Penetration Testing Report

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Program: HCPT
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Introduction

This report document hereby describes the proceedings and results of a Black Box security assessment conducted against the **Week {3} Labs**. The report hereby lists the findings and corresponding best practice mitigation actions and recommendations.

1. Objective

The objective of the assessment was to uncover vulnerabilities in the **Week {3} Labs** and provide a final security assessment report comprising vulnerabilities, remediation strategy and recommendation guidelines to help mitigate the identified vulnerabilities and risks during the activity.

2. Scope

This section defines the scope and boundaries of the project.

Application Name	**Lab 1 Name – Cross-Site Request Forgery , Lab 2 Name – Cross Origin Resource Sharing**

3. Summary

Outlined is a Black Box Application Security assessment for the **Week {3} Labs**.

Total number of Sub-labs: 13

High	Medium	Low
5	3	5

High - **5**

Medium - **3**

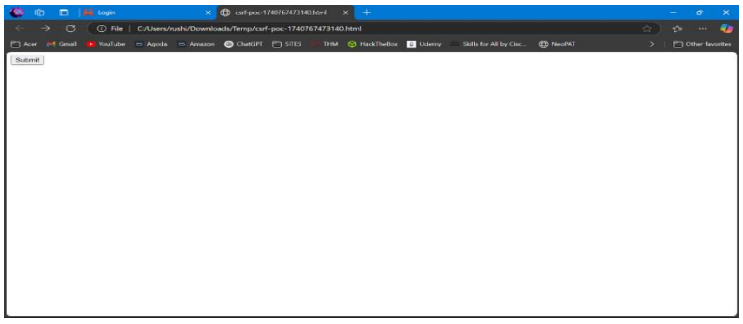
Low - 5

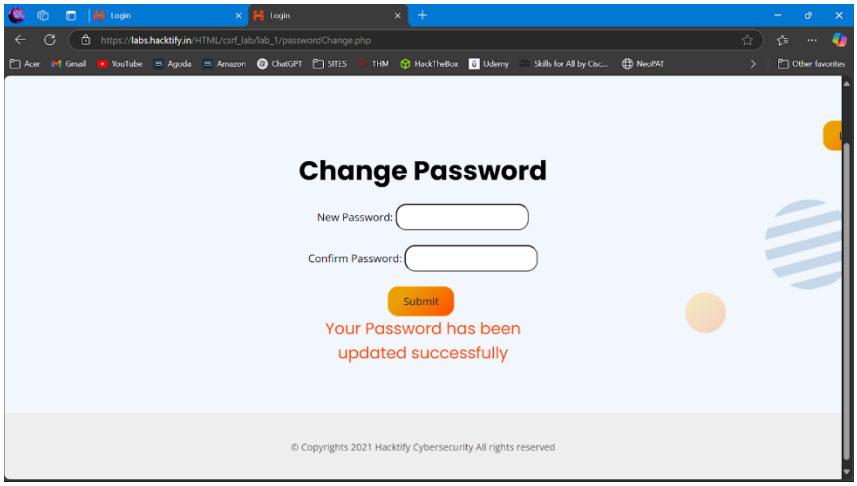
1. Cross – Site Request Forgery

1.1. Eassyy CSRF

Reference	Risk Rating
Eassyy CSRF	**Low**
Tools Used	
Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery (CSRF) is a vulnerability that allows an attacker to trick a logged-in user into unknowingly executing **unauthorized actions** on a web application. This occurs when the application **fails to verify the origin of requests**, allowing an attacker to embed malicious requests in a **link, form, or script** that executes with the victim's **session credentials**. If exploited, CSRF can lead to **account takeover, data modification, fund transfers, or privilege escalation** without the victim's consent. Proper **CSRF protection tokens** and **same-site cookie policies** are essential to prevent this attack.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_1/index.php	
Consequences of not Fixing the Issue	
If a **CSRF vulnerability** is not fixed, attackers can force users to perform unintended actions like **changing account details, transferring funds, or deleting data** without their consent. This can lead to **account hijacking, financial fraud, and data loss**, causing **reputational damage and regulatory non-compliance**. In critical cases, attackers may **gain full control over user accounts or administrative functions**, leading to **mass exploitation and security breaches**.	
Suggested Countermeasures	
To prevent **CSRF attacks**, implement **CSRF tokens** in all state-changing requests to verify legitimate user actions. Use **SameSite cookies** to restrict cookie transmission across sites and enforce **user re-authentication** for sensitive actions. Implement **CORS policies** to limit cross-origin requests and use **HTTP headers like Referer and Origin** to validate request sources. Additionally, educate users to avoid clicking on untrusted links while logged in and conduct **regular security audits** to detect vulnerabilities.	
References	
https://owasp.org/www-community/attacks/csrf	

