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SuperDuperMarket

EXECUTIVE SUMMARY

During a test the team found two vulnerabilities. The first vulnerability is in the robot.txt file. Which guides web crawlers on what they can or cannot index, that reveals certain paths on the website.

Among these paths, I found a JavaScript that used for admin authentication through MySQL database.

The second vulnerability involves the PDF on the website. I used Burp Suite to intercept the request that generates this PDF.

I discovered that the PDF contains an HTML SVG tag, which can be exploited for a server-side XSS attack. The XSS vulnerability allows an attacker to insert JavaScript code that can read files from the server.

By combining the two vulnerabilities, an attacker can obtain the admin token, and escalate their privileges on the server, gaining unauthorized access to sensitive areas on the website.

CONCLUSIONS

The assessment of the overall security system is low. Identified vulnerabilities during enumeration.

Server-side cross-site scripting XSS with dynamic PDF vulnerability

This is a critical threat involving exploiting a vulnerability in the way a web application generates PDFs. An attacker can use it to perform a server-side XSS attack, with a basic enumeration knowledge, or how to find vulnerabilities and how to implement a server-side XSS payload.

An attacker can extract information by doing obfuscation to the JavaScript code.

An attacker can inject the XSS payload and know the full path of the desired file.

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Vulnerabilities



■ High

VULN-001 Server-Side XSS Dynamic PDF - Sensitive Information Extracting (High)

Description

A web site become vulnerable to a type of attack call server side cross ssite scripting (XSS)when it create pdf file from data that users enter.

If a user or attacker input malicious javascript code and th website don't properly sanitize this input, this code could end up run by the server. malicious code have the same permission as the server, allowing theme to access and steal information attacker can use burp suit to intercept and modify the datasend to the server including the malicious code.

Details

The team identified security vulnerability in web application during a test.

PDF generation vulnerability using data provided by users. Using burp suite tool to examin the web requests.

Exploiting SVG Tag

Within the pdf generation request, the found an <svg> HTML tag, to add a barcode to the pdf. That tag is the point of the exploitation.

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XSS payload

the created a cross site scripting (xss) payload that is a malicious script, when executing this script on the server the can read all files that server as access to.

Reflecting sensitive data

Modifying the xss payload to display sensitive files at the `/etc/passwd` and `/etc/shadow`, that contain critical user data.

Targeting specific file for the admin token, used by the server. `/srv/node/admin-api.js`. ableing as to display the content of the file.

Extracting admin token

From this javascript file the obtain the MD5 hash of an admin token. Very sensitive information for administration.

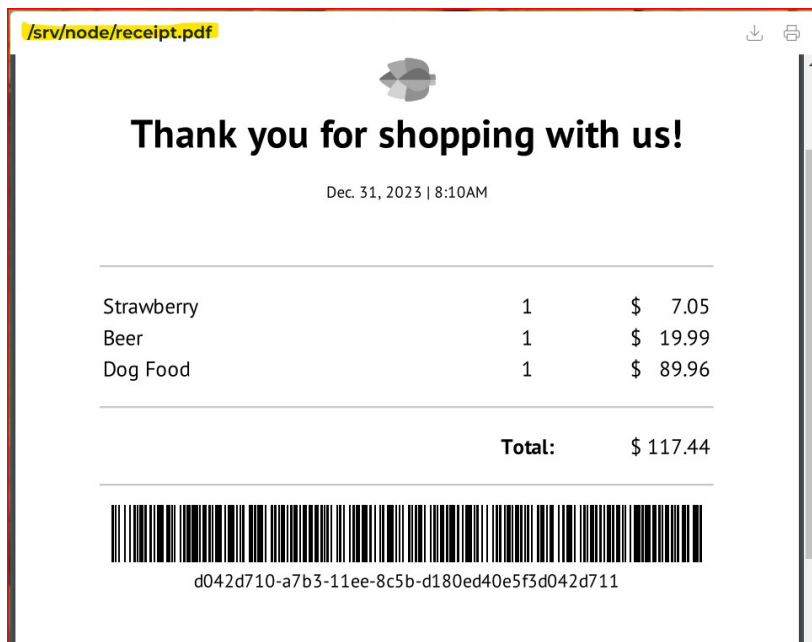
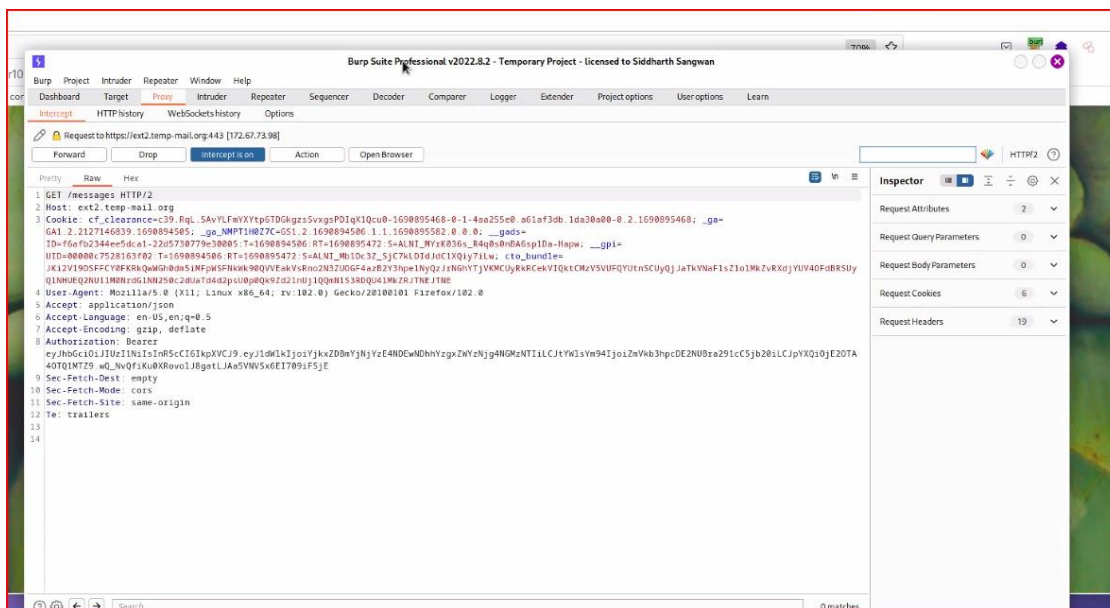


