Project 1 NGINX Deployment Slides

Joshua Sparks, Northern Kentucky University

Prepared for: Prof. Samuel Cho, ASE 230, Fall 2025

Overview:

The goal of this part of the project was to deploy the REST APIs with **NGINX** in accordance to the following constraints:

- Deployment steps/tutorial documented in Marp slide (and converted into PDFs)
- full points if marp file is made with screen captures, no partial points
- A screen capture of your NGINX server working should be included
- Saved in `presentation/` directory

Steps

1. Locate the nginx.conf file, this can be done by executing `brew info nginx`. Example location:

```
/opt/homebrew/etc/nginx
```

2. CD to the correct file path. Example command:

```
cd /opt/homebrew/etc/nginx
```

3. Perform `nano nginx.conf` to edit the file. Example command:

```
nano nginx.conf
```

Screen Captures:

1.
```
joshsparks@MacBookAir ~ % brew info nginx
==> nginx: stable 1.29.2 (bottled), HEAD
HTTP(S) server and reverse proxy, and IMAP/POP3 proxy server
https://nginx.org/
Installed
/opt/homebrew/Cellar/nginx/1.29.2 (27 files, 2.5MB) *
  Poured from bottle using the formulae.brew.sh API on 2025-10-17 at 15:38:41
From: https://github.com/Homebrew/homebrew-core/blob/HEAD/Formula/n/nginx.rb
License: BSD-2-Clause
==> Dependencies
Required: openssl@3 ✔, pcre2 ✔
==> Options
--HEAD
        Install HEAD version
==> Caveats
Docroot is: /opt/homebrew/var/www

The default port has been set in /opt/homebrew/etc/nginx/nginx.conf to 8080 so t
hat
nginx can run without sudo.

nginx will load all files in /opt/homebrew/etc/nginx/servers/.
```

2.
```
joshsparks@MacBookAir ~ % cd /opt/homebrew/etc/nginx
joshsparks@MacBookAir nginx %
```

