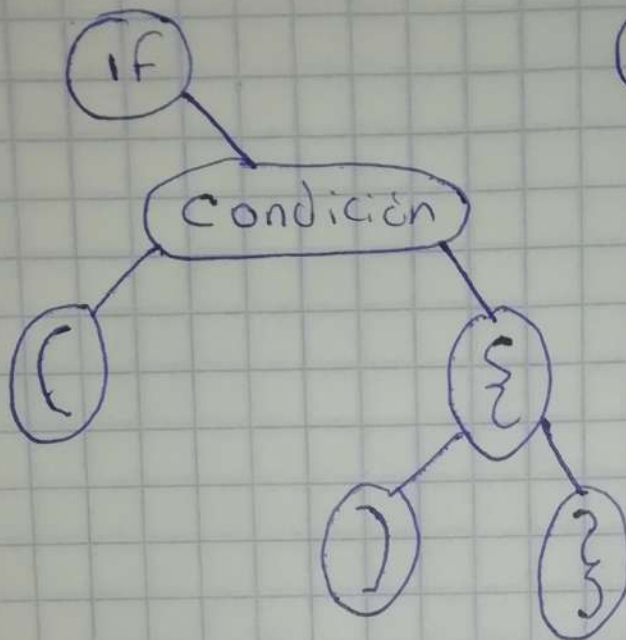
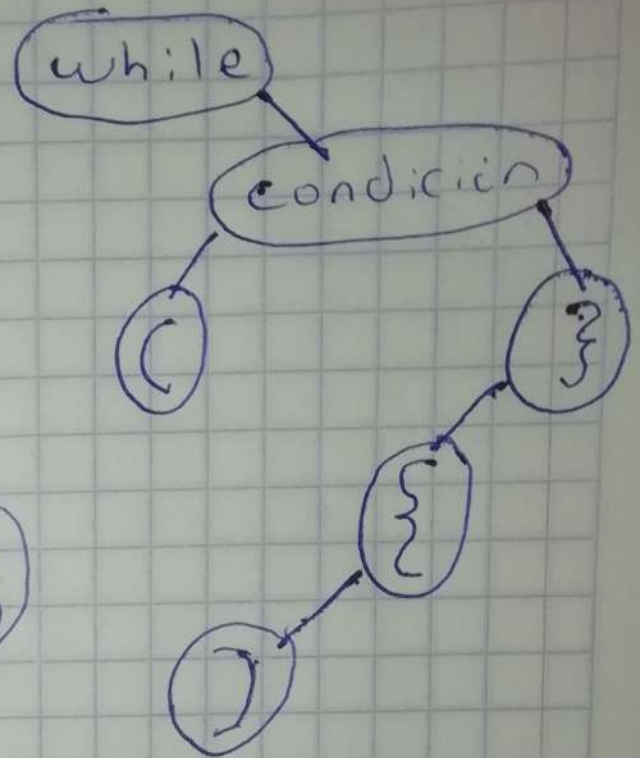


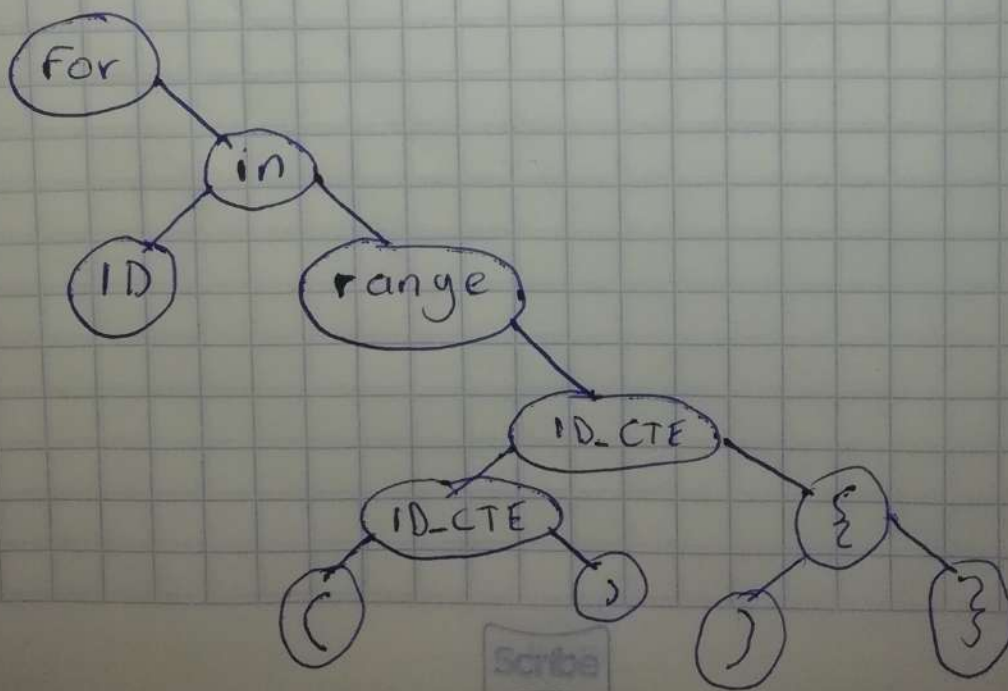
Si :



mientras :

