Authentication Vulnerability Report

Lab: 2FA Simple Bypass

Platform: PortSwigger Web Security Academy

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OBJECTIVE

The objective of this lab was to identify and exploit a weakness in the two-factor authentication (2FA) implementation that allows authentication to be bypassed.

Vulnerability Type

Authentication Logic Flaw – 2FA Simple Bypass

OWASP Top 10 Category: A07 – Identification and Authentication Failures

Target Description

The target application implements a two-factor authentication mechanism after successful username and password validation.

Vulnerability Discovery

Testing revealed that the application did not properly enforce the two-factor authentication step, allowing access to the user account without completing 2FA verification.

Exploitation Steps

Logged in using valid username and password credentials.

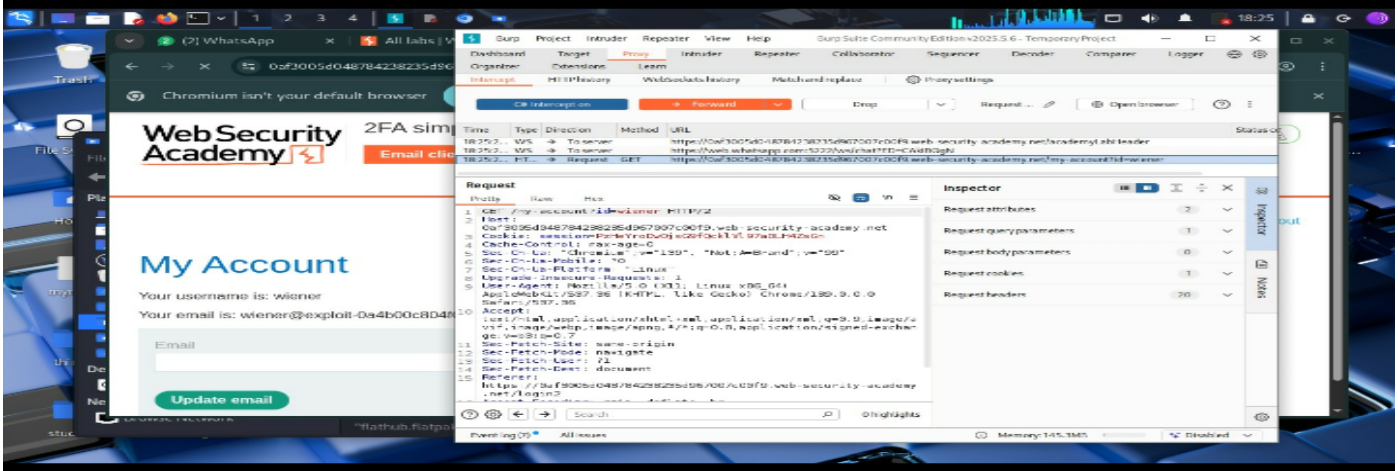
Intercepted the authentication flow using Burp Suite.

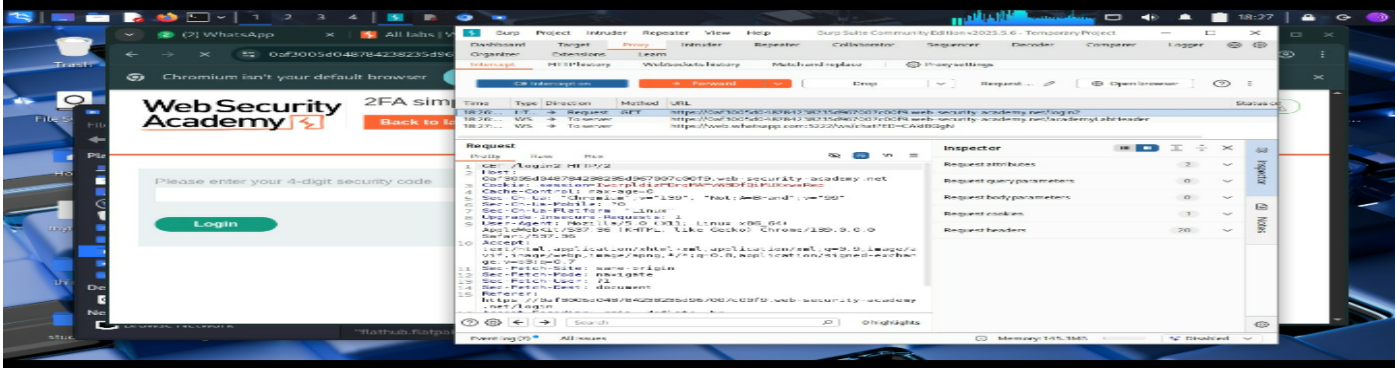
Skipped or manipulated the 2FA verification step.

