IT Security

Application Security & SDLC

by Bjoern Kimminich

Bjoern Kimminich

- Nordakademie Graduate (I99a)
- IT Architect / AppSec Officer at Kuehne + Nagel
- Lecturer at Nordakademie since 2009
- Volunteer in the Open Web Application Security Project
- Board Member of the German OWASP Chapter
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Contact Information

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Miscellaneous

- https://keybase.io/bkimminich
- https://twitter.com/bkimminich

Course Material

https://github.com/bkimminich/it-security-lecture

Course Material

- All slides and references are in 🇬🇧 language
- The lecture can be held in 🇬🇧 or 🇩🇪 language
- Latest course material is available only on GitHub
- Content exists as `Markdown` files for use with Marp
- Slides can be downloaded as PDF from GitHub
- All slides are published as OER under CC BY 4.0 license

You can help save a 🌳 by not 🖨 all slides for the entire course in advance as content might change during the course!

Curriculum 2nd Semester

- Open Web Application Security Project (OWASP)
- Common Attacks (Injection, XSS, CSRF, XXE, Deserialization)
- Authentication & Authorization Flaws
- Software Dependency Management
- Sensitive Data
- Secure Development Lifecycle
- Web Application Firewalls
- Security Automation & AppSec Pipeline

Schedule

- Tuesdays, 9:15 - 11:45
- 9 lectures (31.07. - 29.09.18)

Test Exam

- **Thursday, 04.10.18** (90min)
- **11:30 - 13:00** / Audimax
- ⚠️ Covers topics from both semesters

Rules

- Physical presence at lectures is mandatory and will be logged
- Exercises are mandatory (unless explicitly marked as *optional*)
- Active participation is encouraged. Otherwise at least be quiet
- If you are done with the last exercise of the day, you may leave

System Requirements

To perform the exercises on your private computer you need

- *either* Node.js (8.x or 9.x)
- *or* Docker
- *or* Vagrant

ℹ️ *On the university computers Node.js should already be available through* `nvm`*. You can verify this by running* `node -v` *on the command line. It should display an 8.x (or 9.x) version. If it shows any older or newer version please run* `nvm install 8.11.3` *and then* `nvm use 8.11.3` *to install and switch to that version.*

Recommended Resources

- OWASP: OWASP Top 10 - 2017, 2017
- OWASP: OWASP Cheat Sheet Series, 2018

Optional Literature Recommendations

- Stuttard, Pinto: The Web Application Hacker's Handbook 2, 2011
- Kimminich: Pwning OWASP Juice Shop, 2018