



# Secure DevOps Course

Web and mobile applications are a potentially vulnerable entry point into your corporate network as they can be leveraged by hackers to gain access to your IT infrastructure. This course will teach developers to understand how attackers work and take security into account when they write their code.

The training, specially designed by Navixia, allows developers to improve their understanding of operational IT security in relation to the development of applications. The interactive and practical course includes various labs reflecting concrete issues. Each participant will concretely experiment the various code-related risks and their consequences, learn how to write safe code and to adopt a security-oriented approach to IT development in general.

## A Modular Structure

The course is tailored to suit your organisation's specific requirements. Building on a common core, we offer a selection of modules to choose from, each focussing on an important aspect of application-related security. Participants get to address vulnerabilities from the respective angles of the attacker (hacker) and/or the defender (developer). Build your own course by choosing from the modules described on the back of this sheet.

On request, other modules can be designed to reflect your specific requirements. Do not hesitate to contact us and discuss this further.

## Improved Corporate IT Security

There is a marked improvement in IT security once developers are aware of code-related potential risks and know how to prevent them. This affords the company a more effective protection.

## Who should take part?

This course is specially designed for **developers, software architects** or any person who is required to code or integrate web or mobile applications as part of their activities.

## Available programming languages

C# / Java / JavaScript / PHP  
Other languages on request.

## Logistics

The training can take place in your offices or in Navixia's training centre, from 4 participants.

Depending on the number of modules selected, the course duration can vary from 1 to 3 days.

Contact us to discuss your needs and obtain a personalised offer, without any engagement.

## Highly Qualified Instructors

Navixia's instructors have an extended experience, both as pen testers and as developers.

As a result, they have a pragmatic and concrete vision of the operational attack/defence procedures, and are thus able to give relevant advice adapted to the reality of the field



# Available Training Modules

## Footprinting

Understanding the importance of restricting as much as possible any information about internal infrastructure, framework and technologies used, so as not to provide attackers with information they can exploit to launch attacks related to specific tools or vulnerabilities. Learning to limit information provided by the code.

## Injections (SQL / NOSQL)

Understanding how an attacker can exploit the specific properties of an application to communicate directly with the database and thus recover or inject data that would normally not be accessible. Analysing methods that sanitise input data. Learning to code safely and avoid these risks.

## Authentication

Understanding how an attacker can exploit features related to login and identification procedures in order to access protected resources. Learning how to avoid such risks when coding.

## Sensitive Data Exposure

Understanding how and where an application's confidential data is to be stored. Understanding the difference between user-accessible information and data that is exclusively kept on the server side.

## Broken Access Control

Understanding how an attacker can take advantage of flaws in the access control procedure to reach resources whose access is normally protected by authentication. Learning to counter such threats when coding.

## Cross-Site Scripting (XSS)

Understanding the possible causes of cross-site scripting attacks (XSS) and their effect on web browsers. Learning to prevent risks during development.

## Using Components with Known Vulns

Understanding what type of attacks can be executed from known public vulnerabilities and how to prevent such risks.

## Crypto : Hash Function

Understanding the crucial importance of hashing passwords in databases. Analysing the robustness of various existing hash functions and learning how to use them effectively.

## Crypto : mastering SSL settings

Analysing SSL settings and the properties of an SSL certificate.

## Mobile Applications

Understanding the purpose of the OWASP specifications for mobile applications, their effects and consequences on security. Learning how to put them in practice when coding.

## Secure API

Understanding how to build a robust application programming interface (API). Analysing, from the angle of security, the different authentication methods an API can use (password, key, token). Put these notions into practice.

## Session Management

Understanding how to handle sessions on the client side and what are the best life cycle related practices (creation, verification, expiration). Analysing the various ways to manage a client side session and its properties (length, entropy, content).