DAST (Dynamic Application Security Testing)

It is a type of security testing that focuses on identifying vulnerabilities and weaknesses in an application while it is running, i.e., in a dynamic state. DAST is often used to assess the security of web applications, APIs, and other software systems that interact with users or external entities.

Goal: simulate real-world attack scenarios by sending various inputs and payloads to the application, observing its responses, and analyzing the results for potential security issues.

It is a form of black box testing (as everything is behind the scene)

Eg. Burp Suite (commercial/licenced), OWASP ZAP (open source)

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Crawling: The DAST tool explores the application by automatically navigating through different parts of it, submitting forms, and following links to reach as many pages and functionalities as possible.

Attack Simulation: The tool injects various attack payloads (e.g., SQL injection, cross-site scripting) into the application's input fields to check if it responds in a way that indicates a vulnerability.

Analysis: The tool collects and analyzes the responses from the application to detect potential security flaws, such as injection vulnerabilities, authentication issues, insecure configurations, etc.

Reporting: After the scan is complete, DAST generates a comprehensive report that highlights the identified vulnerabilities, their severity, and possible remediation steps.

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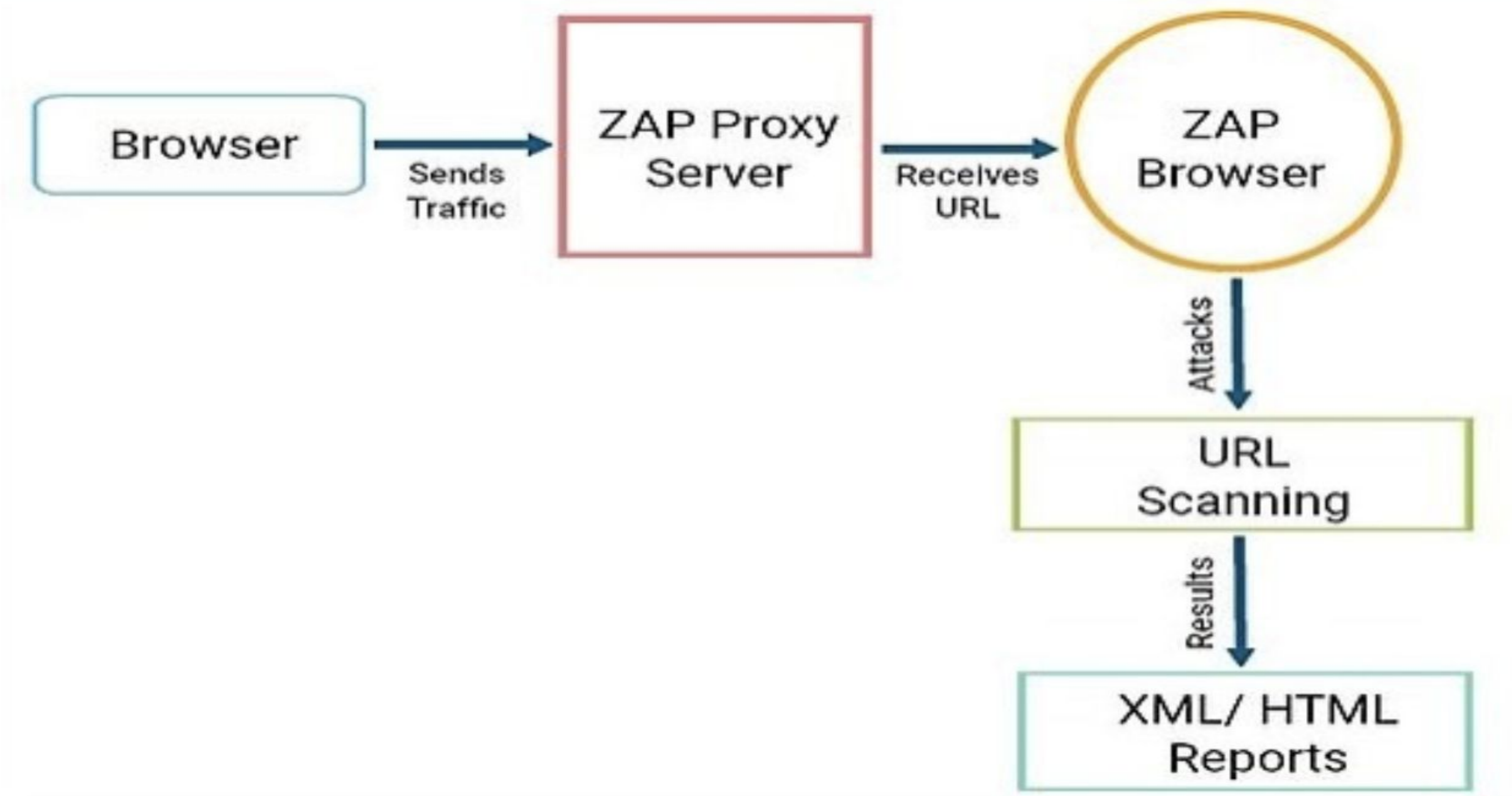

Browser
Sends Traffic
ZAP Proxy Server
Receives URL
ZAP Browser
Attacks
URL Scanning
Results
XML/ HTML Reports