ANSWER KEY - - - - - - - - - - - - - INFO 102 Lab 10: APIs

Your info: Name: _____ Net ID: _____

Your partner's info: Name: _____ Net ID: _____

We will learn about **using APIs** on the following platform for today's activity: **go.illinois.edu/102api**
Login using the following username: **{{Username}}** Your password is: **{{Password}}**

You will login online using the username above. You will use the system with your partner.
Use the system as a tutorial, and fill out the worksheet working with your partner.

Q1a: Go through the pages explaining **Example 1.** Then, go back to **Example 1.** Modify the code to collect restaurant ratings for Urbana. What is the **6th** restaurant in Urbana?

Timpone's **HINT**: (students should set count to 6, location to 'urbana')

Q1b: Go through the pages explaining **Example 1.** Then, go back to **Example 1.** What happens if you enter a city aside from Champaign or Urbana? Discuss with your partner.

Error 404 (Not Found): {'detail': 'No restaurant data for location: [city]}

HINT: (other cities are not in API, so we expect a Not Found error)

Q1c: After completing Example 1, go to the following URL:
https://one02-api-fastapi.onrender.com/api/restaurants?**count=6&location=urbana**

What do you see? Discuss what might be different methods of sending a request to a URL with your partner.

See a json with an index 0 array listing the name and cuisine of 6 places in urbana.

HINT: This is the same as Q1a - instead of sending a request through Python, we send the same request from our browser. Parameters are in the URL

Q2: Move to **Example 2** and go through the pages explaining Example 2. This example uses a POST request as opposed to a GET request. Discuss with your partner and write down how POST and GET requests are different.

Explain GET vs POST requests - e.g. GET requests retrieve data, POST requests submit/change data

Q3: Complete Exercise 1. Were you able to guess the number correctly? Did you face any challenges?

Open ended question - in the activity, they should have copied and pasted the code from Example 2 (POST request), and change the body object to have a "guess" number and a "netid" string.

Q4: Look at the following URL:

https://www.amazon.com/s?k=lego+sets&i=*toys-and-games*&rh=n%3A165793011%2Cp_36%3A1500-12000%2Cp_n_feature_six_browse-bin%3A23980129011&s=price-asc-rank&dc&qid=1744125975

Discuss what these URL could be searching for and what the parameters could mean with your partner. Write down your guess below. If you want to visit the site, you can use the short URL: go.illinois.edu/102amazon
The URL searches Amazon for lego sets in category “Toys and Games” - the price range is 15 USD to 120 USD , and the prices are sorted ascending

Q5: Think of **one task** that would require you to interact with an API. You can look at the examples in the tutorial for inspiration, but try to write down something different.
Open ended question

Q6: Discuss with your partner: are APIs similar to web scraping? Can you think of one task that can be achieved with both web scraping and APIs?
a)

Open ended question- example: collecting exchange rates, product information, weather, etc

b) For that task, are there any advantages to using one approach over the other?

Open ended question - example: API is paid, web scraping is free / API is easier since it has a structure, web scraping might change

When you’re done, check out with a TA or CA, and hand over this completed worksheet.
Bye!