CSEN 1001 Computer and Network Security
Assigment 1

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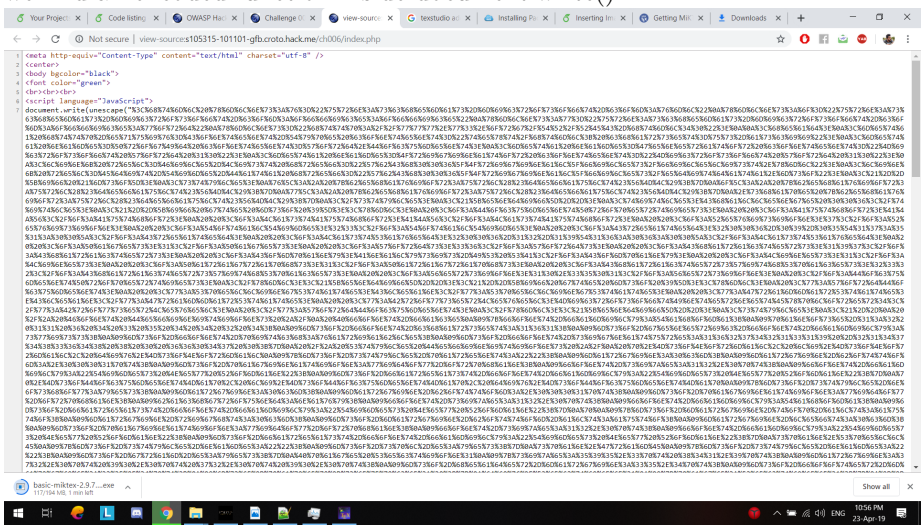
1 Password Validation Bugs

1. Get the page source
2. we find an encoded function inside document.write()



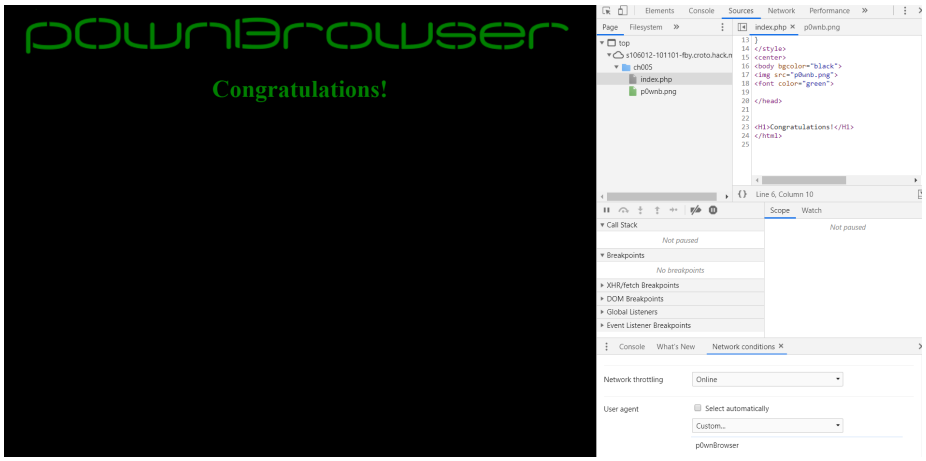
3. Use this link to decode the funcation https://meyerweb.com/eric/tools/dencoder/

4. The output is an html code that contains this snippet

```
function GetPassInfo(){
if (document.forms[0].PassPhrase.value == 'easyyyyyyy
    !')
        location.href="index.php?Result=easyyyyyyy!";
else
        alert("Wrong Code...!!");
}
```

5. so the password is easyyyyyyy!

