

# Daily 16 - Twisted 1

Due April 18th, 2016

## CSE332 Programming Paradigms, Spring 2016

**Overview** Today you will get your feet wet with the Twisted Python library. Twisted is an event-driven networking library. In this assignment, you'll build a small program that will issue a GET request to `student02.cse.nd.edu:40001`.

Your program should start, make a connection to the server, issue a GET command to `/movies/32`, and print out the data from the server to the console. When the connection is closed by the server, a message should be displayed indicating that the connection is lost, and then your program should close.

For each controller and handler you write, you must write two to four sentences describing what it does and how it is called. Your descriptions should demonstrate that you know what is happening under the hood, and not just parroting the function names or similar. Add your descriptions as docstrings.

Example output from my solution program:

```
new connection made to student02.cse.nd.edu port 40001
received data: HTTP/1.1 200 OK
Content-Length: 134
Server: CherryPy/3.2.4
Access-Control-Allow-Credentials: true
Date: Thu, 07 Apr 2016 14:02:38 GMT
Access-Control-Allow-Origin: *
Access-Control-Allow-Methods: GET, PUT, POST, DELETE, OPTIONS
Content-Type: text/html; charset=utf-8
```

```
received data: {"genres": "Drama|Sci-Fi", "title": "Twelve Monkeys (1995)",
"result": "success", "img": "/vxiIABQhiFlfODwamoevrzXvowU.jpg", "id": 32}
lost connection to student02.cse.nd.edu port 40001
```

Remember from the discussion in class that you are using HTTP. The server expects a valid HTTP request and will send you back a valid HTTP response. This assignment should give you a little deeper knowledge about the networking technologies you have used this semester. Also, it will demonstrate how the event driven paradigm is relevant to another domain: in this case networking at a lower level than you worked in with CherryPy or Javascript.

It's very important that you understand the details of the events in this assignment. If you don't, the next Twisted assignments are going to be very difficult. Remember that when you write "connections" in Twisted, you are really just writing controllers in an event driven system. The functions in those connections are **handlers** for events. The "reactor" is just an event processor. The function `run()` in the reactor is just an event loop.

**Turn-in** Package your source code into a zip or tar.gz archive and submit it to `prog.paradigms.secN.sp16@gmail.com` along with the URL to your page.