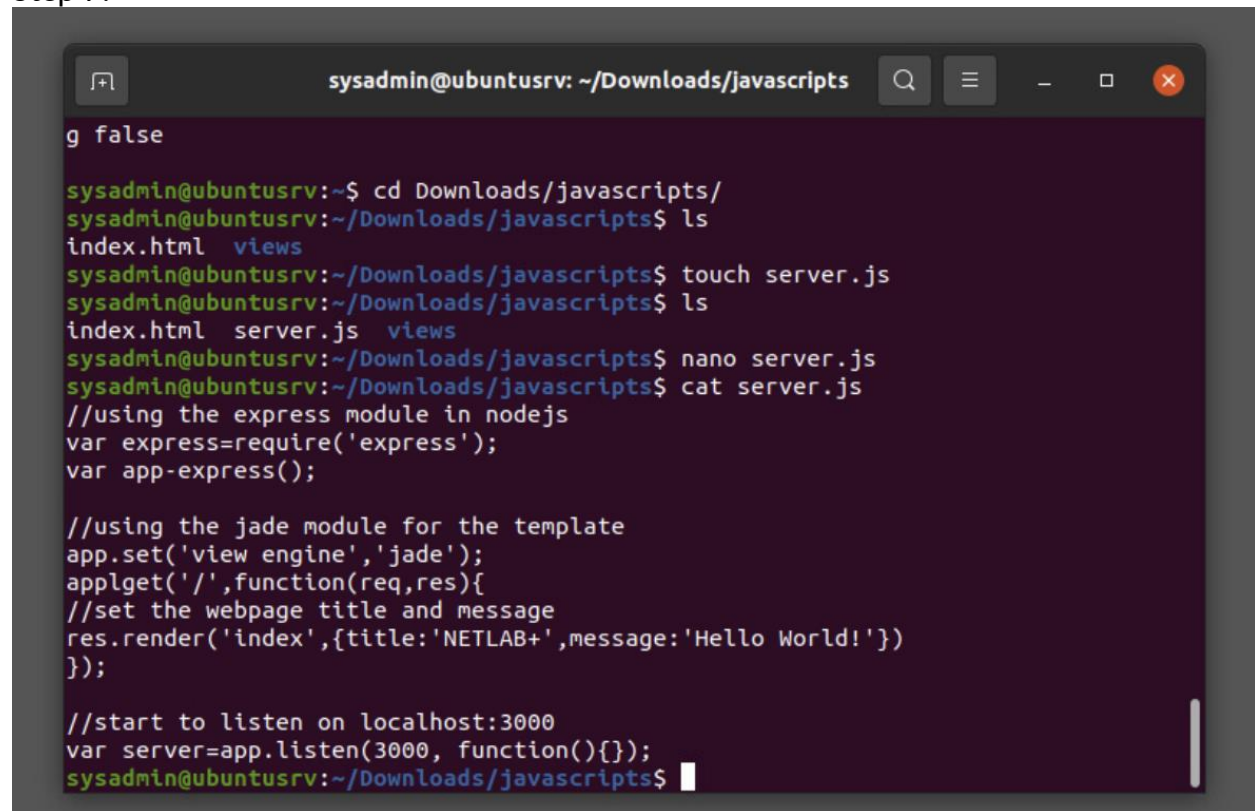


Peter Sanford
IT 2700
NetLab Lab 7
9/9/2023

1.1:

Step 7:



