

Assignment 1

ELF loader and mini disassembler

Overview

In this assignment you must build a tool that loads an ELF file and disassembles all executable sections using linear disassembly, as provided by Capstone. The tool must be able to work with both stripped and unstripped binaries.

ELF binaries contain several different sections. Some of them may contain executable code. You can find these sections by observing their flags (`sh_flags`).

Operation

You should build your tool in C/C++ using `libbfd` or `libelf` for loading the ELF. The tool should open an ELF binary, display only the executable sections that are contained in the binary, and for each such section produce a linear disassembly of the section's contents. In case there is a symbol table, the tool should attempt to print the function names in the particular addresses that signify a function starting point.

Submission

You should submit your source code and a Makefile for building it as a compressed tarball (`.tgz`). Your program should be able to build and run on the provided VM or on the Unix lab.

Deadline

Submit your work by the 26th of March (end of day).

Good luck!