Proof of Concept

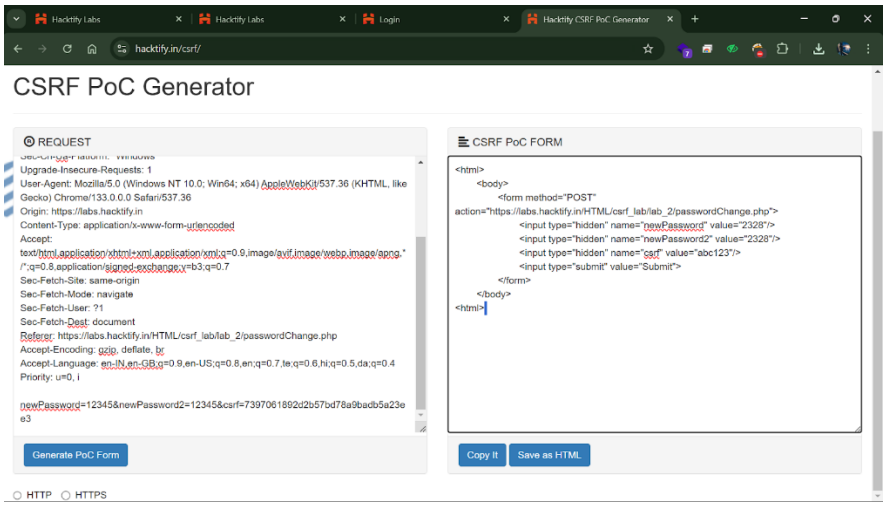


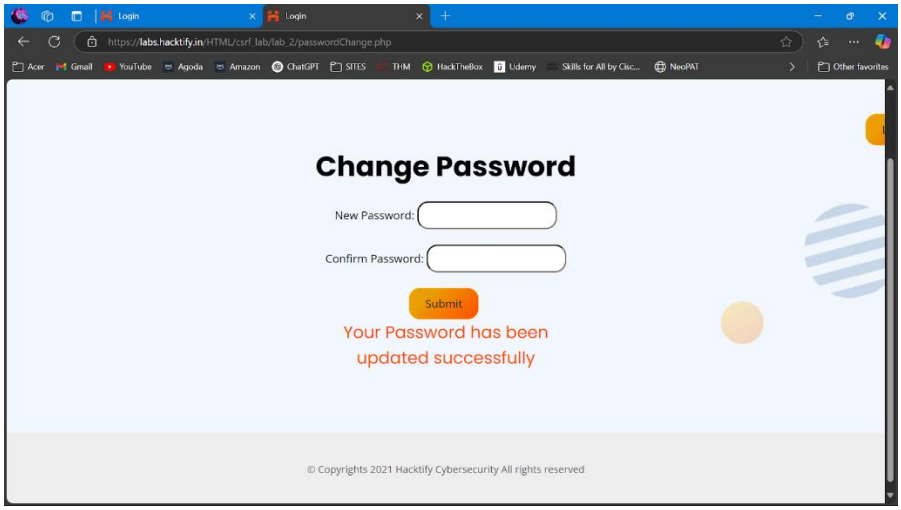


1.2. Always Validate Tokens!

Reference	Risk Rating
Always Validate Tokens	**Medium**
Tools Used	
Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery (CSRF) occurs when an attacker tricks a logged-in user into unknowingly making a **malicious request** that changes a security token, such as an **API key, authentication token, or session token**, without their consent. This happens due to the application **failing to validate request origins** and relying solely on **session-based authentication**. If exploited, an attacker can **change security tokens** linked to the victim's account, leading to **unauthorized access, privilege escalation, or account takeover**. Implementing **CSRF tokens, SameSite cookie attributes, and user re-authentication** can prevent such attacks.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_2/login.php	
Consequences of not Fixing the Issue	
If a **CSRF vulnerability** is not fixed, attackers can force users to perform unintended actions like **changing account details, transferring funds, or deleting data** without their consent. This can lead to **account hijacking, financial fraud, and data loss**, causing **reputational damage and regulatory non-compliance**. In critical cases, attackers may **gain full control over user accounts or administrative functions**, leading to **mass exploitation and security breaches**.	
Suggested Countermeasures	
To prevent **CSRF attacks**, implement **CSRF tokens** in all state-changing requests to verify legitimate user actions. Use **SameSite cookies** to restrict cookie transmission across sites and enforce **user re-authentication** for sensitive actions. Implement **CORS policies** to limit cross-origin requests and use **HTTP headers like Referer and Origin** to validate request sources. Additionally, educate users to avoid clicking on untrusted links while logged in and conduct **regular security audits** to detect vulnerabilities.	
References	
https://owasp.org/www-community/attacks/csrf	

Proof of Concept

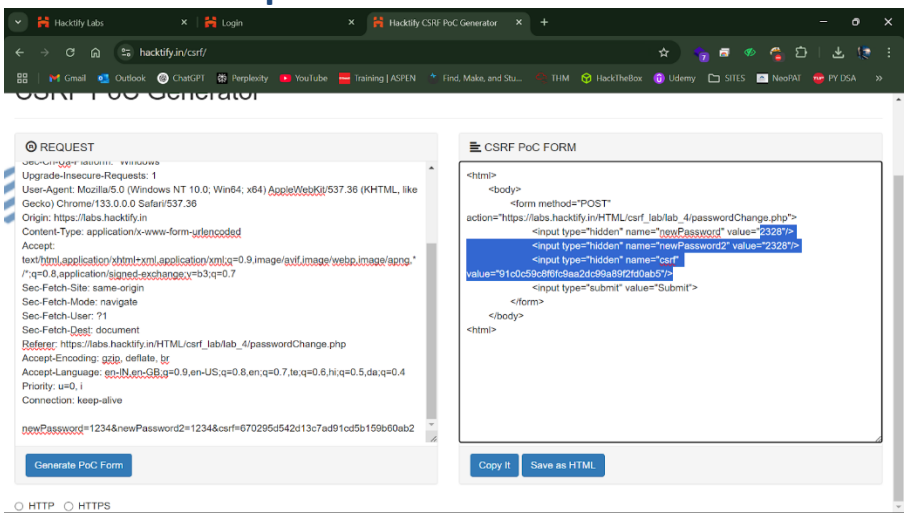


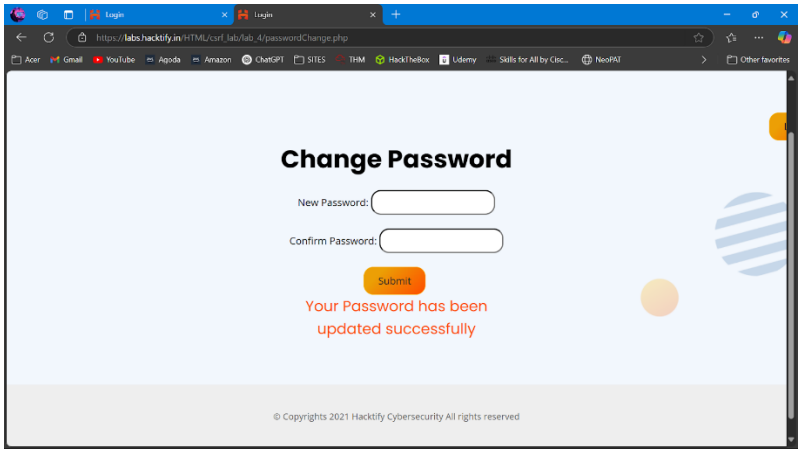


1.3. I hate when someone uses my Tokens!

Reference	Risk Rating
I hate when someone uses my Tokens!	**Low**
Tools Used	
Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery (CSRF) occurs when an attacker tricks a logged-in user into unknowingly making a **malicious request** that changes a security token, such as an **API key, authentication token, or session token**, without their consent. This happens due to the application **failing to validate request origins** and relying solely on **session-based authentication**. If exploited, an attacker can **change security tokens** linked to the victim's account, leading to **unauthorized access, privilege escalation, or account takeover**. Implementing **CSRF tokens, SameSite cookie attributes, and user re-authentication** can prevent such attacks.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_4/login.php	
Consequences of not Fixing the Issue	
If a **CSRF vulnerability** is not fixed, attackers can force users to perform unintended actions like **changing account details, transferring funds, or deleting data** without their consent. This can lead to **account hijacking, financial fraud, and data loss**, causing **reputational damage and regulatory non-compliance**. In critical cases, attackers may **gain full control over user accounts or administrative functions**, leading to **mass exploitation and security breaches**.	
Suggested Countermeasures	
To prevent **CSRF attacks**, implement **CSRF tokens** in all state-changing requests to verify legitimate user actions. Use **SameSite cookies** to restrict cookie transmission across sites and enforce **user re-authentication** for sensitive actions. Implement **CORS policies** to limit cross-origin requests and use **HTTP headers like Referer and Origin** to validate request sources. Additionally, educate users to avoid clicking on untrusted links while logged in and conduct **regular security audits** to detect vulnerabilities.	
References	
https://owasp.org/www-community/attacks/csrf	

