

# Application Security Testing Training

By CtrlAltSecure.in

## About the Course

Application Security training program is designed to make participants aware of common web application vulnerabilities and the impact they can have on businesses. The course also incorporates effective defense mechanisms and the use of best practices to mitigate the risk of attacks. The course focuses on the latest hacking attacks targeted against different platforms & networks. It also covers countermeasures to secure corporate applications. The course focuses on OWASP Top 10 and other common vulnerabilities and risks.

## Topics Covered

### Topic 1: Introduction

- ❑ Introduction and Overview
- ❑ The Software Development Lifecycle (SDLC)
- ❑ Security in the SDLC
- ❑ The Importance of Security Requirements - ASVS
- ❑ Threat Modelling
- ❑ Lab Setup
- ❑ Knowledge Check

### Topic 2: Authentication and Authorization

- ❑ Broken Authentication
- ❑ Broken Access Control
- ❑ Single Sign On
- ❑ Lab

### Topic 3: Session Management Flaws

- ❑ Understanding Cookies and Session ID
- ❑ Session Management Flaws (Session Fixation, Account Takeover)
- ❑ CSRF, Clickjacking

- Cookie Security
- Lab

#### Topic 4: Injection Flaws

- SQL Injection
- Command Injection
- ORM Injection
- Hibernate Injection
- Expression Language Injection
- Server-side template injection
- Lab

#### Topic 5: Cross Site Scripting

- Reflected XSS
- Stored XSS
- DOM XSS
- Lab

#### Topic 6: XML External Entities

- XML Injection
- XXE Vulnerability
- Billion Laughs Attack
- SAML Security
- Lab

#### Topic 7: Insecure Deserialization

- Serialization and Deserialization
- Insecure Deserialization
- Lab

#### Topic 8: Other Topics

- File Uploads/Downloads
- CORS
- Same Origin
- Security Headers
- Cryptography, SSL/TLS
- Security Misconfiguration

- Using components with Known Vulnerabilities
- Audit Trails
- Tools Hands-on
- Lab

## Topic 9: OWASP API Top Ten

- API-driven world
- API Security
- Knowledge-Check

## Who should attend

- Application Security Testers / Ethical Hackers
- Developers / Security Code Reviewers
- Security Analysts / Professionals
- Students / Security Enthusiasts

## Pre-requisites

- Basic understanding of computing
- Know-how of web applications
- Networking Know-how
- Open mind
- PC/Laptop with a high-speed Internet Connection