

Lab 9 Client-side web API (Part 2)

Given: Thursday, October 18, 2018

Deadline: Thursday, October 25, 2018

[Lab 9 Client-side web API \(Part 2\)](#)

[What you need to have done within lab hours](#)

[Problem 1 \(3 points\)](#)

[Problem 2 \(4 points\)](#)

[Problem 3 \(3 points\)](#)

What you need to have done within lab hours

Problem 1 (3 points)

Develop the app that allows a user to type in a search term and optional start and end dates, which it will then use to query the Article Search API of New York Times and display the search results as shown in Figure 1.

NY Times news search


Enter a SINGLE search term (required):

Enter a start date (format YYYYMMDD):

Enter an end date (format YYYYMMDD):

[In Thailand, 'Obesity in Our Monks Is a Ticking Time Bomb'](#)

Almost half of Thailand's Buddhist monks are obese, a study found. The government has asked devotees to put healthier food in their daily offerings to slim waistlines.



Keywords:

[Thailand Asks U.K. to Extradite Former Leader Yingluck Shinawatra](#)

Figure 1: The output of searching articles in New York Times

Problem 2 (4 points)

Calling Google Maps API or calling file “restaurants-kk.json” with the keyword “restaurant in Khon Kaen” which you should get the web API output as shown in Figure 2 and then display the result as shown in Figure 3.

```

{
  "html_attributions": [
    "Listings by <a href='\"http://www.openrice.com/\"'>OpenRice</a>"
  ],
  "next_page_token": "CtQDzQEAAAKj__8pDrWigPUgDKMiW53xXOr1f1wDQ6Rt19RdTSQJNvmds0pKbbQD8FpI7IMD18Ss_jMFJdQ1T0M21YncbQ1rdIWxnmJNjTIEDVJUL2n2G2Xgm8jHyYq2IwVKau9H17IHuc6VRfobPgUeAK3AqrIXiGzuD6RXtuSkormAdJskYtrdMzfQFa7LFVArM_TBhORNFYj9kffvWcVfwtBihjvGzqLihCb5YxqebIPoNfzDJQ80hONopfAWnIQg1stIqO6lXMHhD3-Q3GvJAnEKRgprQXYGg9GhShlap8ObiOR_I9hXEEyB5q3fHdg",
  "results": [
    {
      "formatted_address": "280 Rimbeungnongkrot Road, Banped Muang Khonkaen Khon Kaen 4",
      "geometry": {
        "location": {
          "lat": 16.427891,
          "lng": 102.798343
        },
        "viewport": {
          "northeast": {
            "lat": 16.42924082989272,
            "lng": 102.7996928298927
          },
          "southwest": {
            "lat": 16.42654117010728,
            "lng": 102.7969931701073
          }
        }
      },
      "icon": "https://maps.gstatic.com/mapfiles/place_api/icons/restaurant-71.png",
    }
  ]
}

```

Figure 2: JSON output of Google Maps Web API

Some Restaurants in Khon Kaen

1. name = SMILE@WATERSIDE (สมายล์ริมบึงหนองโคตร)
location: lat = 16.427891 lng = 102.798343
2. name = Kronen Brauhaus
location: lat = 16.4294648 lng = 102.8302935
3. name = Didines Mexican/Grill and Craft Beer
location: lat = 16.429085 lng = 102.828924
4. name = Mama Big Restaurant
location: lat = 16.4646772 lng = 102.824277
5. name = Shabushi Buffet Khon Kaen
location: lat = 16.4322722 lng = 102.8251225
6. name = Vacca Italian restaurant
location: lat = 16.4601915 lng = 102.7858646
7. name = Greenleaf Hydrofarm & Restaurant
location: lat = 16.455786 lng = 102.78461
8. name = Yokotai Restaurant
location: lat = 16.4297195 lng = 102.8310107
9. name = Tawanthong Vegetarian Food
location: lat = 16.4336236 lng = 102.8420725
10. name = Little Osaka
location: lat = 16.4598417 lng = 102.8279013
11. name = Sizzler
location: lat = 16.4325664 lng = 102.8259413
12. name = Prapai Potchana Restaurant
location: lat = 16.4605078 lng = 102.7855412

Figure 3: The output of calling Google Maps Web API

Problem 3 (3 points)

Calling at least one web API that you will use in your project. Note that each of student in the same group needs to call different functions of web API.