

# ACM

Week 3 writeup:

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SIG: CYBER

TASKS WEEK 3

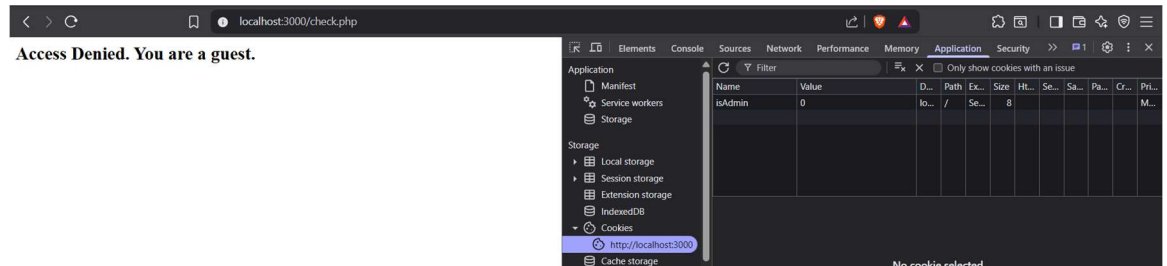
## TASK 1:

- i) I have entered into to <http://localhost:3000>.

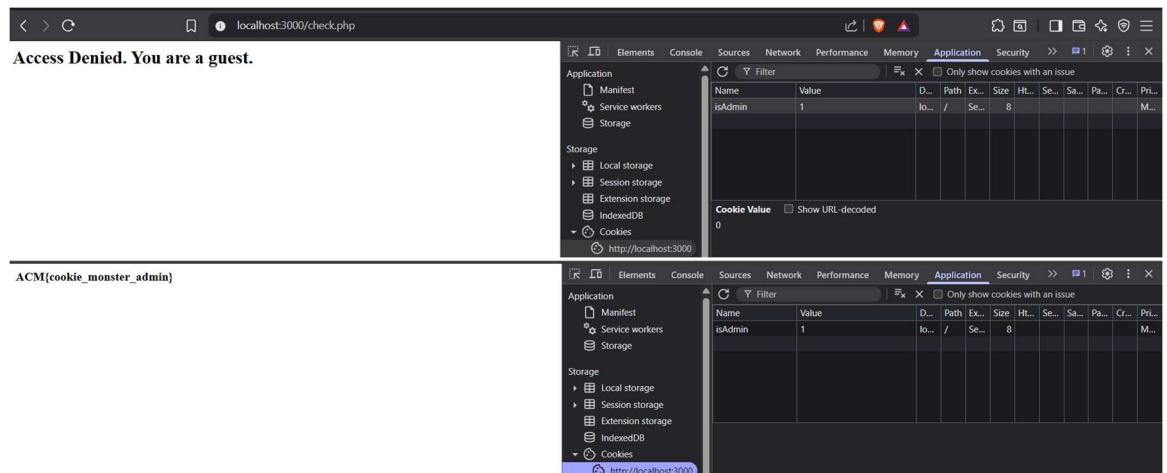


**Access Denied. You are a guest.**

- ii) Then on inspecting the page I found that the value of cookie for localhost is 0:



- iii) Then I tried it to change it to 1 and reloaded the page so that I found the flag:



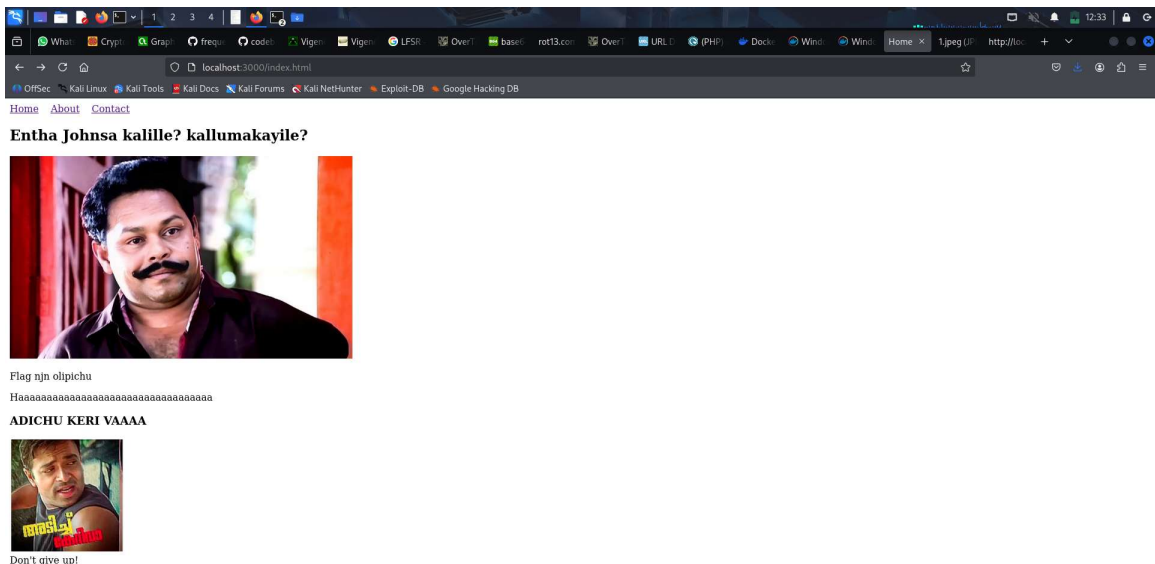
So the flag is : **ACM{COOKIE\_MONSTER\_ADMIN}**

