## Assignment #1

Write a program for lexical analysis i.e. takes a line from file or keyboard and specify each word or character into the following tokens.

- 1. Any word either combination of characters and digits or combination of characters -> **Identifier**.
- 2. Any number -> Constant
- 3. Single character token ->
  - a. Parenthesis -> ( ), { }, [ ]
  - b. Punctuation sign -> (semicolon), (colon), (coma)
  - c. Arithmetic operator  $\rightarrow$  + , -, \*, /
- 4. Keyword (**if, else, ...**)

## **Sample Input (Console Input / File Input):**

int a = b\*c + 10;

## **Sample output:**

Keyword (1): int

**Identifier (3)**: a, b, c

**Operator** (3): =, \*, +

**Constant (1)**: 10

**Punctuation (1):**;