Python activity COMP 364 | Internet Computing

In this activity, you'll build a Python program that can return different information about Metro Transit bus departures. You'll be using Metro Transit's NexTrip API (http://svc.metrotransit.org/) to get real-time departure data.

Requirements

As a student who rides Metro Transit busses and trains, I should be able to run a Python program to get information about when my bus or train departs at a particular stop.
Acceptance criteria:

- When I run `> python getDepartureTime.py` from the command line, the Python program starts.
- When I input my route number, route direction, and stop via an interactive text prompt, I can view a list of the departure times of the next three buses.
- If I enter a route number, direction, or stop that doesn't exist, I get an error message and can try to enter the data again.

Example (bold text represents user input)

```
> python getDepartureTime.py
> Which bus route are you taking?
> 84
> Which direction are you travelling on route 84? (Enter number)
> 1 for Northbound
> 2 for Southbound
> 2
> Which stop will you depart from? (Enter stop code)
> DASH for Davern St and Shepard Rd
> 7MAY for W 7th St and W Maynard Dr
> CLFO for Cleveland Ave and Ford Pkwy
> 7MAY
> The next bus for route 84 Southbound at W 7th St and W Maynard Dr will arrive in 4 Min
```

Suggestions

- Create a Python class that contains methods for the different API operations (like get_routes(), get_stops(), etc).
- To keep your code modular and organized, you'll also want to create a method on the class that does the actual api request and returns the response, as well as a method that constructs the url for each request.
- Use the **requests** Python module (documentation here) to make the HTTP API requests.
- You can use Python's **raw_input()** method to get input from the user.