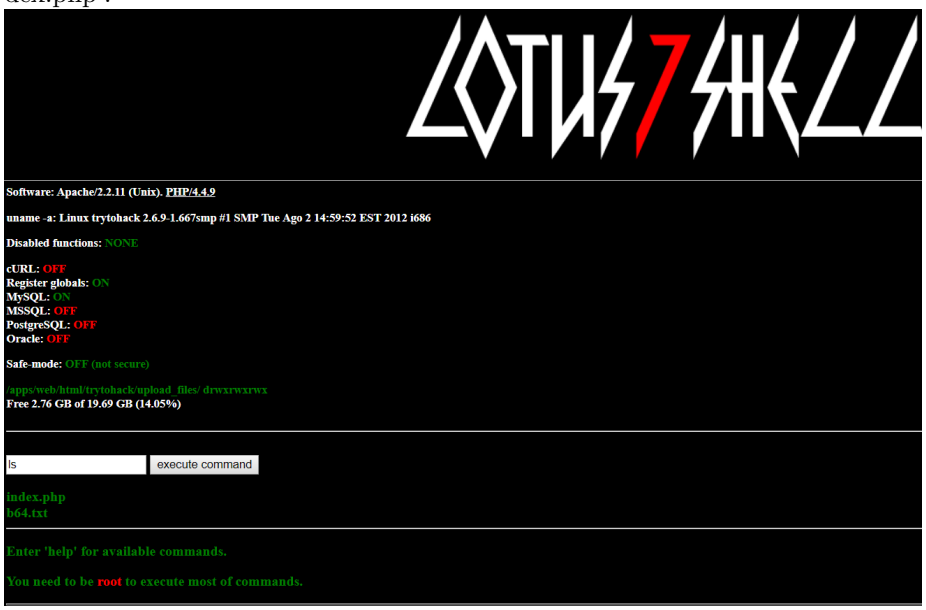
2 Header Manipulation



We can trick the website by modifying the user-agent. We can change it to be p0wnBrowser. Side note: I thought that I have to type the version of the browser so it was "p0wnBrowser/1.0" but actually it is the other way around, WTH. Too much time wasted on that one.

3 Command injection / lazy Admin

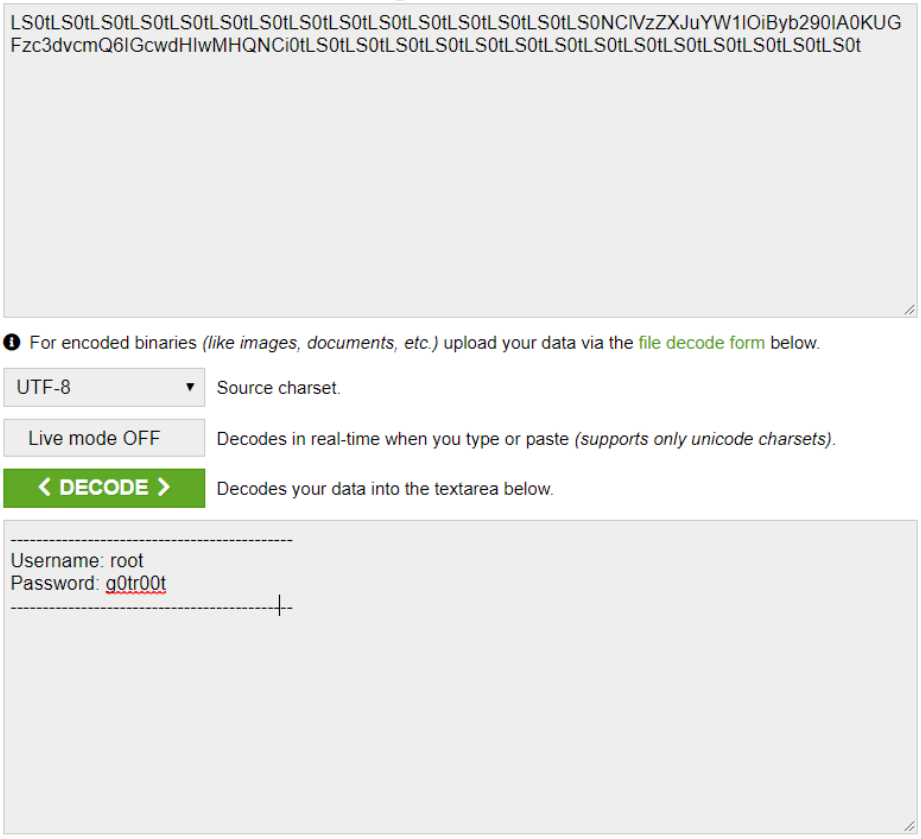
Executing the 'ls' command tells us the files that are in the current working directory. We can see that there is a file called 'b64.txt' alongside with 'index.php'.



From the ‘URL‘ we can see remove ‘index.php‘ and insert ‘b64.txt‘ instead. This will open the ‘b64.txt‘ file and we can see its content.

LS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0NClVzZXJuYW1lOiByb290IA0KUGFzc3dvcmQ6IGcwdHIwMHQNCi0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0tLS0t