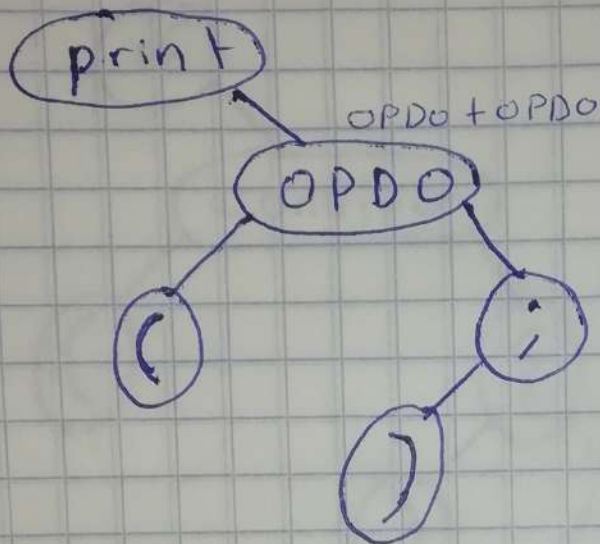


Para :

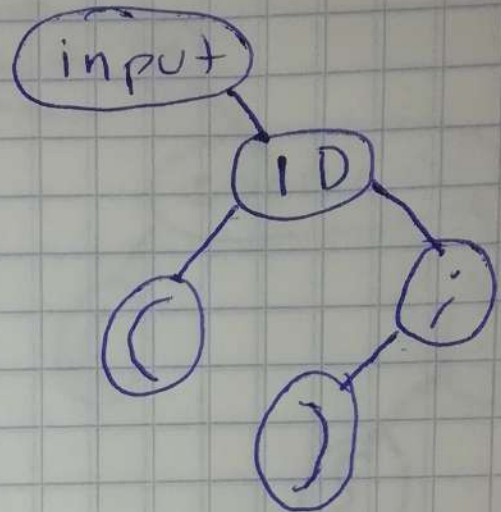


Pérez Castellanos Gabriel Alejandro

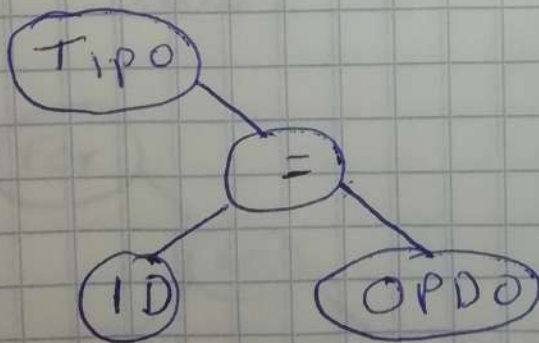
Imprimir:



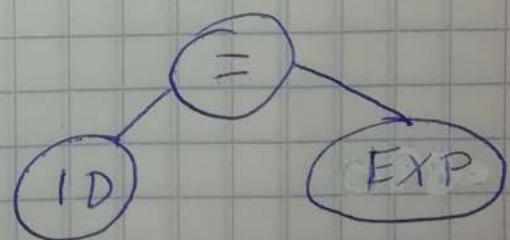
Leer:



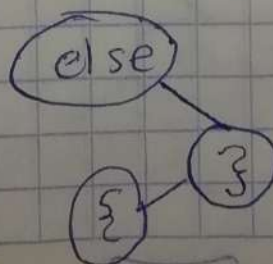
Declaración:



Asignación:



Si no:



Scribe

## EXPRESIONES REGULARES

SENTENCIA	EXPRESION REGULAR
SI	$\wedge(\text{if})[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*(\< \> != >= <= ==)[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*((\text{or} \text{and})[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*(\< \> != >= <= ==)[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))*[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^*(\text{else}[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^*)? \$$
MIENTRAS	$\wedge(\text{while})[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*(\< \> != >= <= ==)[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*((\text{or} \text{and})[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*(\< \> != >= <= ==)[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))*[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^* \$$
PARA	$\wedge(\text{for})[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^*)[\backslash s]^*(\text{in})[\backslash s]^*(\text{range})[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*,[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^*) (((0-9)+\backslash\cdot)?[0-9]+)))[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^* \$$
IMPRIMIR	$\wedge(\text{print})[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")))[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")))*[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^* \$$
ENTRADA	$\wedge(\text{input})[\backslash s]^*\wedge([\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^*)[\backslash s]^*\backslash\{[\backslash s]^*\}\backslash s]^* \$$
DECLARACION	$\wedge((\text{int}) (\text{float}) (\text{String}))[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^*)[\backslash s]^*=[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^* (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")))[\backslash s]^*;[\backslash s]^* \$$
ASIGNACION	$\wedge([A-Za-z]+[A-Za-z\_0-9]^*)[\backslash s]^*=[\backslash s]^*(((A-Za-z]+[A-Za-z\_0-9]^*) (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")) (((A-Za-z]+[A-Za-z\_0-9]^*) (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")))[\backslash s]^*(\* \+ \- /)[\backslash s]^*([A-Za-z]+[A-Za-z\_0-9]^*) (((0-9)+\backslash\cdot)?[0-9]+)) ("[^"]")))[\backslash s]^*;[\backslash s]^* \$$

## GRAMATICA DE MI LENGUAJE

$G = \{ NT, T, S, P \}$

$T = \{ 0-9, A-Z, a-z, +, -, *, /, =, <, >, ==, <=, >=, !=, (, ), ", \_, //s, :, ., \}, \{, \text{print}, \text{input}, \text{for}, \text{if}, \text{else}, \text{while}, \text{int}, \text{float}, \text{String} \}$

$NT = \{ <DEC>, <S>, <TIPO>, <ID>, <LETRA>, <DIG>, <GUION>, <CTEE>, <CTEF>, <CTECAD> \}$

$S = <S>$

$P = \{$

$<LETRA> ::= A|B|C|D|E|F|G|H|I|J|K|L|M|N|O|P|Q|R|S|T|U|V|W|X|Y|Z$

$|a|b|c|d|e|f|g|h|i|j|k|l|m|n|o|p|q|r|s|t|u|v|w|x|y|z$

$<DIG> ::= 0|1|2|3|4|5|6|7|8|9$

$<GUION> ::= \_$

$<ID> ::= <LETRA> | <ID><LETRA> | <ID><DIG> | <ID><GUION>$

$<CTEE> ::= <DIG> | <CTEE><DIG>$

$<CTEF> ::= <CTEE>.<CTEE>$

$<CTECAD> ::= "(\"[^\"]\"*)"$

$<CTE> ::= <CTEE> | <CTEF> | <CTECAD>$

$<OPA> ::= + | - | * | /$

$<OPL> ::= \text{and} | \text{or}$

$<ID\_CTE> ::= <ID> | <CTEE> | <CTEF> | <ID\_CTE><OPA><ID\_CTE>$

$<OPDO> ::= <CTECAD> | <ID\_CTE>$

$<EXP> ::= <OPDO><OPA><OPDO>$

$<TIPO> ::= \text{int} | \text{float} | \text{String}$

$<DEC> ::= <TIPO> <ID> = <OPDO> ;$

$<EXP> ::= <OPDO> | <OPDO><OPA><OPDO>$

$<ASIG> ::= <ID> = <EXP> ;$

$<LEER> ::= \text{input} ( <ID> ) ;$

$<IMPRIMIR> ::= \text{print} ( <OPDO> | <OPDO> + <OPDO> ) ;$

$<COMP> ::= < | > | == | <= | >= | !=$

$<CONDICION> ::= <ID\_CTE> <COMP> <ID\_CTE> | <CONDICION> <OPL> <CONDICION>$

```

<SINO>::= else { <S> }

<SI>::= if ( <CONDICION> ) { <S> } | <SI> <SINO>

<MIENTRAS>::= while ( <CONDICION> ) { <S> }

<PARA>::= for <ID> in range(<ID_CTE> , <ID_CTE>) { <S> }

<S>::= <EXP> | <ASIG> | <LEER> | <IMPRIMIR> | <SI> | <PARA> | <MIENTRAS> | <S>
}

```

CLAVE_ERROR	DESCRIPCION
E001	Error de sintaxis
E002	Token no valido
E003	ID no declarado
E004	ID no puede ser palabra reservada
E005	Tipos no coinciden
E006	Falta cerrar llave
E007	ID duplicado
E008	Operador aritmético incorrecto