

ANKARA UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF COMPUTER ENGINEERING
2022-2023 FALL SEMESTER
COM2041 PROGRAMMING LANGUAGE CONCEPTS
PROJECT-2

DEADLINE : 16.12.2022

Implement *shift-reduce algorithm* by using **C/C++** or **Python** programming language for the grammar and parsing table given below.

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

State	Action						Goto		
	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			

Your program should work as follows:

>>Enter your string:

>> id**id

>> INVALID string entered. SYNTAX ERROR!

>>Enter your string:

>> id+id

>> VALID string entered. ACCEPTED!

DO NOT FORGET THAT THIS IS NOT A TEAMWORK!