

به نام خدا

تکلیف دوم (عملی) درس کامپایلر

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بخش اول:

RULE/FF	FIRST()	FOLLOW()
StatementList	[id, while, if, ε]	[\$,]]
Statement	[if, while, id]	[if, while, id, \$,]]
Assignment	[id]	[if, while, id, \$,]]
Conditional	[if]	[if, while, id, \$,]]
Loop	[while]	[if, while, id, \$,]]
Expr	[id, number]	[;,]]
RestExpr	[+, ε]	[;,]]
Factor	[id, number]	[+, ;,]]

بخش سوم:

Recursive parser time is: 0.008094310760498047

Table parser time is: 0.008715152740478516

بخش دوم:

```
rule_StatementList_1 = "StatementList -> Statement StatementList"
rule_StatementList_2 = "StatementList ->"
rule_Statement_1 = "Statement -> Assignment"
rule_Statement_2 = "Statement -> Conditional"
rule_Statement_3 = "Statement -> Loop"
rule_Assignment_1 = "Assignment -> id = Expr ;"
rule_Conditional_1 = "Conditional -> if ( Expr ) { StatementList }
else { StatementList }"
rule_Loop_1 = "Loop -> while ( Expr ) { StatementList }"
rule_Expr_1 = "Expr -> Factor RestExpr"
rule_RestExpr_1 = "RestExpr -> + Factor RestExpr"
rule_RestExpr_2 = "RestExpr ->"
rule_Factor_1 = "Factor -> id"
rule_Factor_2 = "Factor -> number"
```

	Id	=	;	()	{	}	+	Number	If	Else	While	\$
StatementList	rule_StatementList_1						rule_StatementList_2			rule_StatementList_1		rule_StatementList_1	rule_StatementList_2
Statement	rule_Statement_1									rule_Statement_2		rule_Statement_3	
Assignment	rule_Assignment_1												
Conditional										rule_Conditional_1			
Loop												rule_Loop_1	
Expr	rule_Expr_1								rule_Expr_1				
RestExpr			rule_RestExpr_2		rule_RestExpr_2			rule_RestExpr_1					
Factor	rule_Factor_1								rule_Factor_2				