

CAS CS 411

Software Engineering

Lab 2 - 3rd Party API

Goal

The goal of this lab is to build upon lab 1 and include a 3rd party API call.

For the front-end, we will be using vanilla Javascript. For the back-end, we will be using Python/Flask.

Feel free to use different technologies if you desire. However, these lab instructions will be for the technologies outlined above.

Lab Virtual Environment

New packages have been added to the `requirements.txt` file. Start the virtual environment:

```
source lab1/bin/activate
```

and update the environment with the new software:

```
pip install -r requirements.txt
```

Optionally, you can create a new virtual environment (lab2) using the updated `requirements.txt`.

3rd Party API

We will be using the random.org API as a 3rd party API to help with shuffling cards in the model. Specifically, we will use the [random number generator API call](#) to get a random seed to initialize the Python random package.

We will be using a random seed between 1 and 5 to ensure the deck can only be shuffled into 5 different configurations.

Note, this is a very redundant use-case and is only used to introduce you to using 3rd party APIs in Python.

Implementation

Part 1: Figure out API

The first step is to identify the correct way to call the API and get the desired random number behavior. This step requires no coding. You should:

1. Familiarize yourself with the API endpoint documentation.
2. Create an API request.
3. Test the API request. *Hint, use the curl command to test your API request.*

Part 2: Implementation

To perform API calls in Python, we will be using the `requests` library. Take a look at the [requests documentation](#) to see how calls similar to curl can be made.

The shuffling functionality will occur in the model. We have provided you with the function `_shuffle` which you will need to implement.

This function must:

1. Make an API call to get a random number between 1 and 5.
2. Set the Python random library seed to the number received from the API call.
3. Shuffle the cards.