

**COMPILER CONSTRUCTION**

# BSCS-504 BSCS-III (Section A) PROJECT FILE

# GROUP MEMBERS:

B19102155 USMAN JILANI

B19102041 HAMZA EJAZ

B19102088 MUHAMMAD OSAMA BIN FAISAL

# COURSE INCHARGE:

MISS MARYAM FEROZE

# PROJECT LANGUAGE:

❖ Java

# INTRODUCTION

To define the language of the compiler, we need to define the following

# Data Types

Integer, Character, Double, Boolean, String

# KEYWORDS:

|  |  |  |  |
| --- | --- | --- | --- |
| break Continue do class | | | |
| catch Else false default | | | |
| true if for static | | | |
| public | private  try  this  super  protected | new  return  abstract  interface | main  in  final |
|
| void |
| while |

# OPERATORS:

## Arithmetic

### +, -, \*, / , %

## Relational

### <, >, <=, >=, !=, ==

## Logical

### &&, ||, !

**Increment-Decrement**

### ++, --

## Assignment

### =, +=, -=, \*=, /=, %=

# PUNCTUATORS:

; (semi colon)

: (colon)

, (comma)

. (dot)

( ) (brackets)

[ ] (square brackets)

{ } (curly brackets)

# IDENTIFIERS:

* Identifier cannot start with digit.
* The first character can be followed by a digit or an alphabet.
* No special characters in the identifier.

### [A-Z a-z] | [A-Z a-z 0-9]\*

# CONSTANTS:

**Integer**

[+ -]? [0-9]\*

**Double**

### [+ -]? [0-9]\* . [0-9]+

### **String**

“\[‘ “ \ n t r o b]|[@ + - \* /]|[A-Z a-z 0-9]”

## Boolean

(true|false)