

# Group 7

## TokenTypes

### ACE LANGUAGE

#### 1. TokenType\_IDENTIFIER :

Identifier is assigned to any variable name or function name. It can also be used for many other programming constructs.

Regular Language :

$$[a-z, A-Z, _][a-z, A-Z, 0-9, _]^*$$

#### 2. TokenType\_NUM:

This token is assigned to numbers, specifically integers in our language.

Regular Language :

$$0|[1-9][0-9]^*$$

#### 3. TokenType\_OPERATOR:

This token is assigned to all the operators of our language.

Regular Language :

$$+ | ++ | - | -- | * | / | > | >= | <= | < | = | == | ! | ~ | \& | \&\& | | | | | \# | ^ | \%$$

#### 4. TokenType\_KEYWORD:

The KEYWORD token denotes the reserved keywords in our language.

Regular language:

"if" | "else\_if" | "else" | "num" | "char" | "flag" | "str" | "void" | "true" |  
"false" | "len" | "headof" | "tailof" | "main" | "echo" | "floop" | "wloop" |  
"func" | "cons" | "cook" | "return" | "try" | "catch" | "throw"

#### 5. TokenType\_CONSTANT:

All the characters between Quotations (" " or ') are put in the CONSTANT class.

The Regular Language :

" . \* ? " | ' . \* ? '

#### 6. TokenType\_OTHER:

OTHER Class is for the characters which define scope or end of line.

Regular Language :

[ | ] | { | } | ( | ) | ; | : | \

#### 7. TokenType\_EOF:

EOF is a token which simply denotes the end of the input file in our language ace