

Lab 1: Lexer

Implement lexer for selected programming language. Store tokens in a special table. Display structured lexical information after processing. Make sure to detect and indicate lexical errors in the input. To accomplish this a specialized error “token” could be introduced.

Note: at least part of the tokens should be recognized using **FA technique**.

Following “tokens” should be considered:

- numeric constants
- literals and symbolic constants
- preprocessor directives
- comments
- keywords
- identifiers
- operators
- punctuation marks

Options for output:

- sequence of tokens
- source code highlighting
- tokens sorted by type

Programming language variants:

1. C
2. C++
3. Pascal
4. Delphi
5. Java
6. Java Script
7. PHP
8. ASP
9. Python
10. C#
11. Swift
12. Lisp
13. Kotlin
14. Ruby
15. (Visual) Basic
16. Haskell
17. FORTRAN
18. Objective C

19. SQL

This lab is based on lab [лексичний аналіз в мовах програмування](#).