Proof of Concept

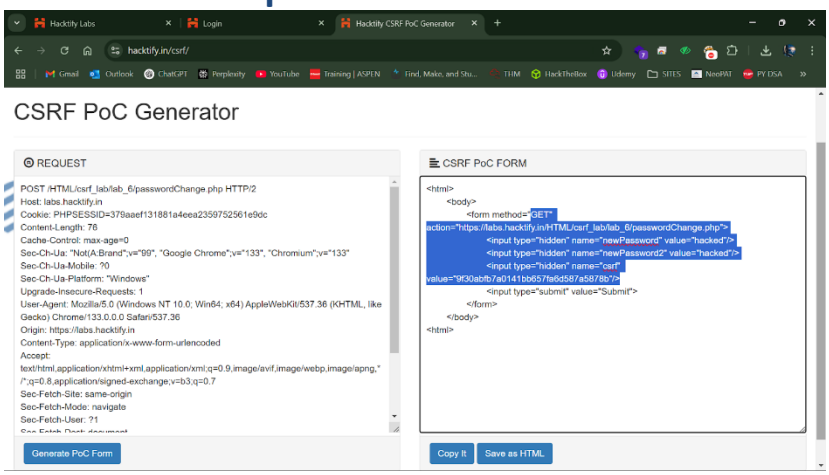


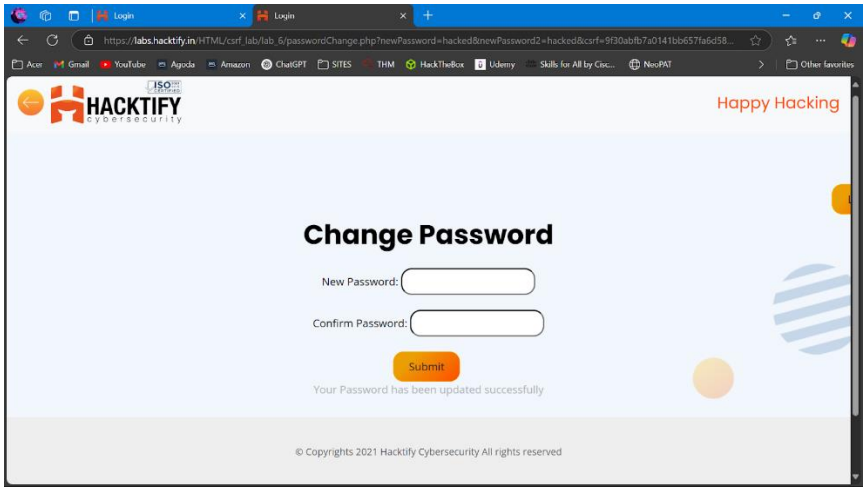


1.4. GET Me or POST ME!

Reference	Risk Rating
GET Me or POST ME!	**Low**
Tools Used	
Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery (CSRF) exploits the lack of proper request validation, allowing an attacker to force a victim's browser to perform unauthorized actions. If a web application accepts sensitive actions via both GET and POST requests, an attacker can convert a POST request to GET and embed it in an external link or image, causing unintended changes when the victim visits a malicious page. This can lead to account modifications, privilege escalation, or data exposure. Implementing strict request methods, CSRF tokens, and SameSite cookie policies can prevent such attacks.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_6/login.php	
Consequences of not Fixing the Issue	
If this **CSRF vulnerability** (changing POST to GET) is not fixed, attackers can exploit it to perform **unauthorized actions** on behalf of authenticated users without their knowledge. This can lead to **account takeovers, unauthorized data modifications, financial fraud, or privilege escalations**. Since **GET requests can be triggered automatically** (e.g., by loading an image or clicking a malicious link), attackers can easily exploit users just by making them visit a compromised webpage. Failure to enforce **proper request validation** can result in **data breaches, reputational damage, and compliance violations** for the affected organization.	
Suggested Countermeasures	
To prevent this **CSRF vulnerability (changing POST to GET)**, enforce **strict request methods** by ensuring sensitive actions **only accept POST requests**. Implement **CSRF tokens** for all state-changing operations and validate them on the server side. Use **SameSite cookie attributes (Lax or Strict)** to prevent cross-origin requests from automatically sending session cookies. Additionally, require **re-authentication or multi-factor authentication (MFA)** for critical actions like password or email changes. Regular **security audits and penetration testing** can help identify and mitigate such vulnerabilities before they are exploited.	
References	
https://owasp.org/www-community/attacks/csrf	

