IT Security

Application Security & SDLC

by Bjoern Kimminich

Curriculum 2nd Semester

1. Open Web Application Security Project (OWASP)
2. Injection
3. XSS
4. Authentication Flaws
5. Authorization Flaws
6. Cryptographic Failures
7. Insecure Dependencies & Configuration
8. Software & Data Integrity Failures
9. Secure Development Lifecycle

Schedule

- **Fridays, 12:30 - 15:00**
- 9 lectures (05.08. - 30.09.22)
- 100% via ZOOM (invite distributed via email/calendar)

Test Exam

- **04.10.2022** (90min)
- **09:15 - 10:45** / Audimax
- ⚠️ Covers topics from both semesters
- ❎ Adjourning the exam is discouraged

System Requirements

To perform the exercises on your private computer you need

- *either* Node.js (18.x, 16.x or 14.x)
- *or* Docker

ℹ️ *On the university computers Node.js should already be available. You can verify this by running* `node -v` *on the command line. It should display a 14.x (or higher) version.*

💻 *You can always fall back to your personal laptop for the exercises as it should be free from virtualization, proxying or installation hurdles!*

Recommended Resources

- OWASP: OWASP Top 10 - 2021
- OWASP: OWASP Cheat Sheet Series

Literature Recommendations *(optional)*

- Kimminich: Pwning OWASP Juice Shop, 2022
- Stuttard, Pinto: The Web Application Hacker's Handbook 2, 2011
- Zalewski: The Tangled Web: A Guide to Securing Modern Web Applications, 2011
- Zalewski, Heiderich: Tangled Web - Der Security-Leitfaden für Webentwickler, 2012 (🇩🇪)

Awesome Web Security

> Curated list of Web Security materials and resources.

https://github.com/qazbnm456/awesome-web-security