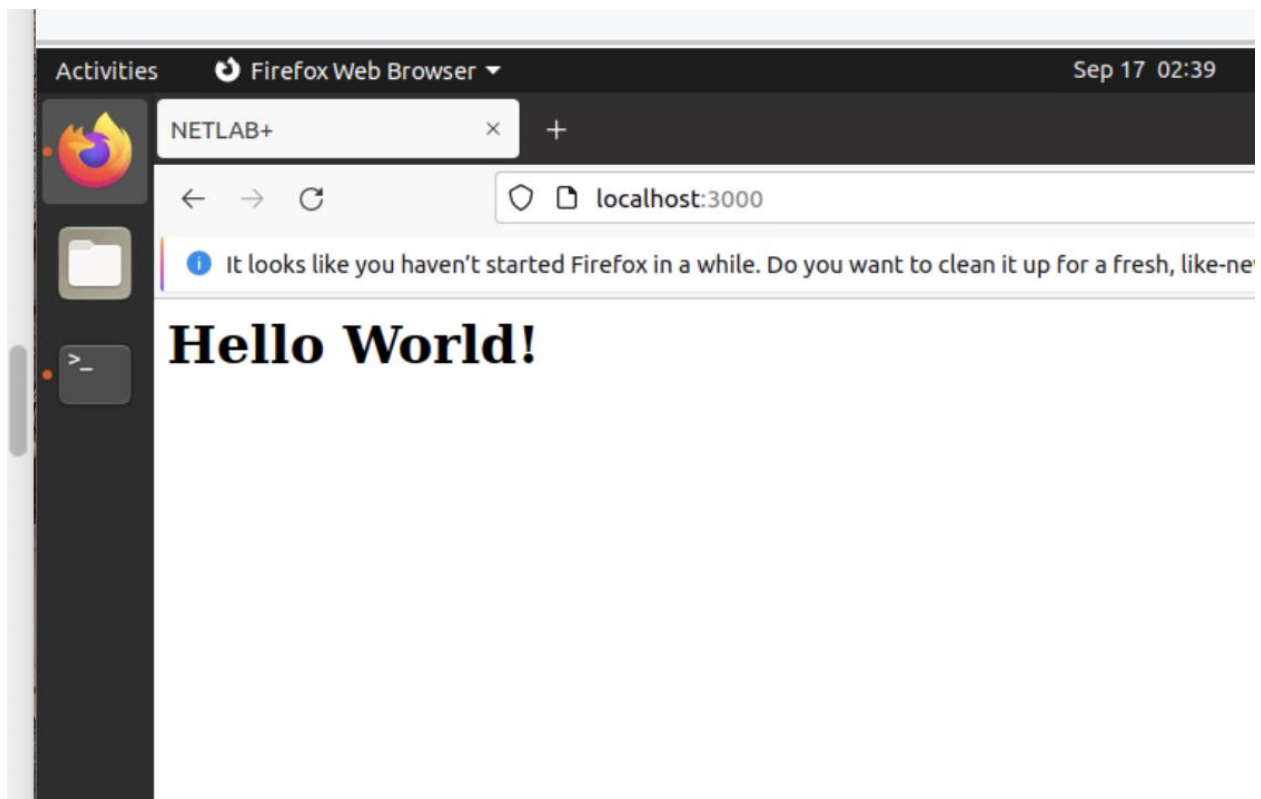
```
sysadmin@ubuntu: ~/Downloads/javascripts
g false

sysadmin@ubuntu:~$ cd Downloads/javascripts/
sysadmin@ubuntu:~/Downloads/javascripts$ ls
index.html  views
sysadmin@ubuntu:~/Downloads/javascripts$ touch server.js
sysadmin@ubuntu:~/Downloads/javascripts$ ls
index.html  server.js  views
sysadmin@ubuntu:~/Downloads/javascripts$ nano server.js
sysadmin@ubuntu:~/Downloads/javascripts$ cat server.js
//using the express module in nodejs
var express=require('express');
var app=express();

//using the jade module for the template
app.set('view engine','jade');
app.get('/',function(req,res){
//set the webpage title and message
res.render('index',{title:'NETLAB+',message:'Hello World!'})
});

//start to listen on localhost:3000
var server=app.listen(3000, function(){});
sysadmin@ubuntu:~/Downloads/javascripts$
```

Step 12:



Step 15:

```
sysadmin@ubuntu: ~/Downloads/javascripts
});

//start to listen on localhost:3000
var server=app.listen(3000, function(){});
sysadmin@ubuntu: ~/Downloads/javascripts$ cat server-obfu.js
var a0_0x30b67f=a0_0x1755;(function(_0x46c3bc,_0x263f07){var _0x1f7b67=a0_0x1755
,_0x4732cc=_0x46c3bc();while(![]){try{var _0x3208fb=parseInt(_0x1f7b67(0x75))/0
x1*(-parseInt(_0x1f7b67(0x86))/0x2)+parseInt(_0x1f7b67(0x85))/0x3+-parseInt(_0x1
f7b67(0x7c))/0x4*(parseInt(_0x1f7b67(0x82))/0x5)+-parseInt(_0x1f7b67(0x77))/0x6+
-parseInt(_0x1f7b67(0x7a))/0x7*(-parseInt(_0x1f7b67(0x78))/0x8)+-parseInt(_0x1f7
b67(0x84))/0x9+parseInt(_0x1f7b67(0x7e))/0xa;if(_0x3208fb===_0x263f07)break;else
_0x4732cc['push'](_0x4732cc['shift']());}catch(_0x29044c){_0x4732cc['push'](_0x
4732cc['shift']());}}}(a0_0x4bde,0x8c169));var express=require(a0_0x30b67f(0x81)
),app=express();function a0_0x1755(_0x1a78dc,_0xc4763a){var _0x4bdee3=a0_0x4bde(
);return a0_0x1755=function(_0x17558a,_0x5a7134){_0x17558a=_0x17558a-0x75;var _0
x3174d6=_0x4bdee3[_0x17558a];return _0x3174d6;},a0_0x1755(_0x1a78dc,_0xc4763a);}
app['set'](a0_0x30b67f(0x80),'jade'),app[a0_0x30b67f(0x7b)]('/',function(_0x150e
fb,_0x21c2d3){var _0x4e814a=a0_0x30b67f;_0x21c2d3[_0x4e814a(0x7f)](_0x4e814a(0x8
3),{'title':_0x4e814a(0x7d),'message':_0x4e814a(0x79)}));});var server=app[a0_0x3
0b67f(0x76)](0xbb8,function(){});function a0_0x4bde(){var _0x38ebc5=['40iqCHfA',
'index','2531817vmdSOJ','1645806KcwDSZ','75702RBMjEI','1KGqYep','listen','530354
4WuLBDt','8mYjoFx','Hello\\x20World!','554687iShGCR','get','1544siNnoZ','NETLAB+',
'11521340JCSpxu','render','view\\x20engine','express'];a0_0x4bde=function(){retu
rn _0x38ebc5;};return a0_0x4bde();}sysadmin@ubuntu: ~/Downloads/javascripts$
```

1.2:

Step 3:

```
sysadmin@ubuntusrv: ~/Downloads/javascripts
sysadmin@ubuntusrv:~$ cd Downloads/javascripts/
sysadmin@ubuntusrv:~/Downloads/javascripts$ ls
index.html  server.js  server-obfu.js  views
sysadmin@ubuntusrv:~/Downloads/javascripts$ touch my_javascript.js
sysadmin@ubuntusrv:~/Downloads/javascripts$ ls
index.html  my_javascript.js  server.js  server-obfu.js  views
sysadmin@ubuntusrv:~/Downloads/javascripts$ nano my_javascript.js
sysadmin@ubuntusrv:~/Downloads/javascripts$ python3 -m http.server
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...
127.0.0.1 - - [17/Sep/2023 02:45:04] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [17/Sep/2023 02:45:04] "GET /my_javascript.js HTTP/1.1" 200 -
127.0.0.1 - - [17/Sep/2023 02:45:04] code 404, message File not found
127.0.0.1 - - [17/Sep/2023 02:45:04] "GET /favicon.ico HTTP/1.1" 404 -
```