Proof of Concept

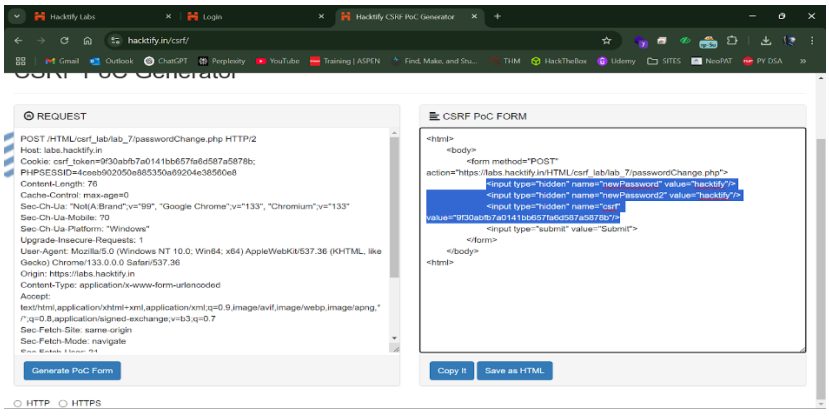


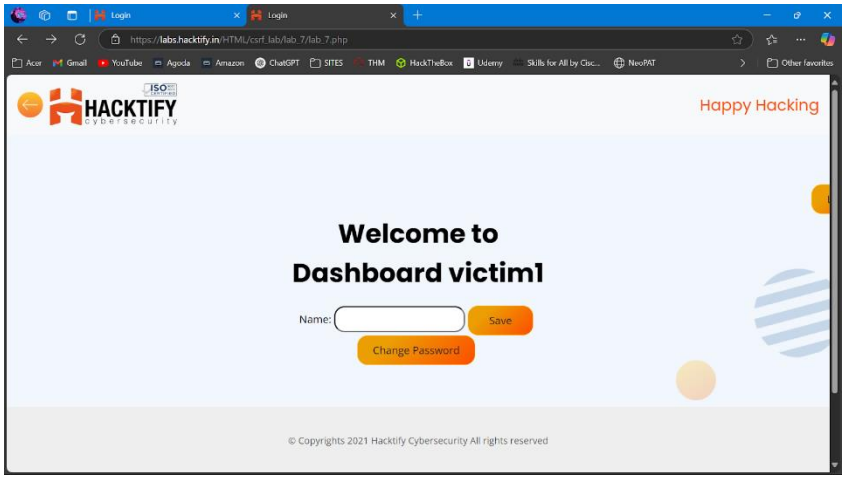


1.5. XSS the Saviour!

Reference	Risk Rating
XSS the Saviour!	**High**
Tools Used	
Burpsuite , Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated. With a little help of social engineering an attacker may trick the users of a web application into executing actions of the attacker's choosing. Cross-Site Request Forgery is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated. With a little help of social engineering an attacker may trick the users of a web application into executing actions of the attacker's choosing.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_7/login.php	
Consequences of not Fixing the Issue	
If a **CSRF vulnerability** is not fixed, attackers can force users to perform unintended actions like **changing account details, transferring funds, or deleting data** without their consent. This can lead to **account hijacking, financial fraud, and data loss**, causing **reputational damage and regulatory non-compliance**. In critical cases, attackers may **gain full control over user accounts or administrative functions**, leading to **mass exploitation and security breaches**.	
Suggested Countermeasures	
To prevent **CSRF attacks**, implement **CSRF tokens** in all state-changing requests to verify legitimate user actions. Use **SameSite cookies** to restrict cookie transmission across sites and enforce **user re-authentication** for sensitive actions. Implement **CORS policies** to limit cross-origin requests and use **HTTP headers like Referer and Origin** to validate request sources. Additionally, educate users to avoid clicking on untrusted links while logged in and conduct **regular security audits** to detect vulnerabilities.Additionally, require **re-authentication or multi-factor authentication (MFA)** for critical actions like password or email changes. Regular **security audits and penetration testing** can help identify and mitigate such vulnerabilities before they are exploited.	
References	
https://portswigger.net/web-security/csrf	

Proof of Concept

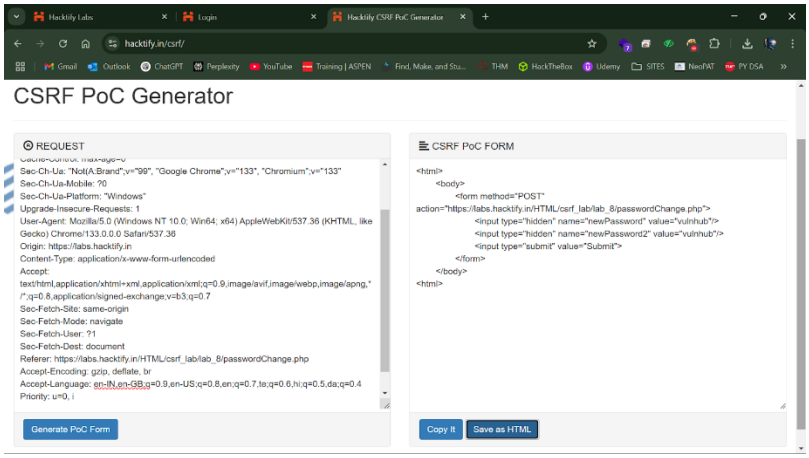


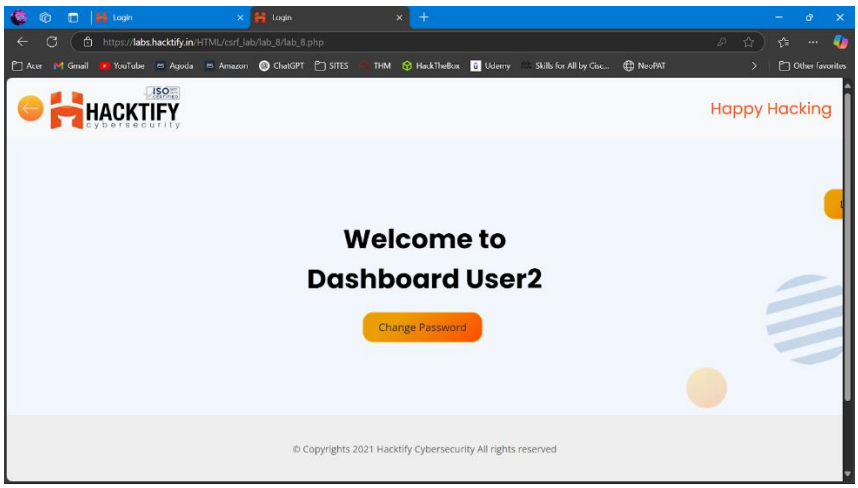


1.6. rm -rf token

Reference	Risk Rating
rm -rf token	**High**
Tools Used	
Burpsuite , Hacktify CSRF Poc Generator	
Vulnerability Description	
Cross-Site Request Forgery is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated. With a little help of social engineering an attacker may trick the users of a web application into executing actions of the attacker's choosing. Cross-Site Request Forgery is an attack that forces an end user to execute unwanted actions on a web application in which they're currently authenticated. With a little help of social engineering an attacker may trick the users of a web application into executing actions of the attacker's choosing.	
How It Was Discovered	
Automated Tools – By CSRF Poc Generator	
Vulnerable URLs	
https://labs.hacktify.in/HTML/csrf_lab/lab_8/login.php	
Consequences of not Fixing the Issue	
If a **CSRF vulnerability** is not fixed, attackers can force users to perform unintended actions like **changing account details, transferring funds, or deleting data** without their consent. This can lead to **account hijacking, financial fraud, and data loss**, causing **reputational damage and regulatory non-compliance**. In critical cases, attackers may **gain full control over user accounts or administrative functions**, leading to **mass exploitation and security breaches**.	
Suggested Countermeasures	
To prevent **CSRF attacks**, implement **CSRF tokens** in all state-changing requests to verify legitimate user actions. Use **SameSite cookies** to restrict cookie transmission across sites and enforce **user re-authentication** for sensitive actions. Implement **CORS policies** to limit cross-origin requests and use **HTTP headers like Referer and Origin** to validate request sources. Additionally, educate users to avoid clicking on untrusted links while logged in and conduct **regular security audits** to detect vulnerabilities.Additionally, require **re-authentication or multi-factor authentication (MFA)** for critical actions like password or email changes. Regular **security audits and penetration testing** can help identify and mitigate such vulnerabilities before they are exploited.	
References	
https://www.invicti.com/learn/cross-site-request-forgery-csrf/	