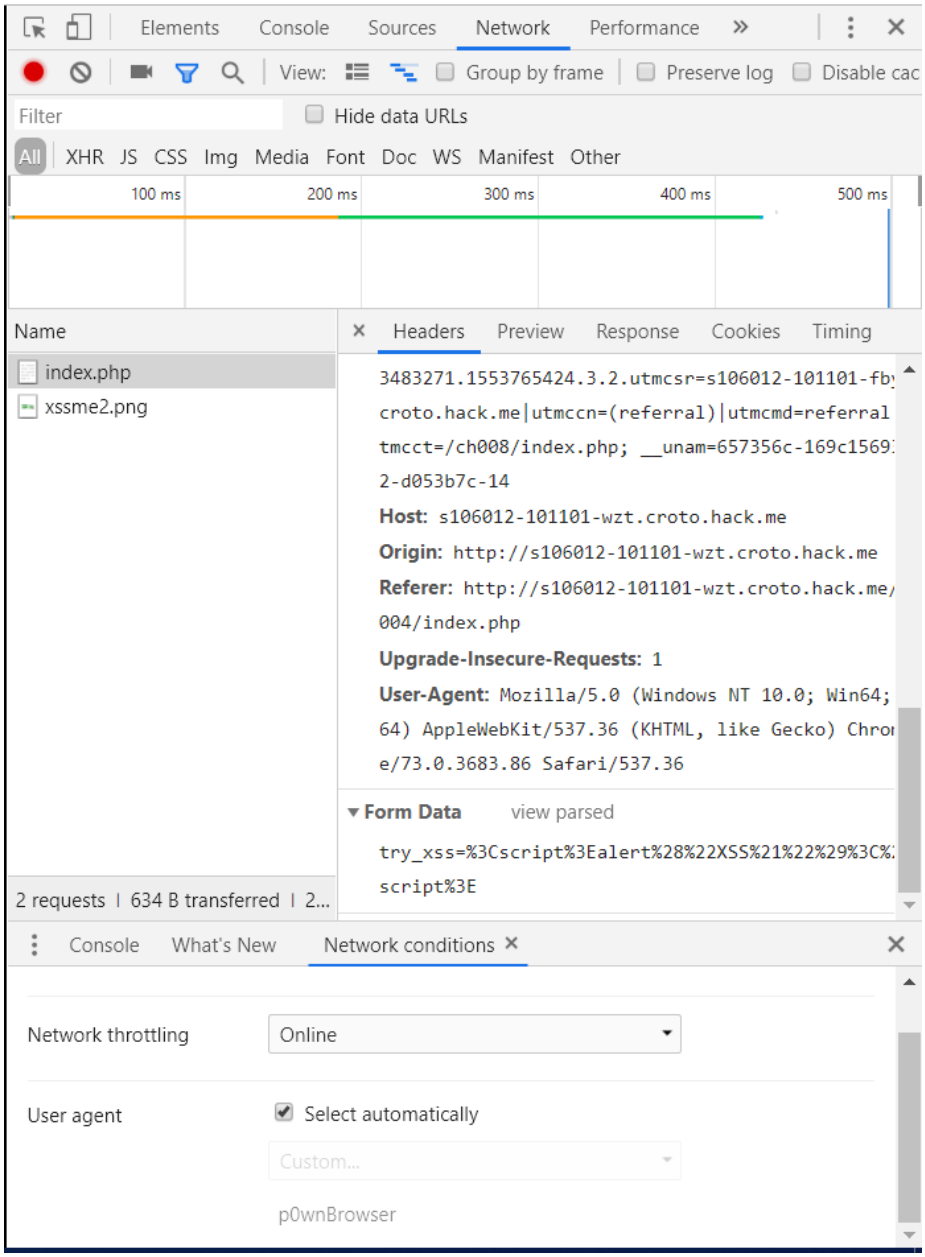
t looks like it is written in base 64. By decoding it using any online decoder, we can obtain the user name and pass for the root.



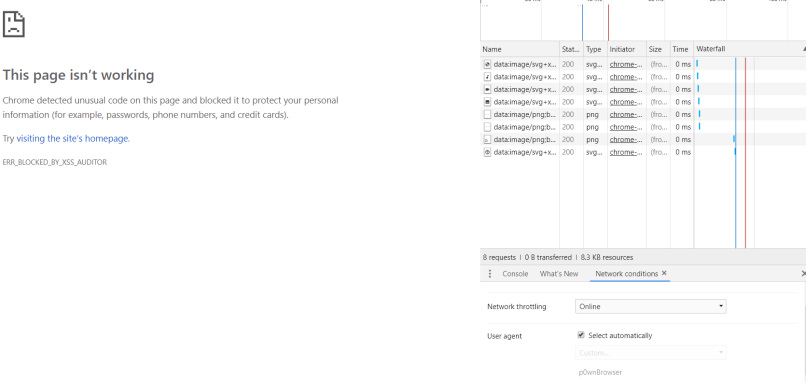
We can not execute the su command and give it these username and pass.

