Project 2 – Parser

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Grammar

1. S -> E = E
2. S -> id
3. E -> E + id
4. E -> id

Parsing Table

	$	id	+	=	S	E
0		S3			1	2
1	ACCT					
2			S4	S5		
3	R2		R4	R4		
4		S6				
5		S8				7
6			R3	R3		
7	R1		S9			
8	R4		R4			
9		S10				
10	R3		R3			

Parsing Procedure

Code: id = id + id

Step	Stack	Token Stream	Table Entry	Action
1	0	id=id+id$	S3	push id; push 3
2	0id3	=id+id$	R4	reduce; E -> id; lookup [0, E]
3	0E2	=id+id$	S5	push =; push 5
4	0E2=5	id+id$	S8	push id; push 8
5	0E2=5id8	+id$	R4	reduce; E -> id; lookup [5, E]
6	0E2=5E7	+id$	S9	push +; push 9
7	0E2=5E7+9	id$	S10	push id; push 10
8	0E2=5E7+9id10	$	R3	reduce; E -> E + id; lookup [5, E]
9	0E2=5E7	$	R1	reduce; S -> E = E; lookup [0, S]
10	0S1	$	ACCT	