Proof of Concept



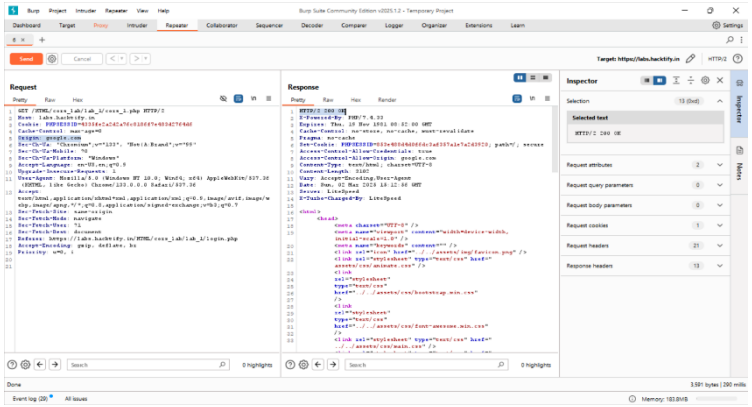


2. Cross-Origin Resource Sharing

2.1. CORS with arbitrary Origin

Reference	Risk Rating
CORS with arbitrary Origin	**Low**
Tools Used	
Burpsuite	
Vulnerability Description	
A **Cross-Origin Resource Sharing (CORS) vulnerability** occurs when a web application improperly configures its CORS policy, allowing **unauthorized origins** to access sensitive resources. If an application allows requests from **any origin (Access-Control-Allow-Origin: *) or whitelists untrusted domains**, attackers can exploit this to steal **user data, hijack sessions, or perform API abuse** via malicious websites. This is especially dangerous if **authentication credentials (cookies, tokens) are exposed to untrusted origins**, leading to **data breaches and unauthorized actions**. Properly **restricting allowed origins and methods** is crucial for preventing CORS-based attacks.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_1/login.php	
Consequences of not Fixing the Issue	
If a **CORS vulnerability** is not fixed, attackers can exploit it to perform **unauthorized cross-origin requests**, leading to **data theft, session hijacking, and API abuse**. Malicious websites can trick a victim's browser into making requests to a vulnerable application, potentially exposing **sensitive user data, authentication tokens, or financial information**. If **credentials are included in CORS requests**, attackers could **bypass authentication mechanisms** and gain unauthorized access. This can result in **data breaches, compliance violations (e.g., GDPR), and reputational damage** for the affected organization.	
Suggested Countermeasures	
To prevent **CORS vulnerabilities**, configure the **CORS policy securely** by restricting Access-Control-Allow-Origin to **trusted domains** instead of using *. Avoid allowing **credentials (Access-Control-Allow-Credentials: true)** unless absolutely necessary, and never expose sensitive endpoints to untrusted origins. Implement **proper authentication and authorization checks** on the server-side rather than relying on CORS for security. Regularly audit CORS configurations and use **security headers** like Content-Security-Policy (CSP) to reduce the risk of cross-origin attacks.	
References	
https://portswigger.net/web-security/cors	

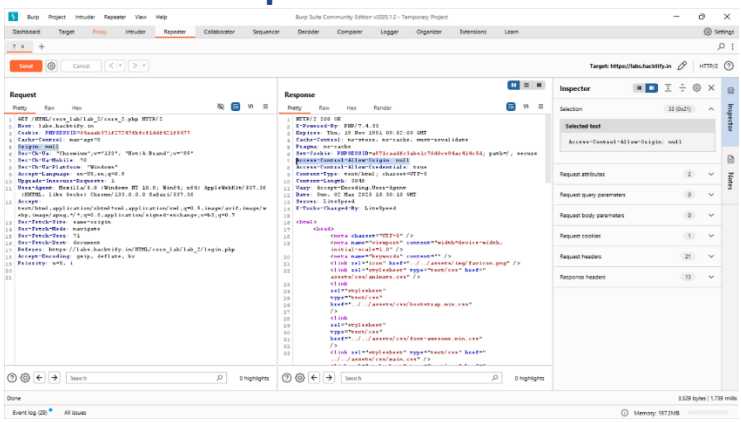
Proof of Concept



2.2. CORS with Null Origin

Reference	Risk Rating
CORS with Null Origin	**Low**
Tools Used	
Burpsuite	
Vulnerability Description	
A **null origin CORS vulnerability** occurs when a web application allows requests from the **null origin** (Access-Control-Allow-Origin: null), which is often misused in **sandboxed iframes, file:// URLs, and certain cross-origin requests**. Attackers can exploit this by embedding the vulnerable site in a **malicious iframe** or using a **local HTML file** to bypass origin restrictions, leading to **data theft, unauthorized API access, or session hijacking**. To mitigate this, developers should **restrict allowed origins to trusted domains** and avoid using null unless absolutely necessary in controlled environments.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_2/login.php	
Consequences of not Fixing the Issue	
If a **null origin CORS vulnerability** is not fixed, attackers can exploit it to **bypass origin restrictions** and gain **unauthorized access to sensitive data or APIs**. Malicious websites or **local HTML files** can send requests on behalf of users, potentially leading to **data theft, session hijacking, or API abuse**. This is especially dangerous for applications handling **personal, financial, or authentication-related data**, as it can result in **data breaches, account compromises, and regulatory non-compliance**, ultimately damaging the organization's reputation and security.	
Suggested Countermeasures	
To prevent **null origin CORS vulnerabilities**, avoid using Access-Control-Allow-Origin: null unless absolutely necessary in controlled environments. Instead, explicitly define **trusted origins** and restrict cross-origin access to only those domains. Implement **strict authentication and authorization checks** on the server-side rather than relying on CORS for security. Additionally, disable null origin access for sensitive endpoints, enforce **SameSite cookies**, and use **Content Security Policy (CSP)** to restrict resource loading from untrusted sources. Regular security audits can help identify and mitigate such misconfigurations.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

