**University of Asia Pacific**

**Department of Computer Science & Engineering**

**CSE 430: Compiler Design**

**Lab #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.

* Any word either combination of characters and digits or combination of characters: **Identifier**.
* Any number : **Constant**
* Single character token :
  + **Parenthesis** : ( ), { }, [ ]
  + **Punctuation** sign : ;(semicolon) , : (colon) , , (coma)
  + **Arithmetic Operator** : + , -, \*, /
* **Logical Operator** : >, >=, <, <=, ==, !=
* **Keyword** (if, else, …)

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

int a = b\*c + 10;

**Sample output:**

**Keyword (1)**: int

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

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

**Constant (1)**: 10

**Punctuation (1)**: ;