Lab 4.1 Create location_test.conf

Use the credentials: root/training when accessing the server's command line.

1. Back up the file default.conf

   ```
   mv /etc/nginx/conf.d/default.conf /etc/nginx/conf.d/default.conf.bak
   ```

2. Create a new configuration called location_test.conf

   ```
   vim /etc/nginx/conf.d/location_test.conf
   ```

3. Put the following in the new configuration file location_test.conf

   ```
   server {
     listen 80 default_server;
     server_name localhost;

     location / {
             return 200 "this is the / context \n";
     }


     location /test {
             return 200 "this is the /test location \n";
       }
   }
   ```

4. Save and exit location_test.conf
5. Reload NGINX
6. Use curl to test the uri's. From which location context does NGINX respond?

   ```
   curl http://localhost/
   ```

   The server should respond "this is the / location"

   ```
   curl http://localhost/test
   ```

   The server should respond "this is the /test location"

Lab 4.2 Prefix matching

1. Open location_test.conf
2. Beneath the /test location, add a third location block, as follows:

   ```
   location /test/ {
           return 200 "this is /test/ location \n";
   }
   ```

3. Save and exit the file.

4. Reload NGINX

```
nginx -s reload
```

5. Use curl to test the following URIs to see which location responds.

```
curl http://localhost/test123
```

```
curl http://localhost/test/123
```

```
curl http://localhost/test123/
```

Lab 4.3 Location modifiers

1. Open location_test.conf
2. Update the existing location blocks as follows:

```
location / {
  return 200 "this is the / location \n";
}

location ~* ^/test(\d+)$ {
    return 200 "this is the first regex location, /test$1 \n";
}

location ~ ^/test/(\d+)$ {
        return 200 "this is the second regex location, /test/$1 \n";
}
```

3. Save and exit location_test.conf
4. Reload NGINX
5. Use curl to test the following URIs, noting which location serves the response:

```
curl http://localhost/test1
```

```
curl http://localhost/test/1
```

```
curl http://localhost/test123456
```

```
curl http://localhost/TEST/123456
```

```
curl http://localhost/TEST123456
```

Lab 4.4 More location modifiers

1. Open location_test.conf
2. Add the following prefix location between the two regex locations.

```
location /test/1234 {
  return 200 "this is the /test/1234 prefix location \n";
}
```

3. Save and Exit.
4. Reload NGINX
5. Test the following URIs using curl

```
curl http://localhost/test/12345678

curl http://localhost/test/1234
```

6. Open location_test.conf
7. Add a ^~ modifier to the /test/1234 prefix location such that:

```
location ^~ /test/1234 {
  return 200 "this is the /test/1234 prefix location \n";
}
```

8. Save and exit. Then reload NGINX.
9. Test the following URIs again. How does NGINX respond differently?

```
curl http://localhost/test/12345678

curl http://localhost/test/1234
```

Each lab uses a fresh environment so remember to shut down the environment when done.