Advanced Web Application Security Testing

Table of Course contents: Advanced Web Application Security Testing

• Introduction and Objective of OWASP Testing Framework

• Information Gathering

- 1. Testing: Spiders, robots, and Crawlers
- 2. Search engine discovery/Reconnaissance
- 3. Identify application entry points
- 4. Testing for Web Application Fingerprint
- 5. Application Discovery
- 6. Analysis of Error Codes

Configuration Management Testing

- 1. SSL/TLS Testing
- 2. DB Listener Testing
- 3. Infrastructure configuration management testing
- 4. Application configuration management testing
- 5. Testing for File extensions handling
- 6. Old, backup and unreferenced files
- 7. Infrastructure and Application Admin Interfaces
- 8. Testing for HTTP Methods and XST

• Authentication Testing

- 1. Credentials transport over an encrypted channel
- 2. Testing for user enumeration
- 3. Default or guessable (dictionary) user account
- 4. Testing For Brute Force
- 5. Testing for Bypassing authentication schema
- 6. Testing for Vulnerable remember password and pwd reset
- 7. Testing for Logout and Browser Cache Management
- 8. Testing for CAPTCHA
- 9. Testing for Multiple factors Authentication
- 10. Testing for Race Conditions

• Session Management Testing

- 1. Testing for Session Management Schema
- 2. Testing for Cookies attributes
- 3. Testing for Session Fixation
- 4. Testing for Exposed Session Variables
- 5. Testing for CSRF

Authorization testing

- 1. Testing for path traversal
- 2. Testing for bypassing authorization schema
- 3. Testing for Privilege Escalation

Business logic testing

Data Validation Testing

- 1. Testing for Reflected Cross Site Scripting
- 2. Testing for Stored Cross Site Scripting

- 3. Testing for DOM based Cross Site Scripting
- 4. Testing for Cross Site Flashing
- 5. SQL Injection
- 6. Oracle Testing
- 7. MySQL Testing
- 8. SQL Server Testing
- 9. MS Access Testing
- 10. Testing PostgreSQL
- 11. LDAP Injection
- 12. ORM Injection
- 13. XML Injection
- 14. SSI Injection
- 15. XPath Injection
- 16. IMAP/SMTP Injection
- 17. Code Injection
- 18. OS Commanding
- 19. Buffer overflow Testing
- 20. Heap overflow
- 21. Stack overflow
- 22. Format string

Denial of Service Testing

- 1. Testing for SQL Wildcard Attacks
- 2. Locking Customer Accounts
- 3. Buffer Overflows
- 4. User Specified Object Allocation
- 5. User Input as a Loop Counter
- 6. Writing User Provided Data to Disk
- 7. Failure to Release Resources
- 8. Storing too Much Data in Session

Web Services Testing

- 1. WS Information Gathering
- 2. Testing WSDL
- 3. XML Structural Testing
- 4. XML Content-level Testing
- 5. HTTP GET parameters/REST Testing
- 6. Naughty SOAP attachments
- 7. Replay Testing

AJAX Testing

- 1. AJAX Vulnerabilities
- 2. Testing For AJAX

Writing Reports:

- 1. How to value the real risk
- 2. How to write the report of the testing