3.
```
joshsparks@MacBookAir nginx % nano nginx.conf
```

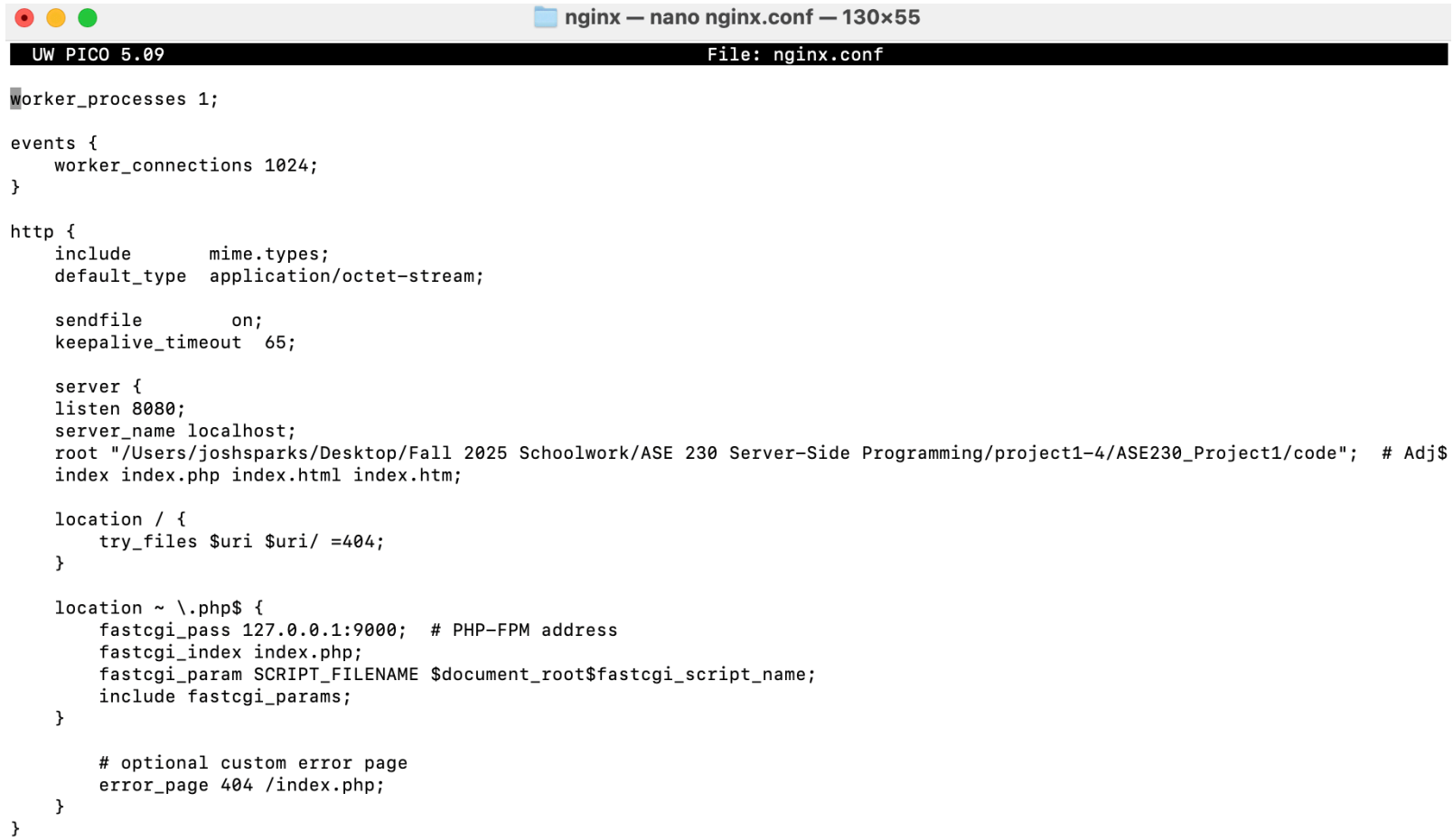
4. Replace the server block with the following:

```
server {
listen 8080;
server_name localhost;
root "/Users/joshsparks/Desktop/Fall 2025 Schoolwork/ASE 230 Server-Side Programming/project1-4/ASE230_Project1/code"; # Adjust path for your system
index index.php index.html index.htm;

location / {
    try_files $uri $uri/ =404;
}

location ~ \.php$ {
fastcgi_pass 127.0.0.1:9000;  # PHP-FPM address
fastcgi_index index.php;
fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
include fastcgi_params;
}
```

Screen Capture:



4.

5. Restart NGINX with the following command:

```
nginx -s reload
```

6. If php is not running, run the following command:

```
brew services start php
```

7. To test NGINX is working properly, go to the following address on your web browser:

```
http://localhost:8080/your_file_path/file_you_want_to_test
```

Screen Captures:

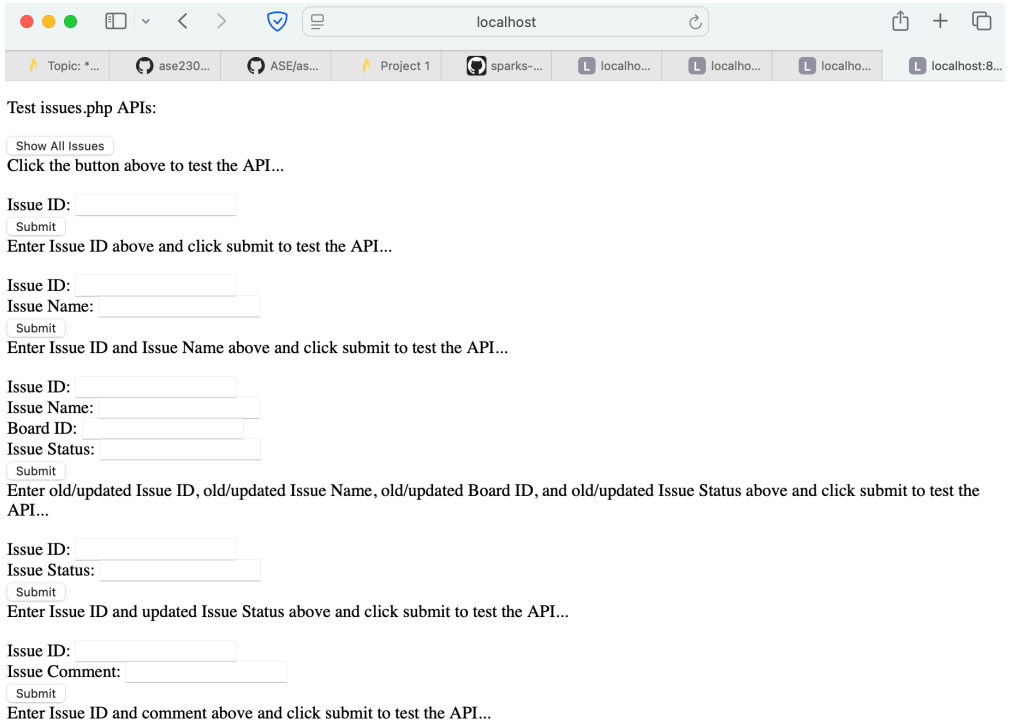
5.
```
joshsparks@MacBookAir nginx % nginx -s reload
joshsparks@MacBookAir nginx %
```

