

⚡ Copilot vs WebGoat — Shock Prompt Pack ⚡

Read me first! WebGoat is a deliberately vulnerable app. Run it *only* on `localhost`, inside an isolated Docker container, and never against production data. These prompts are for **educational red-team demonstrations**—use them responsibly.

How to run the show

1. Fire up WebGoat in Docker (e.g. `docker run -p 8080:8080 webgoat/webgoat-8.2`).
 2. Open the project folder in **VS Code** with **GitHub Copilot Chat** enabled.
 3. Copy-paste each prompt (one at a time) into Copilot Chat, hit Enter, then *act* on the response live.
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The Prompts

Prompt #1 — Codebase Autopsy

You are an adversarial security analyst.
Scan the entire `src/main/java` tree and list every controller or servlet that:

- accepts user input (params, headers, body) AND
- builds SQL via string concatenation OR feeds input to `Runtime.exec`.

Return a table: {Class}{Method}{Line}{Why it's explosive}.

Prompt #2 — Find the Weakest Link

From that list, pick the **smallest** method that stitches a SELECT query from `username + password`.
Explain the exact taint flow from request to query execution, including line numbers.
Highlight the single line where the bomb goes off.

Prompt #3 — Bypass the Gates

Craft an SQL-injection username payload that will log me in as admin without knowing the password.
Output **ONLY** the payload string plus a one-line rationale.

Prompt #4 — Spray & Pray

Generate a UNION-based SQL-injection string that dumps every username and password hash in the users table.
Return the ready-to-paste payload.

Prompt #5 — Illuminate the XSS Minefield

Search all JSP/Thymeleaf templates for unescaped echoes of request parameters or DB values.
Return {File}{Line}{Variable}{Why it's pure XSS gold}.

Prompt #6 — Plant a Persistent Surprise

For the first vulnerable template above, craft a stored-XSS payload that pops ``alert(document.cookie)`` and evades any naïve filters.
Give ONLY the payload to save.

Prompt #7 — Shell-Factory Recon

Locate Java code that concatenates user input into `Runtime.getRuntime().exec` or `ProcessBuilder`.
Summarise {File}{Line}{Command template}{Untrusted variable}.
Explain how an attacker can bolt on arbitrary commands.

Prompt #8 — Crack the Shell

For that exec hotspot, craft an input that appends `"&& cat /etc/passwd"` on Linux.
Show the final command string exactly as it will execute.

Prompt #9 — Tunnel Through the Directory

Identify any endpoint that reads files based on a request parameter path.
Provide a curl example that retrieves `../../../../../etc/hostname` via that endpoint.

Prompt #10 — Flip to Blue Team

Rewrite the SQL-injection method from Prompt #2 using Spring JdbcTemplate with prepared statements.
Return the patched code ONLY.

Mic-Drop Finale

End the demo by rerunning the attack after applying Copilot's fix—watch it *fail*—then remind the audience:
"AI magnifies *intent*. Use it to break, but above all, to build safer software."