

CS 561 CTF Semester Project

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1 Github Link

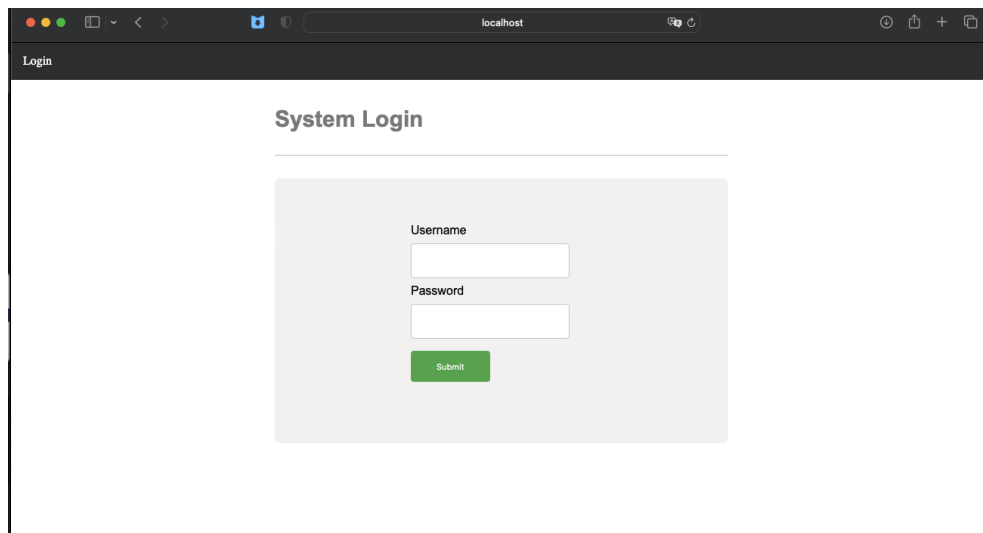
github.com/Silvennnn/cs561_Ming_CTF

2 Intro

This is a Web base CTF project which mainly test player's Web development skill. Basically, this is a login simulator where player need to find out the login method (username and password). While solving the problem, player need to use web page inspection tool to check those sections such as source code, network, or elements. These elements are the most important parts for a web page.