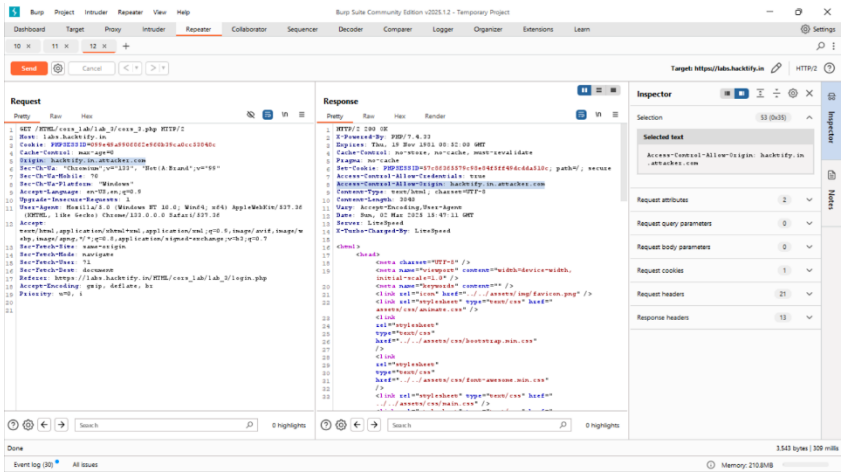
Proof of Concept

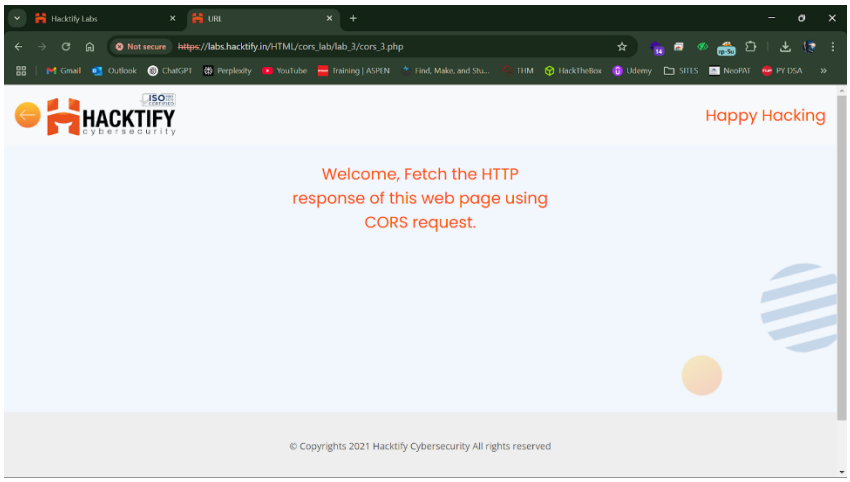


2.3. CORS with prefix match

Reference	Risk Rating
CORS with prefix match	**Medium**
Tools Used	
Burpsuite	
Vulnerability Description	
A **prefix match CORS vulnerability** occurs when a server improperly validates the Origin header by using **partial string matching** instead of an exact match. For example, if a server allows requests from "https://trusted.com" but incorrectly matches any domain starting with "https://trusted.com", an attacker can exploit this by hosting a malicious site at "https://trusted.com.attacker.com". This can lead to **unauthorized cross-origin access, data theft, and API abuse**, allowing attackers to steal **user credentials, tokens, or sensitive data** through manipulated requests.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_3/login.php	
Consequences of not Fixing the Issue	
If a **prefix match CORS vulnerability** is not fixed, attackers can exploit it by hosting malicious sites with similar domain prefixes (e.g., https://trusted.com.attacker.com) to **bypass origin restrictions**. This can lead to **unauthorized API access, data leaks, session hijacking, and account takeovers**, as users' sensitive information may be exposed to **untrusted origins**. Such vulnerabilities can be particularly dangerous for applications handling **financial, authentication, or personal data**, potentially resulting in **data breaches, compliance violations, and reputational damage**.	
Suggested Countermeasures	
To prevent **prefix match CORS vulnerabilities**, always use **exact string matching** when validating the Origin header instead of partial or substring-based checks. Define a strict **allowlist of trusted origins** and avoid using wildcard (*) or dynamically reflecting origins without proper validation. Additionally, ensure **sensitive endpoints do not expose credentials** via CORS (Access-Control-Allow-Credentials: true) unless absolutely necessary. Regular security audits and testing can help detect and mitigate misconfigurations before they are exploited.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

