Bachelor/Master Thesis Topic
Grammar-Based Repair for Libre Office Documents

Motivation and Background

Software systems require correct data structures and input files to operate correctly [1]. There, are several domain specific approaches to repair data structures and especially input files like documents for LibreOffice. In this thesis the student shall implement a generic grammar-based repair algorithms for the *OpenDocument file format* (ODF).

Goals

The goal of this project is to create generic grammar-based repair algorithms for Libre Office documents.

Description of the Task

- Getting familiar with the probabilistic grammar for Libre Office
- Implement a grammar based repair for .odt documents
- Perform an experimental evaluation of the repair capabilities

Research Type

Theoretical Aspects:	★★★★☆
Industrial Relevance:	★★★☆☆
Implementation	★★★★☆

Prerequisite

The student should be enrolled in the bachelor/master of computer science program, and has completed the required course modules to start a bachelor/master thesis.

Skills required

Programming skills in Java or C++, understanding of, or willingness to learn, the software engineering and software analysis foundations needed for the project.

References

[1]   Brian Demsky, Martin C. Rinard: Automatic detection and repair of errors in data structures. OOPSLA 2003: 78-95

Contacts

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Application

Please contact me during my office hours or send me an email with the title: "[ThesisProject]-GrammarBasedRepairofLibreOffice" to se-career@informatik.hu-berlin.de