Programming languages
Homework 4 Due date : 23.05.2019

1- Write a top-down parser fort he following grammar. Assume that the lex() function read the next token to the nextToken variable.

<stat> -> id = <expr> ;
<expr> -> <term> {(+ | - | *) <term>}
<term> -> id | (id) | (<expr>)

2- Show a complete parse, including the parse stack contents, input string, and action for the string (id + id) * id, using the following grammar and parse.

1. $E \rightarrow E + T$
2. $E \rightarrow T$
3. $T \rightarrow T * F$
4. $T \rightarrow F$
5. $F \rightarrow (E)$
6. $F \rightarrow id$

	Action						Goto		
State	id	+	*	(	)	$	E	T	F
0	S5			S4			1	2	3
1		S6				accept			
2		R2	S7		R2	R2			
3		R4	R4		R4	R4			
4	S5			S4			8	2	3
5		R6	R6		R6	R6			
6	S5			S4				9	3
7	S5			S4					10
8		S6			S11				
9		R1	S7		R1	R1			
10		R3	R3		R3	R3			
11		R5	R5		R5	R5			