### Tech explanation:

- iv) This is a cookie-based access control vulnerability. So in this challenge the thing is the server gets the value of cookie as 0 which means the server decides that the user is a guest and if we change that to 1 to make the server to feel that the user is the admin and show the data. Hence, we find the data.
- v) It is also some sort of cookie manipulation or tampering.

### TASK 2:

- i) This is a base64 flag that is found in about.html page.
  - ii) On inspecting the about.html page we will find a base64 encoded data that can be decoded using an online base64 decoder.
  - iii) The flag is “RmxhZ3tpbnNwZWNOX2ZsYWdfY2hhbmdlfQ==”.
- Upon opening the local host I found this and tried to find the flag by saving the pictures that does not work.



- iv) so I tried to find the hidden directories in this page using “dirb”

```

(mohith@kali)-[~]
$ dirb http://localhost:3000
_ _ _ _ _
DIRB v2.22
By The Dark Raver
_ _ _ _ _

START_TIME: Sun Aug 3 12:35:18 2025
URL_BASE: http://localhost:3000/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt

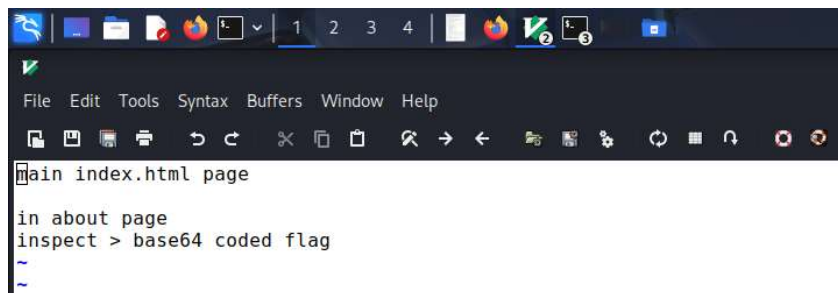
_ _ _ _ _
GENERATED WORDS: 4612

_ _ _ _ _ Scanning URL: http://localhost:3000/ _ _ _ _ _
+ http://localhost:3000/index.html (CODE:200|SIZE:1390)
+ http://localhost:3000/readme (CODE:200|SIZE:64)

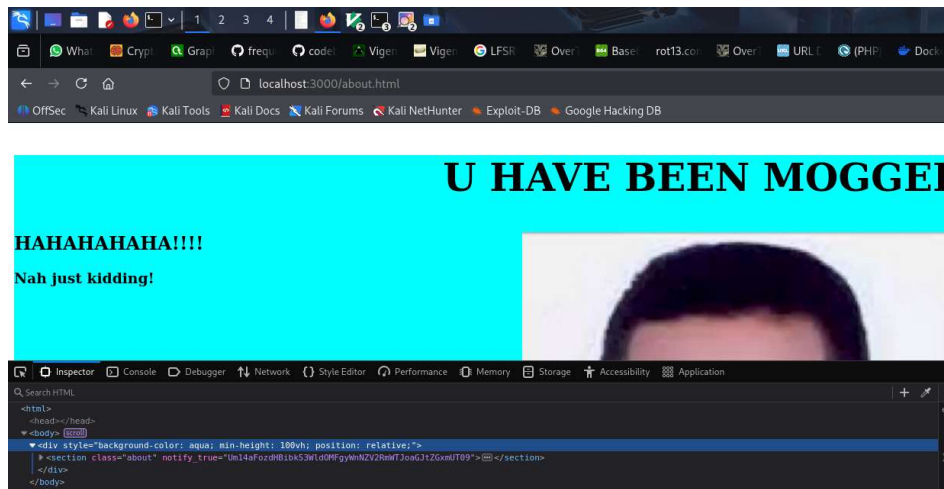
_ _ _ _ _
END_TIME: Sun Aug 3 12:35:24 2025
DOWNLOADED: 4612 - FOUND: 2

```

v) here I found that there is a readme thing so I tried going to I using <http://localhost:3000/readme>.



vi) this gave me an idea to get the base64 encoded data as below by navigating to about page and inspecting as below.