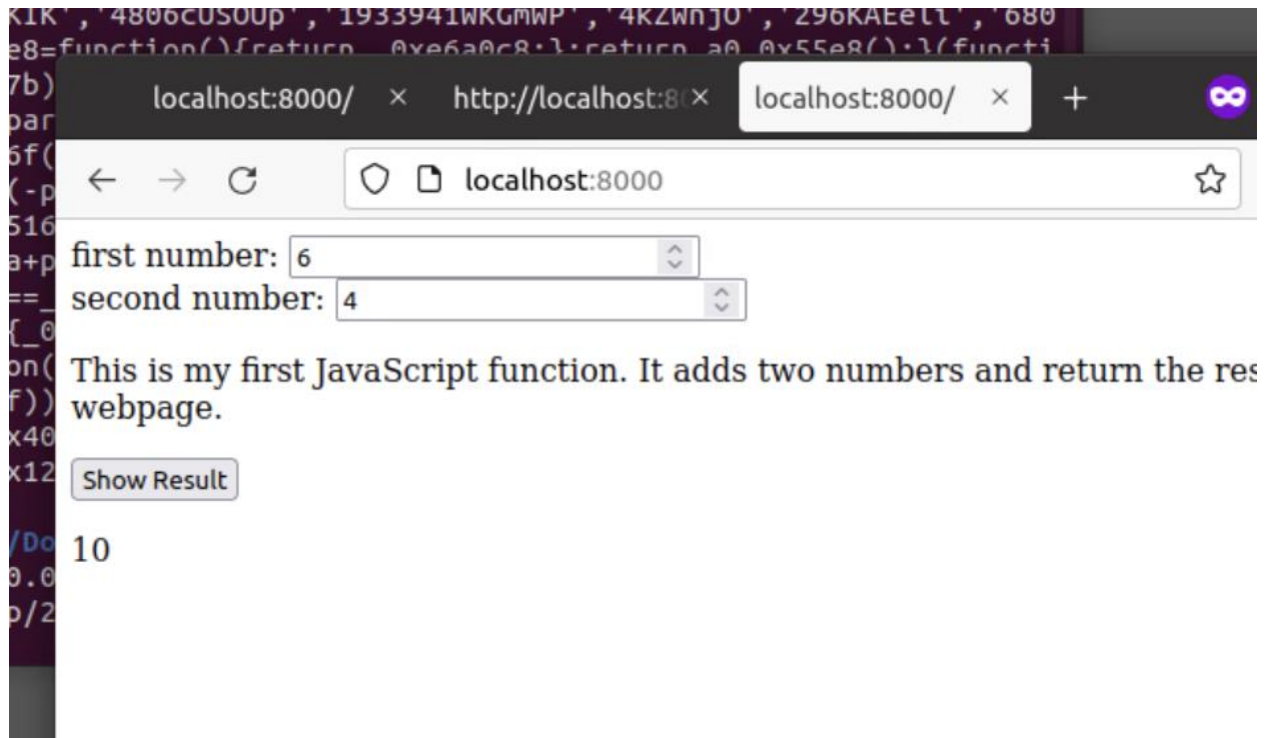
Step 8:

```
localhost:8000/ × http://localhost:8000/my_jav× +
view-source:http://localhost:8000/my_javascript.js

function addition() {
    var a = +document.getElementById("fstnumber").value;
    var b = +document.getElementById("secnumber").value;

    document.getElementById("result").innerHTML = a+b;
}
```

Step 12:



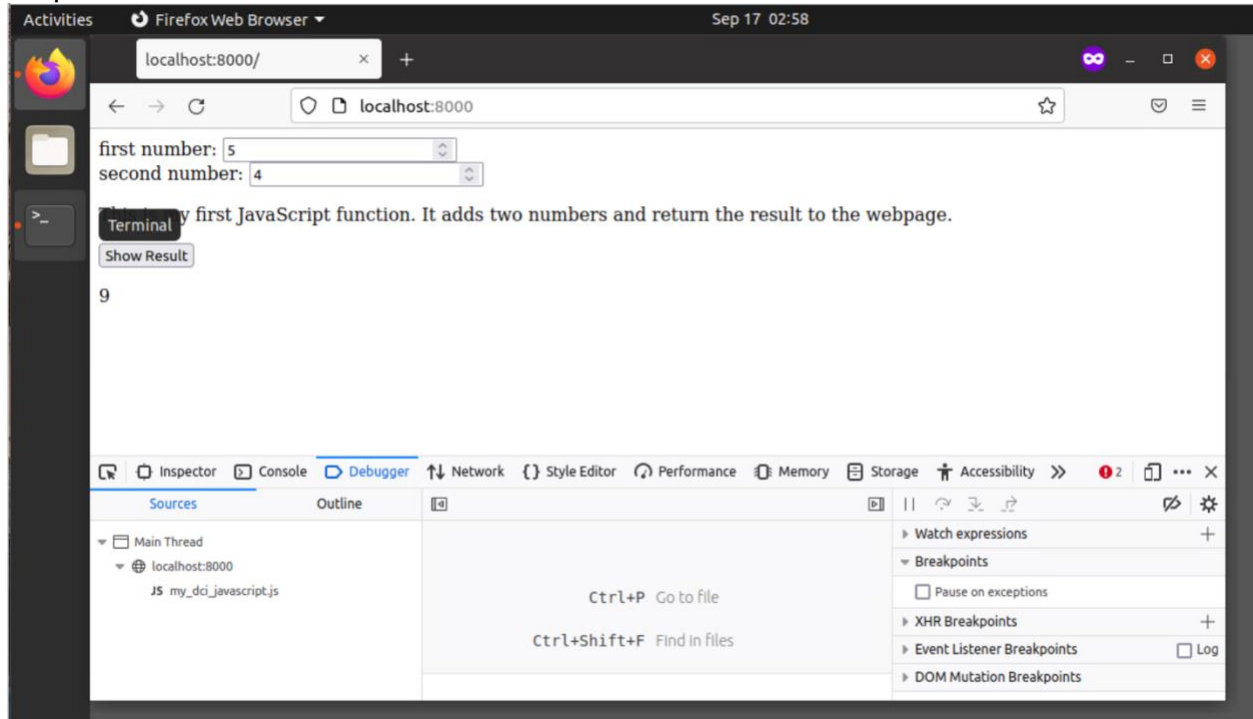
2.1:

Step 3:

```
sysadmin@ubuntu: ~/Downloads/javascripts
[javascript-obfuscator-cli] Obfuscating file: my_javascript.js...
sysadmin@ubuntu: ~/Downloads/javascripts$ ls
index.html          my_javascript.js    server.js           views
my_dci_javascript.js  my_obfujavascript.js  server-obfu.js
sysadmin@ubuntu: ~/Downloads/javascripts$ cat my_dci_javascript.js
(function(_0x19f238,_0x287d52){var _0x120df5=a0_0x3263,_0x2f1feb=_0x19f238();whi
le(![]){try{var _0x22d359=-parseInt(_0x120df5(0x1e6))/0x1+-parseInt(_0x120df5(0
x1e3))/0x2*(parseInt(_0x120df5(0x1dc))/0x3)+parseInt(_0x120df5(0x1e9))/0x4*(pars
eInt(_0x120df5(0x1ea))/0x5)+-parseInt(_0x120df5(0x1e1))/0x6*(-parseInt(_0x120df5
(0x1e0))/0x7)+-parseInt(_0x120df5(0x1e7))/0x8+-parseInt(_0x120df5(0x1de))/0x9*(p
arseInt(_0x120df5(0x1e8))/0xa)+parseInt(_0x120df5(0x1df))/0xb;if(_0x22d359===_0x
287d52)break;else _0x2f1feb['push'](_0x2f1feb['shift']());}catch(_0x29f497){_0x2
f1feb['push'](_0x2f1feb['shift']());}}}(a0_0x3c50,0x9beca));function addition(){
var _0x1cca5c=a0_0x3263,_0x31a0fb+=document['getElementById'](_0x1cca5c(0x1e2))[_
_0x1cca5c(0x1e5)],_0x50bb82+=document['getElementById'](_0x1cca5c(0x1dd))['value
'];document[_0x1cca5c(0x1e4)]('result')[_0x1cca5c(0x1db)]=_0x31a0fb+_0x50bb82;}f
unction a0_0x3263(_0x55a3c4,_0x133a31){var _0x3c50eb=a0_0x3c50();return a0_0x326
3=function(_0x32632e,_0x119e44){_0x32632e=_0x32632e-0x1db;var _0x3a3ab6=_0x3c50e
b[_0x32632e];return _0x3a3ab6;},a0_0x3263(_0x55a3c4,_0x133a31);}function a0_0x3c
50(){var _0x382f0e=['941302vfdgTJ','getElementById','value','657380wrRnId','8981
728dTyVnY','2082390ZPxLYR','4BsTUDUV','409180XTnprG','innerHTML','6qCVmeL','secnu
mber','54AQhKrM','37775727HoQfAF','7Brsnvz','6561030XqwaPS','fstnumber'];a0_0x3c
50=function(){return _0x382f0e;};return a0_0x3c50();}sysadmin@ubuntu: ~/Downlo
ads/javascripts$
```

2.2:

Step 4:



Commentary:

In this lab we used the obfuscator to change the code that users can see in the web browser. This can protect your proprietary information and code from the user. I learned that there are ways for people to hide their code from the user, which makes it harder for others to copy your website, and also doesn't show your vulnerabilities as openly. Knowing this information, companies and website developers can use these obfuscating tricks to keep their code safe, and to also make it harder to debug their websites. There's also more options that they can use with this tool too.