Proof of Concept

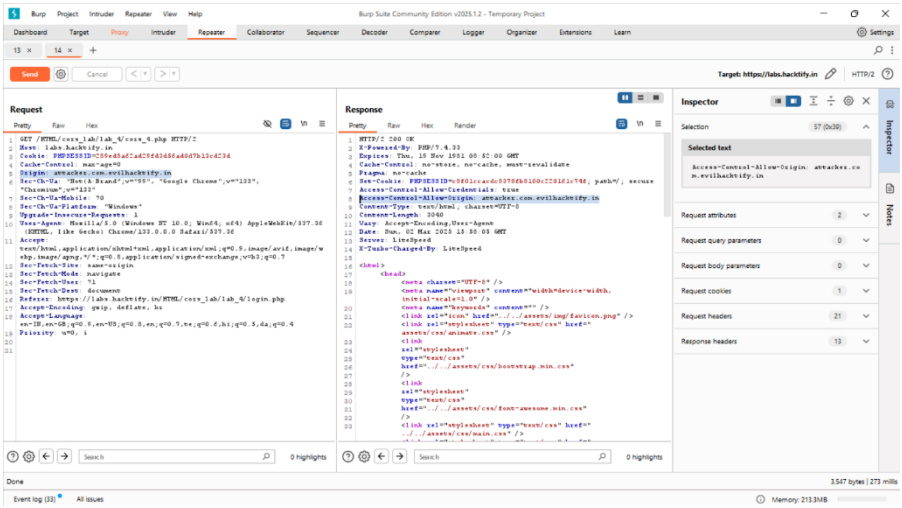


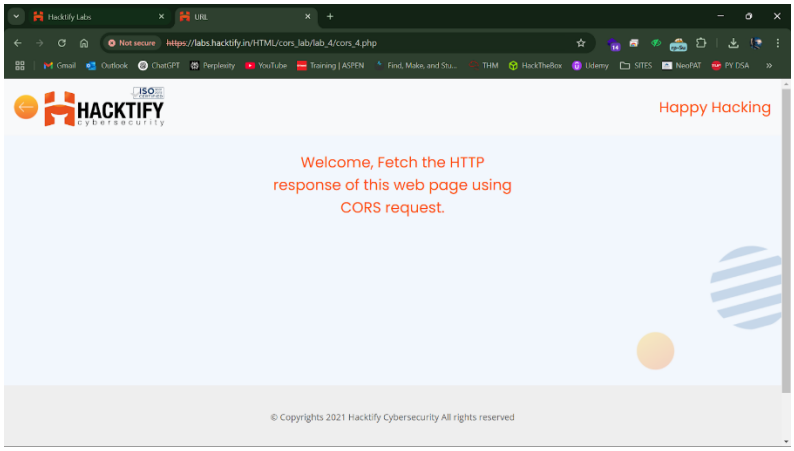


2.4. CORS with suffix match

Reference	Risk Rating
CORS with suffix match	**Medium**
Tools Used	
Burpsuite	
Vulnerability Description	
A **suffix match CORS vulnerability** occurs when a server incorrectly validates the Origin header by allowing any domain that **ends** with a trusted string (e.g., allowing example.com but also mistakenly permitting attackerexample.com). Attackers can exploit this by hosting malicious domains that **trick the server into granting cross-origin access**, leading to **data theft, unauthorized API requests, and session hijacking**.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_4/login.php	
Consequences of not Fixing the Issue	
If a **suffix match CORS vulnerability** is not fixed, attackers can create deceptive domains (e.g., malicious-example.com) to **bypass security restrictions** and gain **unauthorized access to sensitive data or APIs**. This can lead to **user impersonation, data leaks, and financial fraud**, especially in applications dealing with **personal, authentication, or financial information**, ultimately causing **data breaches, compliance violations, and reputational damage**.	
Suggested Countermeasures	
To prevent **suffix match CORS vulnerabilities**, always perform **exact string matching** for trusted origins instead of relying on **partial or wildcard matching**. Use a **whitelist of fully qualified, explicitly trusted domains**, and never allow dynamic or user-controlled origins unless validated. Additionally, implement **strict authentication and authorization checks** on the server-side, enforce **SameSite cookies**, and use **security headers** like Content-Security-Policy (CSP) to mitigate risks. Regular audits should be conducted to ensure proper CORS configurations.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

Proof of Concept

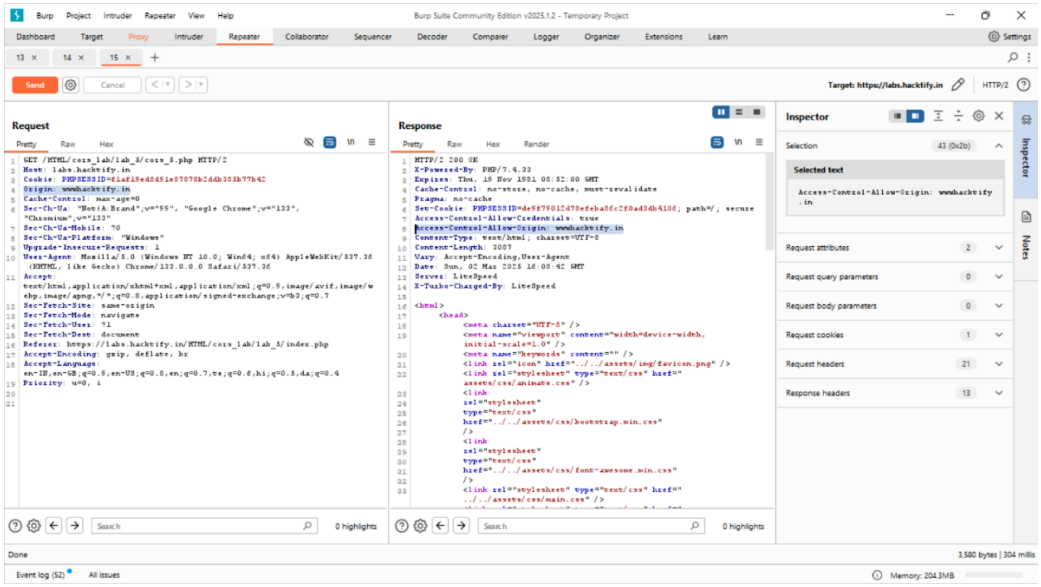


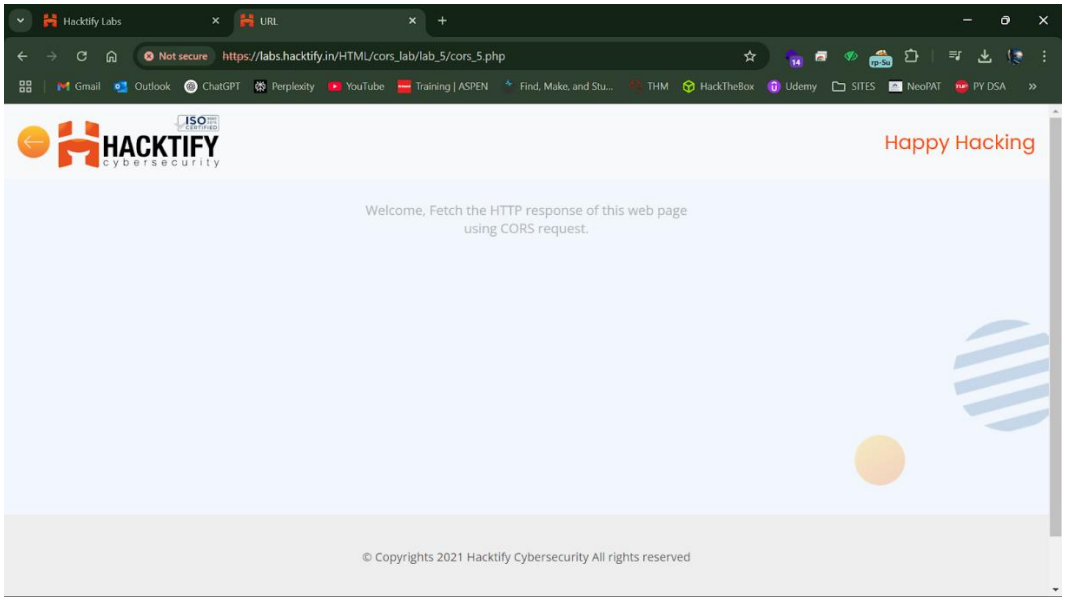


2.5. CORS with Escape dot

Reference	Risk Rating
CORS with Escape dot	**High**
Tools Used	
Burpsuite	
Vulnerability Description	
A **CORS with escape dot vulnerability** occurs when a server misinterprets domain validation due to improper handling of escaped characters (e.g., \. instead of .). Attackers can exploit this by crafting malicious subdomains (trusted\.malicious.com instead of trusted.malicious.com) that bypass CORS restrictions. This can lead to **unauthorized API access, data exfiltration, and session hijacking**, compromising sensitive user information.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_5/login.php	
Consequences of not Fixing the Issue	
If not fixed, attackers can exploit **CORS misconfigurations** to **steal user data, hijack sessions, and perform unauthorized actions** on behalf of users. This can affect **authentication mechanisms, financial transactions, and private communications**, leading to **data breaches, compliance failures, and reputational damage**.	
Suggested Countermeasures	
To mitigate **CORS with escape dot vulnerabilities**, always use **exact string matching** for trusted origins and avoid **regex-based or partial matching**. Implement **strict CORS policies**, validate and sanitize input properly, and enforce **server-side authentication and authorization** rather than relying on CORS alone. Regular security audits should be conducted to detect and fix misconfigurations.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

