

Training Catalogue 22/05/2020

# KAÏNA-COM TRAINING CATALOGUE

# **Web Application Security**











# **KSE002 - Web Application Security**

Reference	KSE002
Experience	<ul><li>☑ Beginner</li><li>☑ Intermediate</li><li>☐ Advanced</li></ul>
Duration	Training Program:  • 3 days
Training Method	☐ I: i-learning, individual training (web-based training)  ☑ V: v-learning, virtual class  ☐ C: c-learning, classroom training  KAÏNA-COM  LE CARRÉ HAUSSMANN II,  6 Allée de la Connaissance  77127 Lieusaint - France
Price	2.049,00 € HT
Prerequisite	Since web applications are based on HTTP, HTML and JavaScript, the following is recommended:  • A general understanding of HTTP, the request-response concept, HTTP headers, HTTP cookies.  • Understanding HTML.  • Understanding JavaScript.  The relevant terms are presented in the course, but prior knowledge will help the participant.  Additionally, prior knowledge on web application architecture and in the web infrastructure will help.









## KSE002 - Web Application Security, Continued

#### **Audience**

Application developers and Everyone who seeks to better understand how to build Secure Applications.

## **Objective**

Most of the focus when dealing with security has been on securing the network infrastructure and the server OS. However, during the last few years the focus has shifted to the application layer. This is because infrastructure (network and OS) security has improved significantly while applications have remained vulnerable. The application layer has become the main target of attack. This is particularly true for web applications which are more vulnerable. The course discusses how application aspects such as authentication, confidentiality and data integrity apply to web applications. In addition, participants will learn in depth what web application vulnerabilities are, what causes them, how to prevent them from design/coding and testing perspectives and what countermeasure are required to prevent exploitation of these vulnerabilities.

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## KSE002 - Web Application Security, Continued

## Course Contents

### **Course Contents:**

**Table 1: KSE002 - Course Contents** 

Chapter	Description
Introduction	The unique security aspects and challenges of web applications
Introduction	Application layer logical vulnerabilities
	Application layer DoS and DDoS
Confidentiality and data integrity	<ul><li>Encryption and hashing</li><li>SSL</li></ul>
	HTTP basic and digest authentication
HTTP Authentication	Certificate based authentication
and session	Application layer authentication
management attacks and	Web session management mechanisms
mitigation	Session hijacking
	Cookie poisoning
Non-validated	Direct object reference vulnerability and mitigation
input and related attacks	Input validation methodology
	Evasion techniques
	SQL injection attack description and examples
Injection	SQL injection evasion techniques
attacks and mitigation	Command (OS) injection
	LDAP Injection
	Buffer overflow

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# KSE002 - Web Application Security, Continued

## Course Contents, continued

Chapter	Description
Cross site scripting attacks and mitigation	<ul> <li>Reflected XSS</li> <li>Stored XSS</li> <li>DOM based XSS</li> <li>XSS evasion techniques</li> <li>XSS mitigation countermeasures</li> </ul>
Cross site request forgery and mitigation	<ul> <li>CSRF (XSRF) attack description</li> <li>ISRF attack description</li> <li>CSRF/ISRF mitigation countermeasures</li> </ul>
Regulations and web application security	<ul> <li>OpenID</li> <li>OAuth</li> <li>SAML</li> <li>XCAML</li> <li>Web application single sign on (SSO) and OpenID</li> </ul>
Security of AJAX based web applications	Security of AJAX based web applications
The End	<ul><li>Summary</li><li>Q&amp;A</li><li>Couse's Evaluation</li></ul>





