

Penetration testing, in plain terms.

Penetration testing is a controlled attack on a system performed by a security professional, to find what an unauthorised attacker could actually do. The output is a report that names every weakness reproducible by the tester, what each weakness could lead to, and what to change. The topics below cover the fundamentals: what a pentest is, how it differs from other security activities, the standard methodology stages, and what a useful report contains.

HOW IT WORKS

01 Topics

- **What is Penetration Testing?:** plain-language definition, what it covers, why organisations run them.
- **Penetration Test vs Vulnerability Assessment:** same words, different work. How they differ and when to use each.
- **Penetration Test vs Bug Bounty:** paid researcher with fixed scope vs an open crowd. Coverage, cost, and contract differences.
- **Penetration Test vs Red Team:** checklist coverage vs goal-led adversary simulation. When each fits.
- **Black Box vs Gray Box vs White Box:** three ways to scope what the tester knows. Tradeoffs explained.
- **CREST vs CERT-In:** two of the most-asked-for credentials. What each one means and when auditors require it.
- **Pentest Methodology Stages:** reconnaissance, scanning, exploitation, post-exploitation, reporting. The five-stage model used by every serious team.
- **Pentest Report Formats:** executive summary, technical findings, reproducible evidence, remediation. What a useful report contains.
- **What is Autonomous Penetration Testing?:** software that runs the steps of a pentest on its own, and where it still needs people.

SOURCES

- [1] NIST SP 800-115 Technical Guide to Information Security Testing
- [2] PTES Penetration Testing Execution Standard
- [3] OSSTMM Open Source Security Testing Methodology Manual

Scope a penetration test.

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