

# Training

## Web Application Security

Date of the online training: **March 15-17, 2021**

### Overview

Have you ever hacked a website? Have you ever stolen a database or executed unauthorized commands remotely on a server? Ever stolen a user account with JavaScript?

But better, yet: Have you ever fixed security vulnerabilities?

The great and fun hands-on experience on web application security is not only for beginners. It is a back-and-forth between attacking and protecting, discussing the quick-and-dirty fixes and comparing them to better architectural changes to prevent such mistakes in the future.

In this workshop you will learn how to fix and secure a horribly insecure classified ad application against the most common and severe attacks on web applications.

You will learn systematically about the most critical security vulnerabilities in web applications, you will get enough well guided hands-on experience in first finding a vulnerability, executing attacks, and finally fixing it once and for all. Step by step we will secure the application, and you will see how easy it is to avoid critical mistakes.

You will learn and understand concepts and principles, rather than a certain framework or language. Despite the fact that we'll hack and protect a Java-Application, every concept is technology independent and can be directly transferred to .net, PHP, or other technologies. You do not even have to know any Java to have fun and learn a lot in this workshop!

## Agenda

- Introduction to OWASP
- SQL Injection
- Authentication (including and beyond passwords)
- Cracking and securing passwords
- Securing your cookies from the cookie monster
- TLS
- Command Injection
- Cross Site Scripting (XSS)
- Insecure Deserialization
- XML External Entity Attacks
- Session Hijacking and Session Fixation
- Input Validation vs. Output Escaping
- Cross Site Request Forgery
- Same Origin Policy
- Security Headers (CSP, CORS, and many, many more)
- Clickjacking
- Tools (sqlmap, OWASP ZAP, ...)
- Authorization (Access Control)

## Who should attend this training?

This workshop is targeted mainly to Software Developers, Software Engineers, Software Architects, but also Project Managers, Software Team Leaders, Product Owners, etc. will benefit from this training.

If you are a beginner in the security-world, you will get a great and comprehensive overview of web-application security. If you are an experienced secure developer, I guarantee you, you will still learn something new and get a lot of practical experience!

## Prerequisites

You should be familiar with at least one programming language and have at least a basic understanding of the terms http, HTML, browser, client, and server.

## Requirements

Most of the training you will be actively hacking and securing a web application which comes as a convenient VirtualBox-Image (.ova). You'll get a link to the VM at least one week before the training together with easy and detailed instructions on how to set this up. (VMware Workstation or VMware Player should also work, but you will know more about it than I do).

## About the Trainers

**Hannes Molsen** is Product Security Manager for Dräger, a more than 130 year-old family company known, e.g., for medical devices and safety systems. He is responsible for creating and maintaining an environment which enables Dräger to ship devices and applications that are secure to sustain in an interconnected world. Throughout the entire system's lifecycle, to protect life, data and system functionality.

At Draeger as well as during his activities as self-employed Security Professional, he also tests devices and applications, and gives security trainings for developers, product managers and software architects, and creates and assesses secure software architectures.

Before taking this position, he was working as a passionate secure coder, with over 15 years of experience in web application development, software for embedded systems and interconnected devices. He is also actively involved with the grass roots organization "I am the cavalry", supporting the efforts to connect manufacturers and the security research community to become safer, sooner, together.

## Booking

Recommended online booking of trainings through:

<https://troopers.de/troopers21/trainings>

## Contact

**Need assistance?** Don't hesitate to call us. We are fluent in English and German.

+49 6221 480390 or [info@troopers.de](mailto:info@troopers.de)

**Booking is also possible offline through your trusted partner:**

**HM Training Solutions**, Falkenstrasse 6, 63820 Elsenfeld, Germany

+49 6022 508200 / [info@hmtrainingsolutions.com](mailto:info@hmtrainingsolutions.com)

+49 6022 5089999 / [www.hmtrainingsolutions.com](http://www.hmtrainingsolutions.com)