

Lab 6: Using Variables

Estimated time for completion: **10 minutes**

Requirements

The following tasks must be completed before beginning this lab:

- Getting Started with NGINX, (the Getting Started Guide in LearnF5)
- Log into Hosted Environment, your lab initialization instructions are located in the LearnF5 course

Scenario

In this exercise, create a server block with three locations to test variable configurations and behavior.

Objectives

At the end of this lab you will be able to:

- Create a configuration file with variables
- Determine effective behavior of variables within different scopes

Lab Contents

Exercise 1: Create a `variable_test.conf` configuration file and test it.



IMPORTANT

You can copy and paste the commands and text from the examples to your terminal or editor, (just make sure you don't copy and paste the \$ prompt!)

Exercise 1: Create a `variable_test.conf` configuration file and test it.

1. Rename your `mywebserver.conf` file to `mywebserver.bak` to make it active:

```
$ cd /etc/nginx/conf.d
$ sudo mv mywebserver.{conf,bak}
```

2. Create a new configuration file as follows:

```
$ sudo vim variable_test.conf
```

3. Add the following configuration:

```
server {
    listen 80;
    root /home/ubuntu/public_html;

    location / {
        return 200 "custom variable is $custom_variable \n";
    }

    location /test1 {
        set $custom_variable 42;
        return 200 "custom variable is $custom_variable \n";
    }

    location /test2 {
        set $custom_variable "null";
        return 200 "custom variable is $custom_variable \n";
    }
}
```

4. Save the file and reload NGINX. (`esc` and `:wq`).

```
$ sudo nginx -s reload
```

5. Test your configuration in the terminal with the following commands:

```
$ curl http://localhost/test1
$ curl http://localhost/test2
```

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

The last 2 curl commands match the catch all `location /` block which does not set a value for the variable `$ custom_variable`.

```
NGINX$ curl http://localhost/test1 custom variable is 42
NGINX$ curl http://localhost/test2 custom variable is null
NGINX$ curl http://localhost/test custom variable is
NGINX$ curl http://localhost/ custom variable is
NGINX$
```

6. Edit the `variable_test_conf` file and set a value of zero for the variable `$ custom_variable` in the server location:

```
$ sudo vim variable_test.conf
```

```
server {
    listen 80;
    root /home/ubuntu/public_html;
    set $custom_variable 0;
    ...
}
```

7. Save the file and reload NGINX. (`esc` and `:wq`).

```
$ sudo nginx -s reload
```

8. Test the same endpoints What changed? What did not? Why?

```
$ curl http://localhost/test1
$ curl http://localhost/test2
$ curl http://localhost/test
$ curl http://localhost
```

```
NGINX$ curl http://localhost/test1 custom variable is 42
NGINX$ curl http://localhost/test2 custom variable is null
NGINX$ curl http://localhost/test custom variable is 0
NGINX$ curl http://localhost/ custom variable is 0
```

The last 2 curl commands STILL match the catch all `location` / block which now inherits the value 0 for the variable `$ custom_variable`.

Expected Results

In these exercises, you were able to create a server block with three locations to test variable configurations and behavior.