Proof of Concept

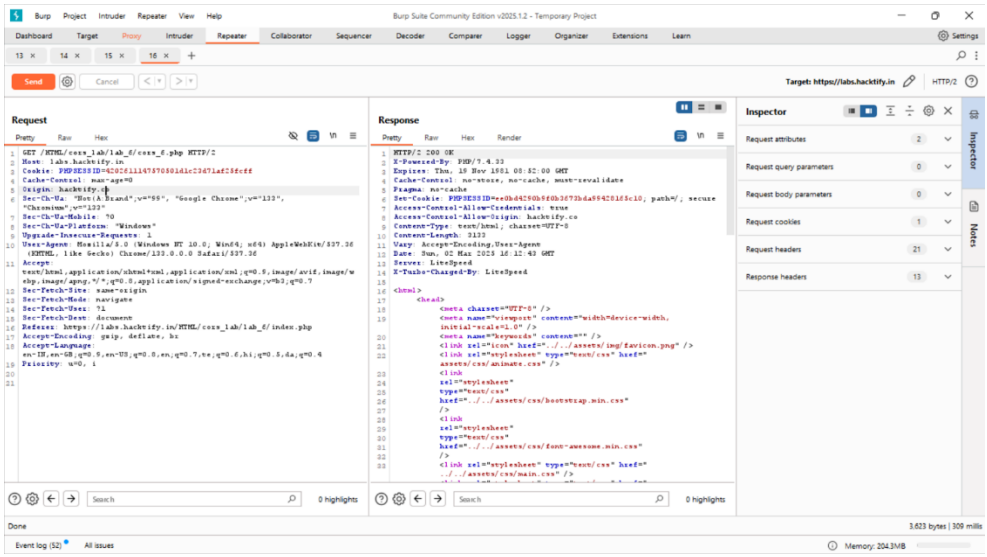


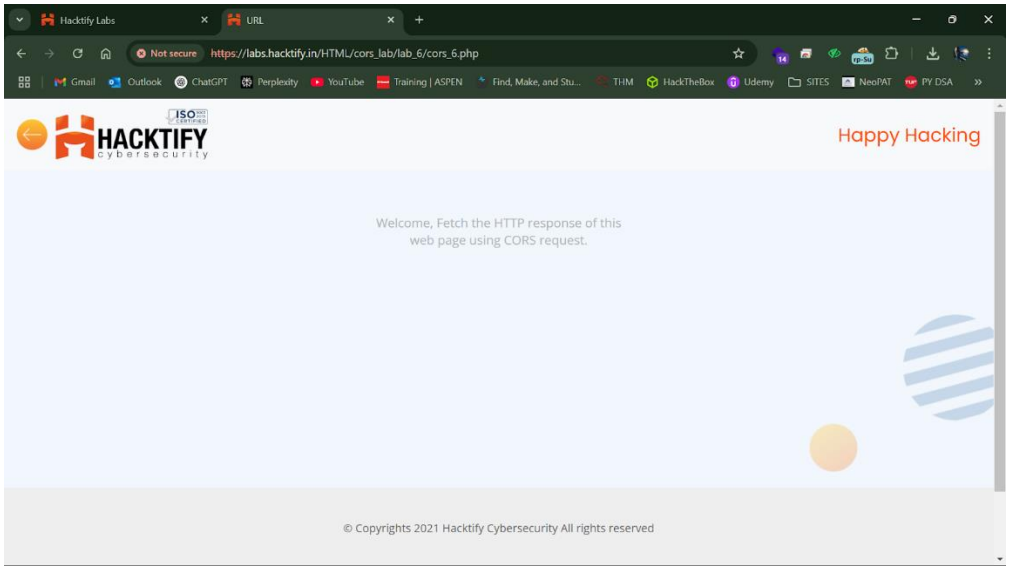


2.6. CORS with Substring match

Reference	Risk Rating
CORS with Substring match	**High**
Tools Used	
Burpsuite	
Vulnerability Description	
A **CORS with substring match vulnerability** occurs when a server improperly validates the Origin header by allowing any domain that **contains** a trusted string (e.g., permitting trusted.com but also allowing eviltrusted.com). Attackers can exploit this misconfiguration by **registering malicious domains containing the trusted string**, gaining unauthorized cross-origin access to sensitive APIs and user data.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_6/login.php	
Consequences of not Fixing the Issue	
If not fixed, attackers can exploit this weakness to **steal sensitive data, perform unauthorized actions, hijack user sessions, or abuse APIs** by hosting malicious domains containing the trusted substring. This can lead to **data breaches, account takeovers, financial fraud, and compliance violations**, ultimately damaging user trust and an organization's reputation.	
Suggested Countermeasures	
To prevent **substring match vulnerabilities**, always use **exact string matching** for CORS origin validation rather than partial or regex-based matching. Maintain a strict **whitelist of fully qualified trusted domains**, avoid dynamically reflecting user-provided origins, and implement **server-side authentication and authorization** instead of relying solely on CORS. Conduct **regular security audits** to detect and fix misconfigurations.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

Proof of Concept





2.7. CORS with Arbitrary Subdomain

Reference	**Risk Rating**
CORS with Arbitrary Subdomain	**High**
Tools Used	
Burpsuite	
Vulnerability Description	
A **CORS with arbitrary subdomain vulnerability** occurs when a server **overly trusts all subdomains** using a wildcard (*.example.com) or improper validation, allowing any subdomain (e.g., attacker.example.com) to make cross-origin requests. If an attacker gains control of a subdomain through **subdomain takeover or misconfiguration**, they can **bypass CORS restrictions, access sensitive data, and exploit API endpoints**.	
How It Was Discovered	
Manual Analysis – Intercetping and modifying the request	
Vulnerable URLs	
https://labs.hacktify.in/HTML/cors_lab/lab_7/login.php	
Consequences of not Fixing the Issue	
If not fixed, attackers can create **malicious subdomains** to perform **data theft, session hijacking, and unauthorized API access**, leading to **account takeovers, financial fraud, and exposure of sensitive information**. This can result in **data breaches, legal consequences, and reputational damage**, especially for applications handling **authentication, financial transactions, or personal data**.	
Suggested Countermeasures	
To mitigate **CORS with arbitrary subdomain vulnerabilities**, avoid using wildcards (* or *.example.com) and enforce **exact matching of trusted origins**. Secure subdomains against **takeover attacks**, use **strict authentication and authorization checks** on the backend, and implement **security headers like Content Security Policy (CSP)** to prevent exploitation. Regularly audit DNS records and CORS policies to detect and fix misconfigurations.	
References	
https://www.tenable.com/blog/understanding-cross-origin-resource-sharing-vulnerabilities	

Proof of Concept