Motivation
Testing capacity is usually limited. Therefore, automatic checking technologies can be applied to improve the quality of manually generated test suits. During the software development process (formal) models of the specification may be created anyway. Those can be used to derive test cases, allowing to check if the implementation conforms to the modeled specification. Moreover, additional test cases can be created automatically to enhance a given test suite and satisfy a given code coverage metric.

Project description
Goals
• Generate/Understand a formal model of a given specification
• Investigate coverage metrics
• Implement/Apply your tool
• Evaluate generated test suite

Background
• C/C++
• (Automatic) Software Testing

Prior knowledge of these topics is of advantage, but not a prerequisite. A firm interest is sufficient.

Deliverables
• Implementation (C/C++)
• Written Report (Documentation & Experimental Evaluation)
• Presentation (15-20 min)

Scope and Credits
Studies: ☑ INF ☑ SEW ☑ TEL ☑ MATH
The scope, effort, and credits of this project are scalable.

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