6.
```
joshsparks@MacBookAir ~ % brew services start php
Service `php` already started, use `brew services restart php` to restart.
joshsparks@MacBookAir ~ %
```

My first web address test:

http://localhost:8080/HTML_JavaScript_Tests/issues_api_tests.html

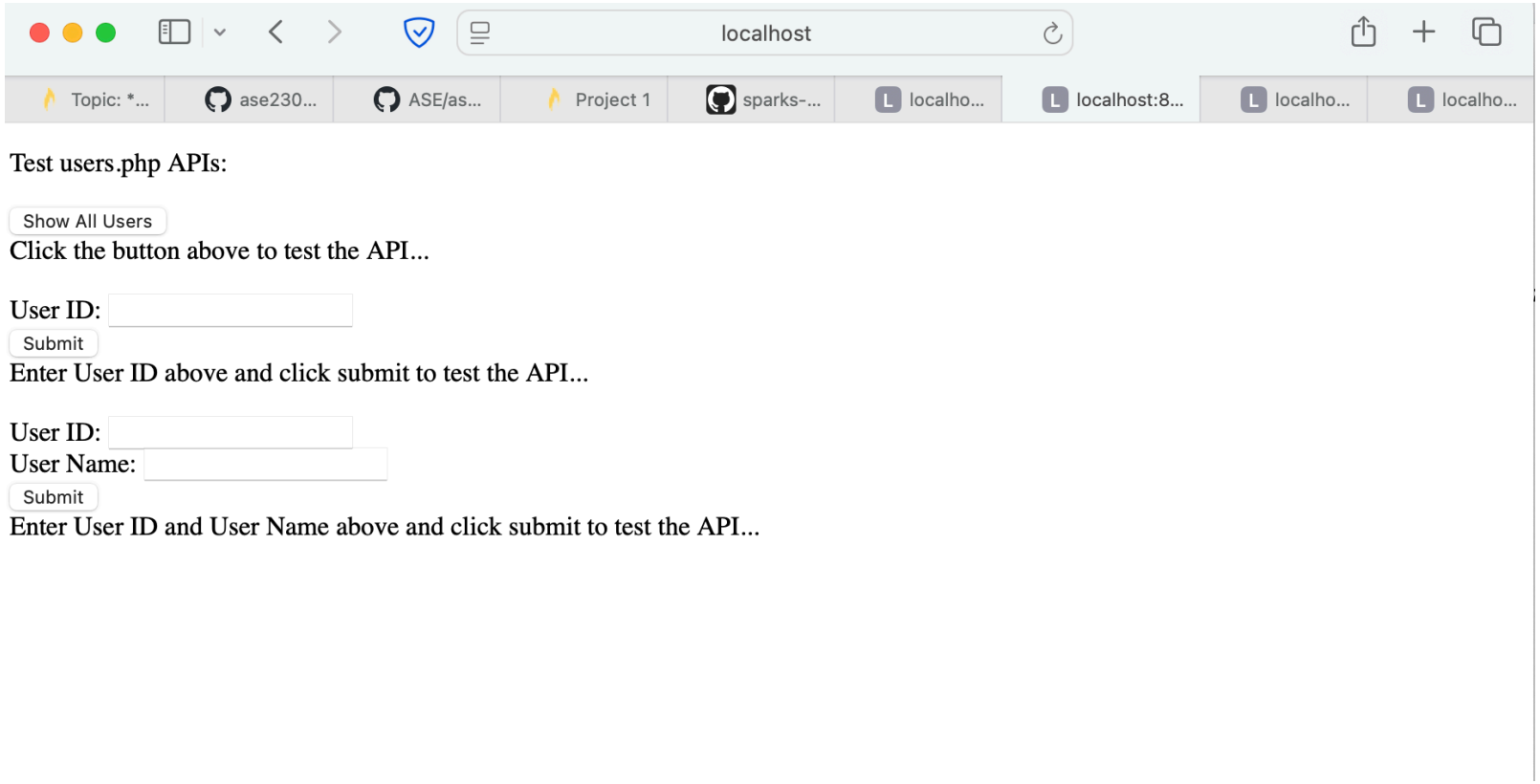
Screen Capture:



My second web address test:

http://localhost:8080/HTML_JavaScript_Tests/users_api_tests.html

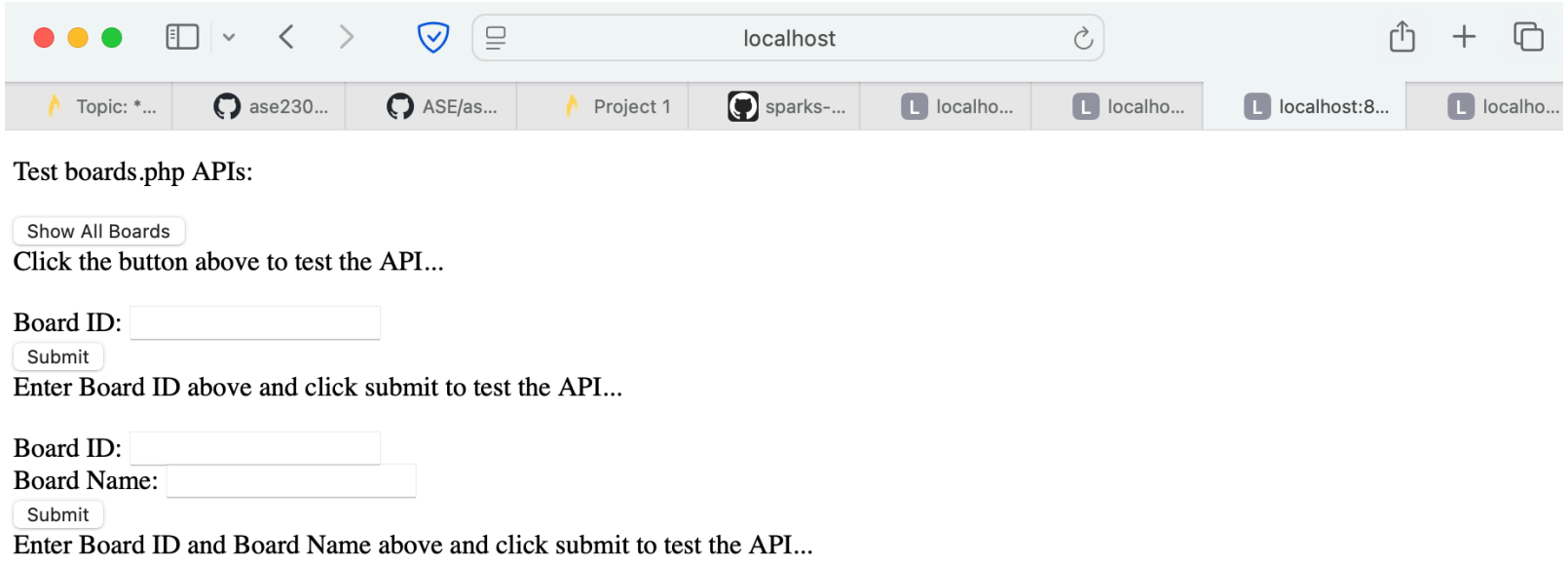
Screen Capture:



My third web address test:

http://localhost:8080/HTML_JavaScript_Tests/boards_api_tests.html

Screen Capture:



References:

Setting up NGINX For PHP.md, pages 15, 16, 21, 25, 26