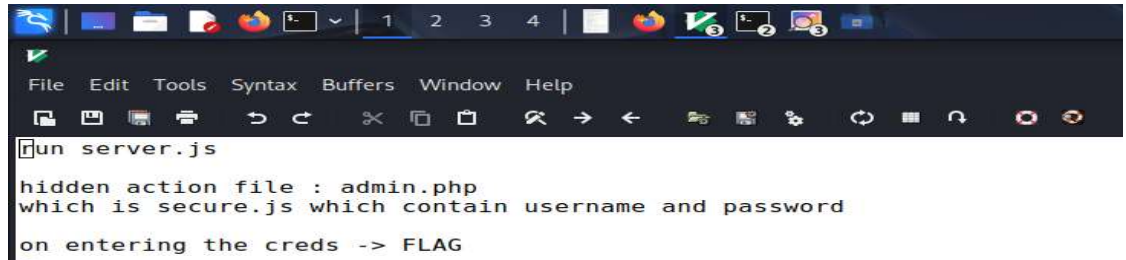


Tech explanation:

- vi) This technique is a encoded data hiding in the coded scripts and the flag is hidden most commonly base64, ROT13, hex and URL encoded form.
- vii) This is just the analysis of the web page scripts.

### TASK 3:

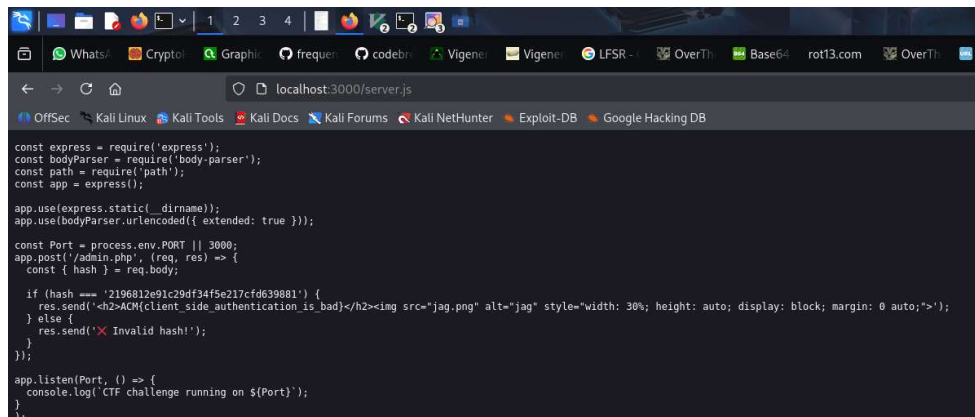
- i) I tried to find the hints in this. So, I tried to open “readme” and I used <http://localhost:3000/readme>.
- ii) Then I found the following details



```
run server.js

hidden action file : admin.php
which is secure.js which contain username and password
on entering the creds -> FLAG
```

- iii) so I modified the url to <http://localhost:3000/server.js> then that has the following data.



```
const express = require('express');
const bodyParser = require('body-parser');
const path = require('path');
const app = express();

app.use(express.static( __dirname ));
app.use(bodyParser.urlencoded({ extended: true }));

const Port = process.env.PORT || 3000;
app.post('/admin.php', (req, res) => {
  const { hash } = req.body;

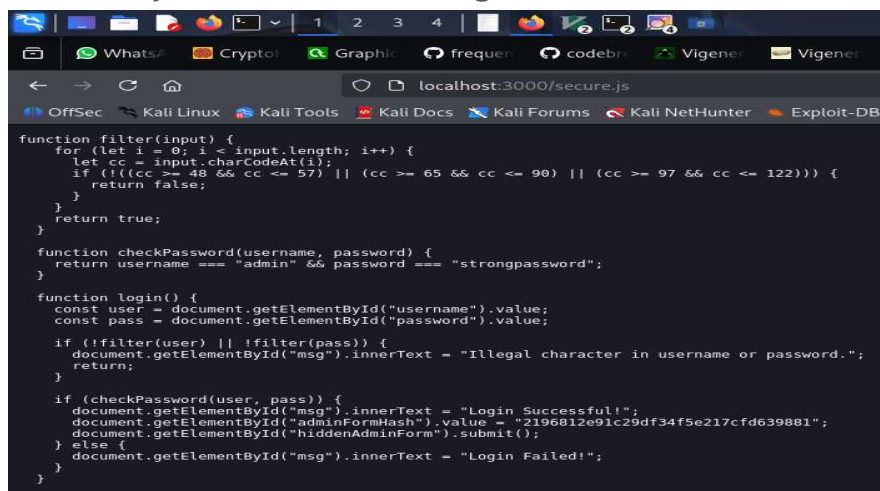
  if (hash === '2196812e91c29df34f5e217cfd639881') {
    res.send('<h2>ACM(client_side_authentication_is_bad)</h2>');
  } else {
    res.send('X Invalid hash!');
  }
});

app.listen(Port, () => {
  console.log('CTF challenge running on ${Port}');
});
```

But this confused me so I re-checked the data given in readme again so I found that we can also try

<http://localhost:3000/secure.js>.

