

COMP 3200 Midterm Review

- Be prepared to recognize and talk about the properties of regular and context free languages, and know representative samples of each.
- Given a description of a language, construct any of the following (as appropriate):
 - an deterministic FSA that recognizes it.
 - a non-deterministic FSA that recognizes it.
 - a regular expression that denotes it.
- Provide an English characterization (not a literal reading) of the language corresponding to any of the following:
 - an deterministic FSA.
 - an non-deterministic FSA.
 - a regular expression.
- Given a regular expression, construct an NFA that accepts the language that it denotes, *using the algorithm we discussed in class*.
- Given an NFA, construct a DFA that recognizes the same language, *using the algorithm we discussed in class*.
- Given a DFA that is not minimal, construct a minimal DFA that recognizes the same language, *using the algorithm we discussed in class*.
- Be prepared to reflect on/discuss project #1.
- Be prepared to answer several essay questions on concepts that we have covered, including languages, machines, the Church-Turing Thesis, the Delta Factor, Lexical Analysis, the Chomsky Hierarchy, and the similarities/differences between theoretical models (regex, automata, etc.) and practical tools (POSIX, Jflex, compilers, etc.).