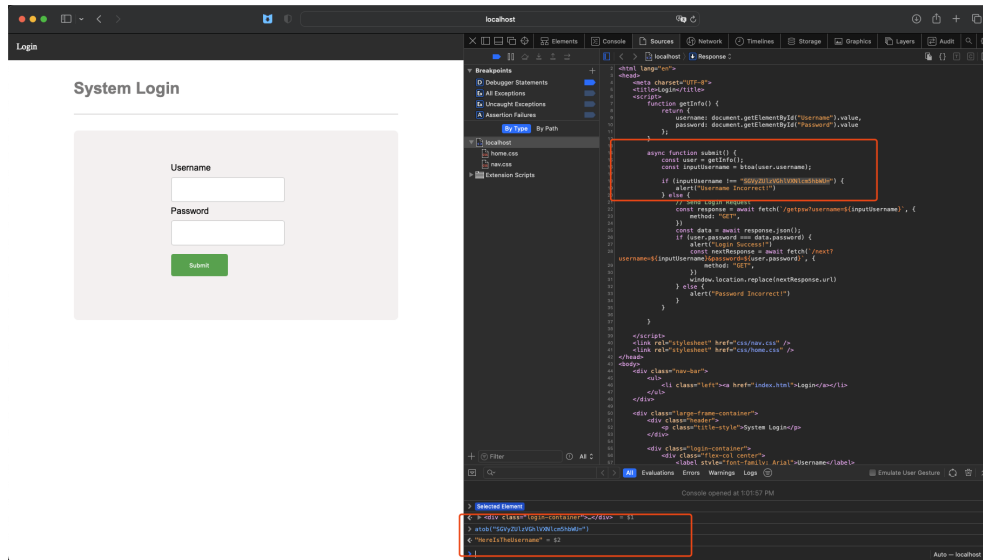
3 Solution

1. Run command to start the server: `node src/server.js`
2. Use browser to access port 8080: `localhost:8080`

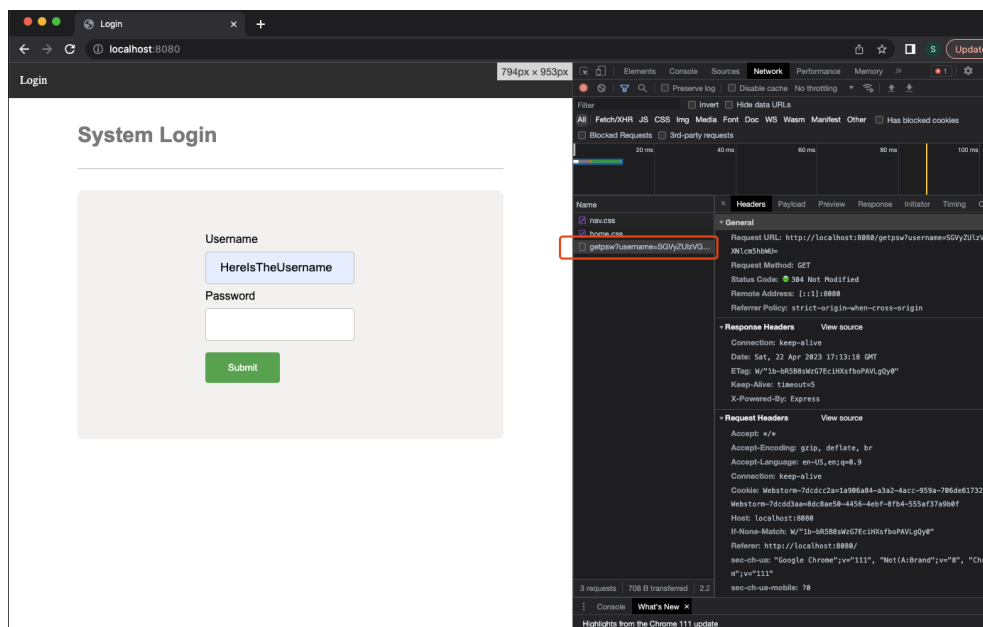


3. Use browser inspector to check source code. In the script, we will find out the logic behind comparing username and password.

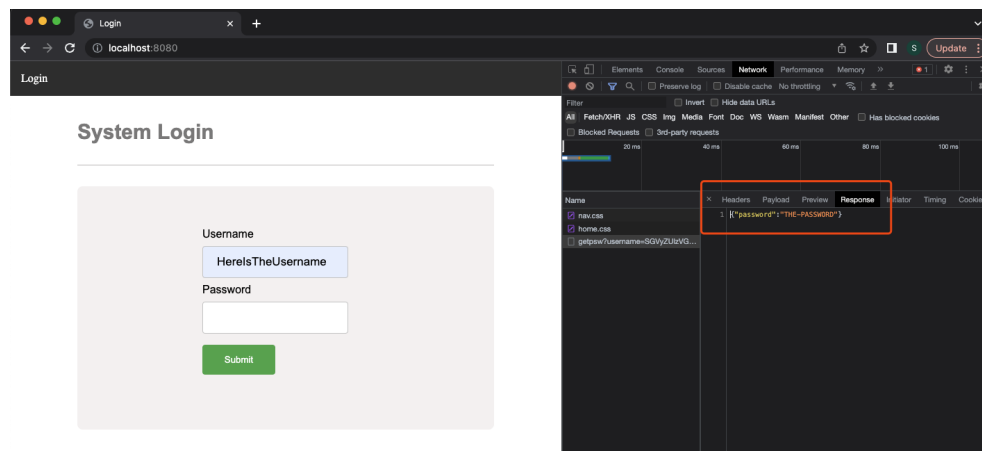
- For username, we have 'SGVyZULzVGhlVXNlcm5hbWU=' which was encoded by the btoa() function in line 16. The btoa() methods creates a Base64-encoded ASCII string from a binary string. Player could simply call atob() methods or orther ASCII decoder to decode the string and get the username 'HereIsTheUser-name'



- Once we have the correct username, we could move to next few lines. We notice there is a fetch method to GET the expected password and compare in the front-end. We need enter the correct username and click the submit button to send the GET request.



6. Since the password is compared in the front-end, we could access the response from server by entering Network section in the inspection.
7. In the response, we find the password "THE-PASSWORD".



8. After entering the correct username and password, we find the flag image. Simply download the image and use Steganographic Decoder to get the final flag.

