PORTSWIGGER LABS ASSIGNMENT NO: 5

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LABS COMPLETED

- 1. SQL INECTION
- 2. CROSS-SITE SCRIPTING (XSS)
- 3. WEB CACHE POISONING
- 4. JWT (JSON WEB TOKEN)

1. SQL INJECTION

SQL injection (**SQLi**) is a web-security vulnerability that lets an attacker manipulate the SQL queries your application sends to its database. If app builds SQL by directly concatenating user input, an attacker can supply input that changes the meaning of the query — potentially reading, modifying, or deleting data, or even executing administrative commands on the database.

Lab: SQL injection vulnerability allowing login bypass



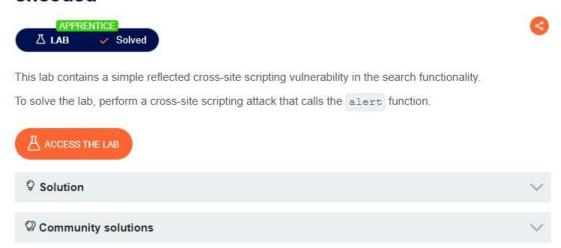
Lab: SQL injection vulnerability in WHERE clause allowing retrieval of hidden data



2. CROSS-SITE SCRIPTING (XSS)

Cross-Site Scripting (XSS) is a web security vulnerability that allows an attacker to inject malicious scripts (usually JavaScript) into web pages that other users view. When the victim's browser loads the affected page, the malicious script executes in the victim's context — often giving the attacker access to sensitive information or control over the user's session.

Lab: Reflected XSS into HTML context with nothing encoded



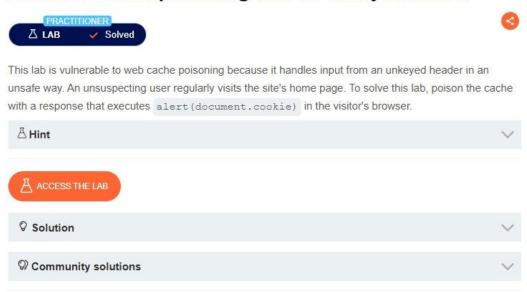
Lab: Stored XSS into HTML context with nothing encoded



3. WEB CACHE POISONING

Web Cache Poisoning is a web security vulnerability where an attacker tricks a caching server (like a CDN or reverse proxy) into storing a malicious or manipulated version of a response. Once the cache is poisoned, all users who request the cached resource will receive the attacker's malicious version — making this a powerful, large-scale attack.

Lab: Web cache poisoning with an unkeyed header



Lab: Web cache poisoning with an unkeyed cookie



4. JWT (JSON WEB TOKEN)

JWT (JSON Web Token) is a compact, URL-safe way to represent claims securely between two parties — typically used for authentication and authorization in web applications and APIs. It's a digitally signed token that allows servers to verify a user's identity without storing session data on the server

Lab: JWT authentication bypass via unverified signature