- iv) In secure.js I found the following data



```
function filter(input) {
  for (let i = 0; i < input.length; i++) {
    let cc = input.charCodeAt(i);
    if (!(cc >= 48 && cc <= 57) || (cc >= 65 && cc <= 90) || (cc >= 97 && cc <= 122)) {
      return false;
    }
  }
  return true;
}

function checkPassword(username, password) {
  return username === "admin" && password === "strongpassword";
}

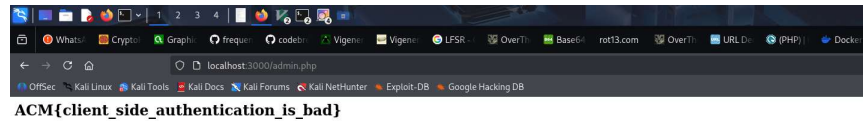
function login() {
  const user = document.getElementById("username").value;
  const pass = document.getElementById("password").value;

  if (!filter(user) || !filter(pass)) {
    document.getElementById("msg").innerText = "Illegal character in username or password.";
    return;
  }

  if (checkPassword(user, pass)) {
    document.getElementById("msg").innerText = "Login Successful!";
    document.getElementById("adminFormHash").value = "2196812e91c29df34f5e217cfd639881";
    document.getElementById("hiddenAdminForm").submit();
  } else {
    document.getElementById("msg").innerText = "Login Failed!";
  }
}
```

V) In that I found some data like “username === "admin" && password === "strongpassword";

vi) So I tried that credentials and found the following



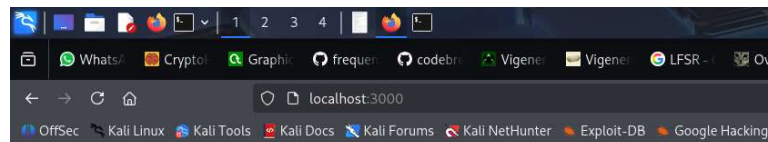
vii) The flag is “**ACM{client\_side\_authentication\_is\_bad}**”.

Tech explanation:

- i) This is a kind of static code analysis
- ii) This is a kind of static code analysis and authentication bypass with disclosure credentials.
- iii) Even this is some sort of credentials harvesting where we will find the credentials in .js scripts.

Task 4:

i) In this task we will find a login page like shown below



### Login

Username  Password

Use Coupon Code: 58

ii) To find the hidden files/directories in this we will use “dirb”





## Task 5:

- i) Upon opening this I found something like leave a comment box and tried to give some input to find any clue.

**Simple Login Bypass....{its simple!}**

### Leave a comment

Submit

OffSec Kali Linux Kali Tools Kali D

### Comments:

tasks are nice

[Go back](#)

- ii) I have tried to find the hidden files/directories.
- iii) I used “dirb” to find those files but found no details. That just ran a simple search and gave the following output.

```
File Actions Edit View Help
(mohith@kali)~$
$ dirb http://localhost:3000/

DIRB v2.22
By The Dark Raver

START_TIME: Mon Aug  4 16:33:50 2025
URL_BASE: http://localhost:3000/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt

GENERATED WORDS: 4612

Scanning URL: http://localhost:3000/

END_TIME: Mon Aug  4 16:33:59 2025
DOWNLOADED: 4612 - FOUND: 0

(mohith@kali)~$
```

- iv) Then I tried to inspect the page and analyzed the cookie data Which has the flag data encoded in URL form as following “FLAG%7Bstolen\_cookie\_flag%7D”

Cookie Storage		Cookie Data								
		Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite
⊖ Cookies	http://localhost:3000	flag	FLAG%7Bstolen_cookie_flag%7D	localhost	/	Session	32	false	false	None
⊕ Indexed DB		isAdmin	10	localhost	/	Session	9	false	false	None

- v) So, the decoded data is “FLAG {stolen\_cookie\_flag}”.

## Tech explanation:

- i) This is a cookie manipulation or cookie tampering or also some sort of cookie-based access control which hides the flag in cookie data.