

TDT4205 Compilers

Exercise 1

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1 Task 1

Version info of *gcc*, *flex* and *bison*

- gcc (GCC) 4.2.3 (Ubuntu 4.2.3-2ubuntu7)
- flex 2.5.34
- bison (GNU Bison) 2.3

2 Task 2

A lexical analyzer is a program that accepts the source code of a program as a stream of characters, and identifying them as lexemes and outputs this as tokens.

An acceptor “accepts” the token stream generated by the lexical analyzer and decides if it satisfies the syntax of the programming language.

3 Task 3

3.1

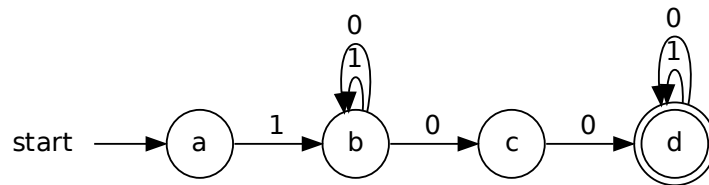


Figure 1: NDF for $1(0-1)^*00(0-1)^*$

3.2

This language includes

- The word 100
- All words starting with 100

3.3

| | | |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

Figure 2: Transition table for $1(0-1)^*00(0-1)^*$