",
    "longitude": 0.114865,
    "orderNo": "51",
    "scheduledAt": "08:27",
    "scheduledAtDt": "2020-01-19 08:27:28",
    "stopNumber": 3,
    "travelTime": 558
  },
  {
    "address": "selwyn College, UK",
    "arrivalTimeDt": "2020-01-19 08:34:17",
    "distance": 1834,
    "latitude": 52.2010511,
    "locationName": "selwyn",
    "locationNo": "",
    "longitude": 0.1056297,
    "orderNo": "61",
    "scheduledAt": "08:34",
    "scheduledAtDt": "2020-01-19 08:34:17",
    "stopNumber": 4,
    "travelTime": 289
  },
  {
    "address": "Homerton college, Hills Road, Cambridge, CB2
8PH, UK",
    "arrivalTimeDt": "2020-01-19 08:43:39",
    "distance": 3688,
    "latitude": 52.186103,
    "locationName": "Homerton",
    "locationNo": "",
    "longitude": 0.136621,
    "orderNo": "21",
    "scheduledAt": "08:43",
    "scheduledAtDt": "2020-01-19 08:43:39",
    "stopNumber": 5,
    "travelTime": 442
  },
  {
    "address": "Downing College, UK",
    "arrivalTimeDt": "2020-01-19 08:49:22",
    "distance": 1846,
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```
"latitude": 52.20055,
"locationName": "downing",
"locationNo": "",
"longitude": 0.126132,
"orderNo": "71",
"scheduledAt": "08:49",
"scheduledAtDt": "2020-01-19 08:49:22",
"stopNumber": 6,
"travelTime": 223
},
{
  "address": "Christ's collge, St Andrews Street,
Cambridge, CB2 3BU, UK",
  "arrivalTimeDt": "2020-01-19 08:55:02",
  "distance": 1188,
  "latitude": 52.2062306,
  "locationName": "Christ",
  "locationNo": "",
  "longitude": 0.1224627,
  "orderNo": "11",
  "scheduledAt": "08:55",
  "scheduledAtDt": "2020-01-19 08:55:02",
  "stopNumber": 7,
  "travelTime": 220
}
],
"vehicleLabel": "001",
"vehicleRegistration": "Vehicle 001"
}
],
"success": 'true'
}
[556, 5156, 3681, 1834, 3688, 1846, 1188]
Figure(layout=FigureLayout(height='420px'))
```

In []: