

Security Code Review



1-Day Seminar Syllabus

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Security Code Review

1-day course

Course description

Code review is probably the single-most effective technique for identifying security flaws. When used together with automated tools and manual penetration testing, code review can significantly increase the cost effectiveness of an application security verification effort.

This course presents the primary techniques used to conduct a security code review, with the focus of identifying potential security vulnerabilities and code that can lead to back doors, by using manual reviews or by using tools.

Numerous exercises and examples of code are provided, along with guidance on how to efficiently identify areas that need a more in-depth review.

Target audience

Members of the software development team:

- Developers
- Team Leaders
- Architects & Designers
- Managers

Prerequisites

Before attending this course, students should be familiar with:

- Basic knowledge of information systems
- Basic Knowledge of application security
- Development background, using at least one of the following languages:
.NET, JAVA, PHP, ASP, C/C++

Course topics

Introduction – 2 H'

- 📄 Introduction to application security
- 📄 Introduction to Secure Code Review
- 📄 Introduction to malicious code
- 📄 Types of code flows
 - Data Validation
 - Authentication
 - Session management
 - Authorization
 - Cryptography
 - Error handling
 - Logging
 - Security Configuration
 - Network Architecture
 - business logic flaws in applications

Secure Code Review Methodology – 4 H'

- 📄 What security issue look like in code
- 📄 Manual review
- 📄 Using automated tools
- 📄 Ways to find suspected back doors in code review
- 📄 Code review and SDL

Hands-on Labs- 2 H'

- 📄 Hands on practices – find security bugs by using automated free tools
- 📄 Hand on practices – find security bugs by manual review