

# Uni App Security Themes

Themes for the Anwendungssicherheit (app security) course at HdM Stuttgart

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# Introduction

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These study materials are heavily based on professor Heuzeroth's "Anwendungssicherheit" lecture at HdM Stuttgart.

**Found an error or have a suggestion?** Please open an issue on GitHub ([github.com/pojntfx/uni-appsecurity-notes](https://github.com/pojntfx/uni-appsecurity-notes)):



Figure 1: QR code to source repository



Figure 2: AGPL-3.0 license badge

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# Themes

*Please check out Jakob's notes for more detailed study materials!*

- Basics and Security Objectives (8 points)
  - CIA triad
  - Definition of security & safety
  - Definition of software security & safety
  - How do software security issues occur, and what are their causes?
  - What are risks, threats and vulnerabilities? (from the basics slides)
  - Ranking risks
  - Contradictions in software security (security vs vulnerability)
- Secure Development Process (4 points): Data flow diagram (see STRIDE) and modelled system are given, analyze the secure development principles
- Buffer Overflow (10 points):
  - Screenshots from SL-Mail exploit are given, explain step by step (with parameters and tool names)
  - Include buffer overflow cheat sheet
  - Unique string search vs binary search