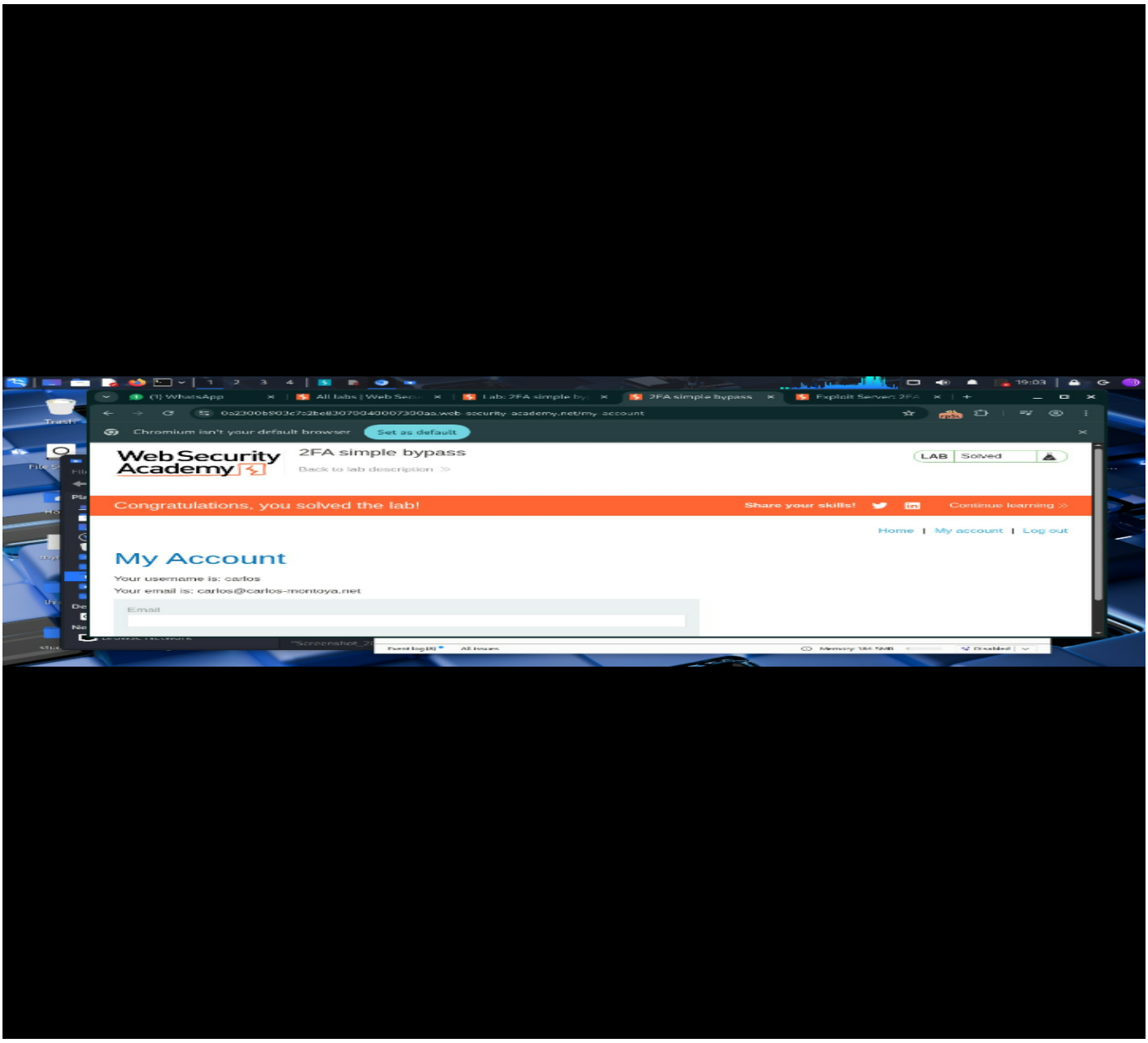
Gained access to the authenticated account without providing a valid 2FA code.

Proof of Exploitation

The screenshots below show successful access to the user account without completing the two-factor authentication process.


Chromium isn't your default browser
Web Security Academy
2FA simp
Email clie
My Account
Your username is: wiener
Your email is: wiener@exploit-0a4b00c8d4
Email
Update email
Request
Inspector
Request attributes
Request query parameters
Request body parameters
Request cookies
Request headers


Web Security Academy
Please enter your 4-digit security code
Login
Chromium isn't your default browser
Request
Inspector



Impact

An attacker could bypass two-factor authentication and gain unauthorized access to user accounts, significantly weakening the application's

authentication security.

Remediation

Enforce 2FA verification on the server side

Validate 2FA tokens before granting access

Prevent access to protected resources until 2FA is completed

Disclaimer

This test was conducted in a controlled lab environment for educational and portfolio demonstration purposes only.