OSU App Club Meeting Notes

28 October 2020

- RestAPI is the most common way to interact with web servers, and other processing that the backend can do versus the frontend such as computation that is way too complex.
- HTTP Methods for Restful services
  - POST (2nd most common), GET (1st most common), PUT, PATCH, DELETE
- Two main ways to think of Rest (client or server)
  - Client – perspective of application that is using the API that you might have made or someone else might have made
- Example for main.py using the HTTP requests (left-pad.api); this creates the rest API request (client)

  r = requests.get("https://api.left-pad.io/?str=padding&len=68&ch=@")
  r = requests.get("http://localhost:3000/")
  r = requests.post("http://localhost:3000/post", data={"test": "hello world"})
  print(r.text)

- Backend in index.js (server)

  ```
  const express = require('express')
  const app = express()
  const port = 3000
  app.get('/' (req,res) => { // sets up on the application that is created, gets GET request
  res.send('Hello World!') // runs whatever is in here (as a response send this)
  })
  app.listen(port, () => {
  console.log('Example app listening at http://localhost:${port}) // start up the application
  })
  app.post('/post', (req, res) => { // take whatever the body of the request was
  res.send(req.body); // send it back as a response
  console.log(req);
  })
  ```

- What is an API? Application Programming Interface, the idea is that the API allows two software processes to communicate. RestAPI is the most used.

- Weakness with RestAPIs, hard for server to send info to client without client requesting it
- Websites that are a good example are almost every single one, like Google or Facebook
- Google -> Make a YouTube search request for an API to use the top result