4 XSS

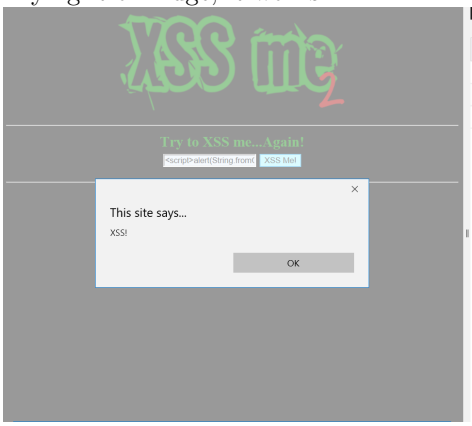
We can try to inject the following JS code ‘¡script¿alert(“XSS!”)¡/script¿‘ but this won’t work because the site encodes any quotes (single or double quotes). We can check if that is the case by looking at the form data in the developer tools.

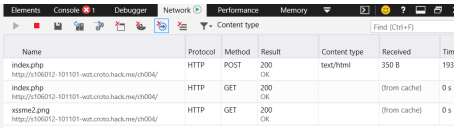


A work around for it is not to use any quotes in the command. In JS, there is a function called 'String.fromCharCode'. It takes the ascii code of the characters and evaluates them. There are not quotes now in the command. Trying this on google chrome, I get this error page



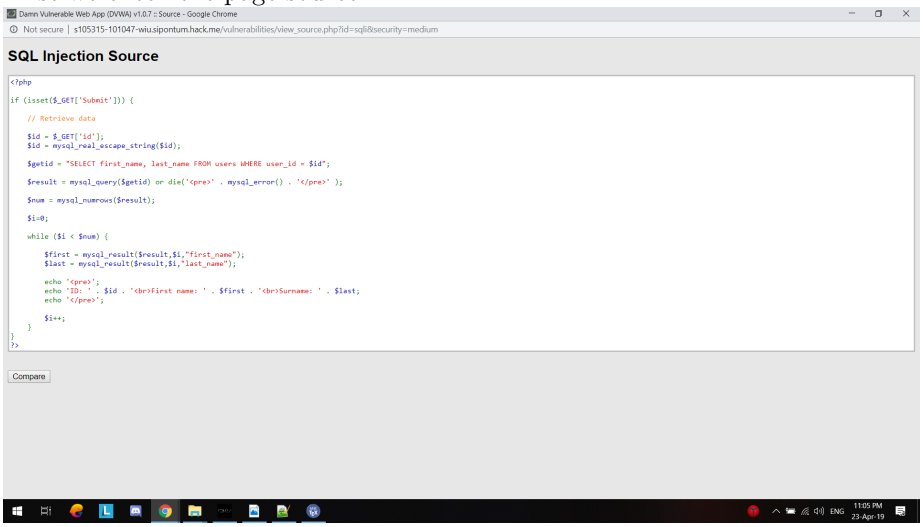
Good boy, Chrome!
Trying it on Edge, it works





5 SQL injection

1. First we check the page source



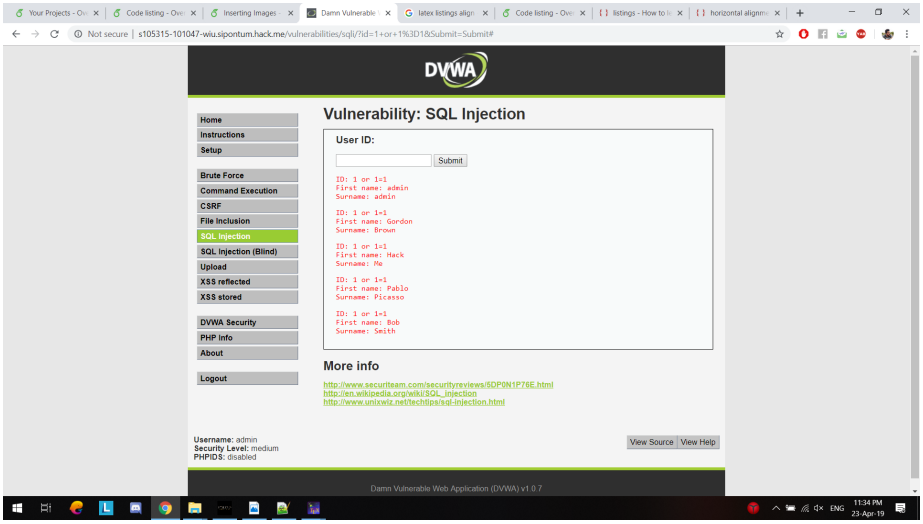
2. We can see the two following lines

```
$id = mysql_real_escape_string($id);

$getid = "SELECT first_name, last_name FROM users
    WHERE user_id = $id";
```

of which the first means that we can't use string while the other is the sql command

3. we write 1 or 1=1 and submit



The reason it works is that command becomes

```
SELECT first_name, last_name FROM users WHERE user_id = 1 or 1=1
```

which chooses all rows because 1=1 for all rows