FIGURE 1: HTML tag of the PDF

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```
<div class="w-100 h-100 checkout-view active">
  <div class="row text-center w-100 h-100 p-0 m-0 justify-content-center align-items-center"> flex
    <div id="pdf" class="w-100 h-100 m-0 p-0 d-flex flex-column"> flex
      <div class="controls d-flex justify-content-between py-2 px-3 align-items-center"> flex
        <b>srv/node/receipt.pdf</b>
      </div>
    </div>
    <iframe title="pdf-iframe" id="pdf-iframe" name="pdf-iframe" class="w-100 h-100 m-0 p-0" src="blob:https://host-g86j3pw8-prod.prod.cywar.xyz:49819/53901bf4-cfa0-4e05-a50c-2e6dfd32f3da#toolbar=0&navpanes=0&scrollbar=0">
  </div>
```

FIGURE 2: show the path of the website directory



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FIGURE 3 insertion of a script into the request using Burp Suite, reveal the content of the /etc/passwd file.

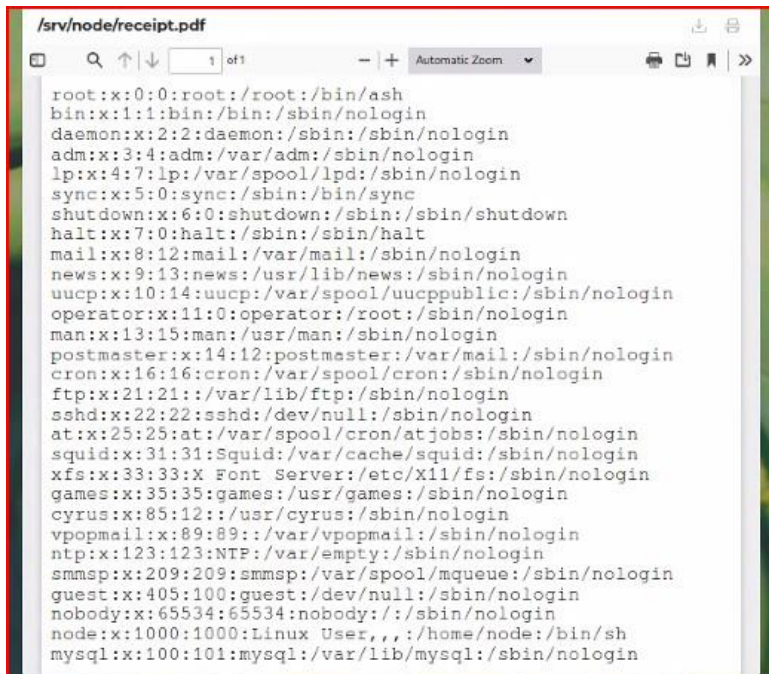


FIGURE 4: reflective output of /etc/passwd file

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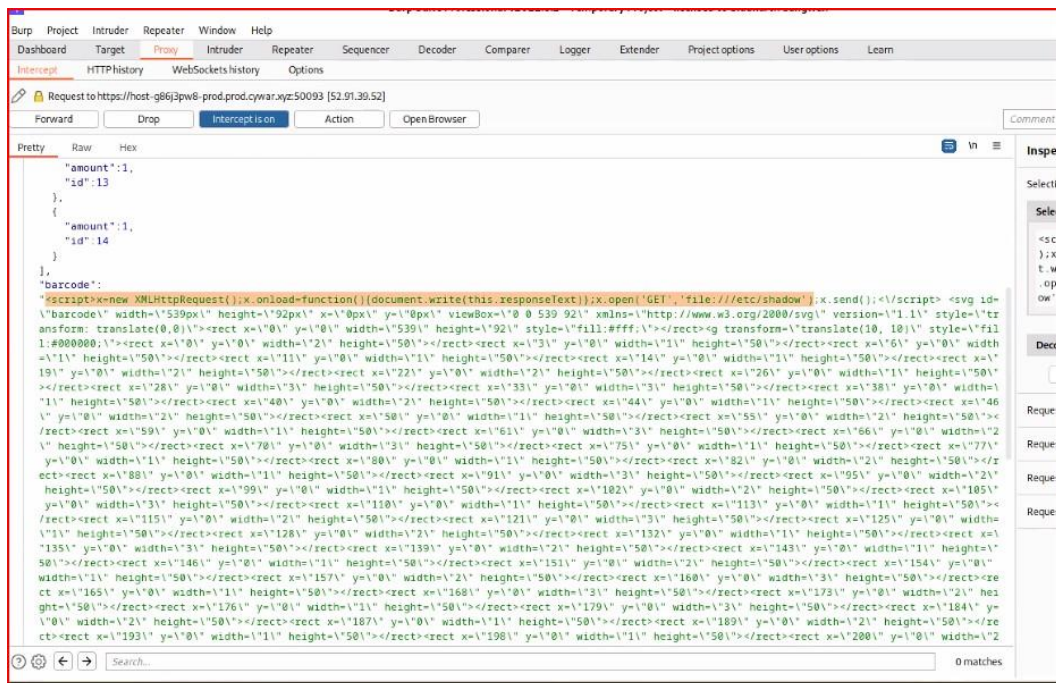


FIGURE 5: injecting new javascript to extract the /etc/shadow file

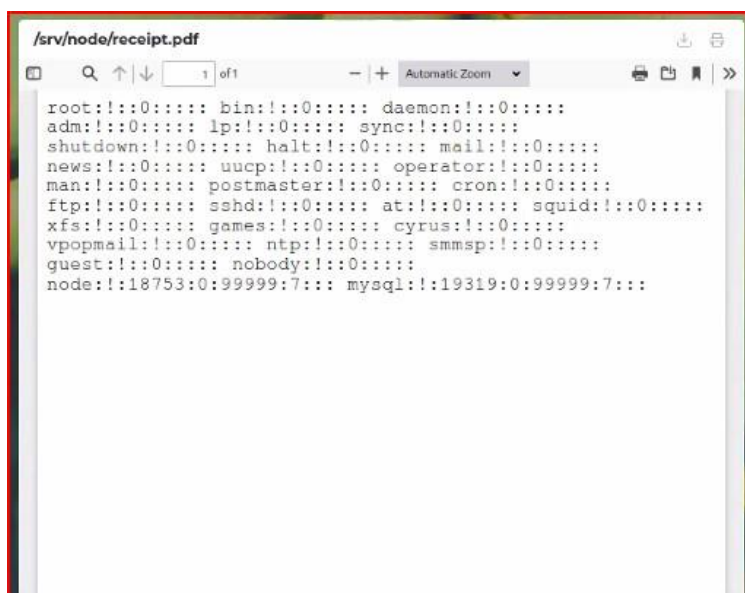


FIGURE 6: reflective the /etc/shadow file

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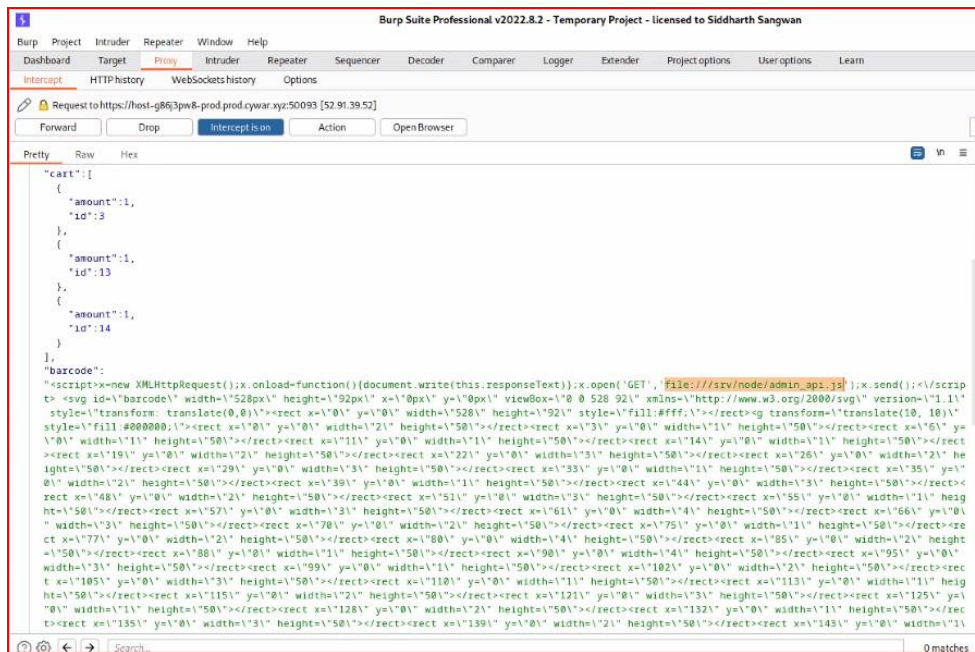


FIGURE 7: extract the information from obfuscating javascript code

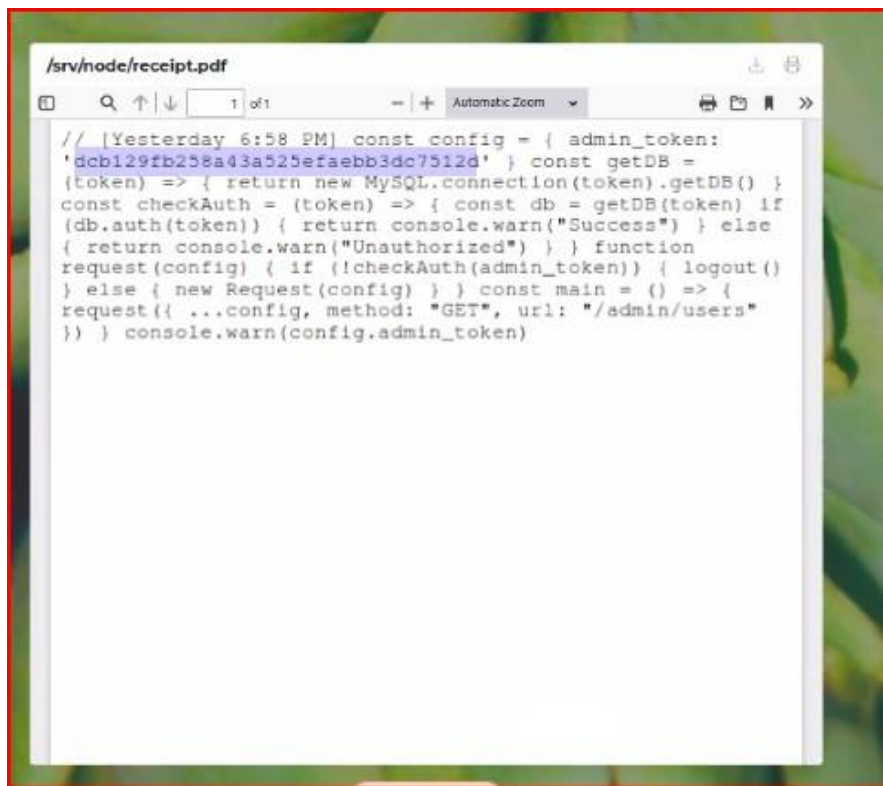


FIGURE 8: reflective xss MD5 of the admin token

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Remediation

1. Regular security checks for vulnerabilities.
2. Data validation, before creating pdf's check and clean(sanitize) user data to remove potencial scripts.
3. Limit the pdf creation feature to authorized users only
4. Use HTTPS to secure data transmission and encrypt traffic between users and browser, Protecting sensitive information.

GOOD LUCK!