NEWGIZA UNIVERSITY

CSAI 385: Compiler Design

Course Project



- The project is a teamwork project (groups of 3 maximum).
- You can choose any programming language for the project.
- Discussion due dates:
 - o Phase 1 submission: Saturday 10/5/2025
 - Phase 2 and Phase 3 submission: Saturday 24/5/2025
 Note: Discussion Dates will be announced later
- Project grading schema:

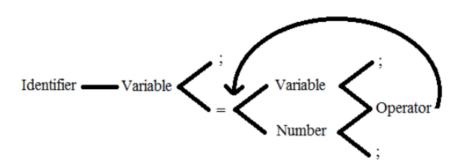
Phase 1: 5 marks
Phase 2: 10 marks
Discussion: 5 marks
Phase 3: Bonus marks

Phase 1: Scanner

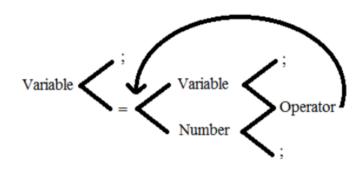
Identifiers		Reserved Words		
int	+		for	
float	-		while	
string	/	Operators	if	
double	%		do	
bool	*		return	
char	(Open Bracket	break	
)	Close Bracket	continue	
	{	Open Curly Bracket	end	
	}	Close Curly Bracket		
	,	Comma		
	;	Semicolon		
	&&	And		
		Or		
	<	Less than		
	>	Greater than		
	=	Equal		
	!	Not		
		Variables		

Phase 2: Semantic Analyzer (Checking Errors)

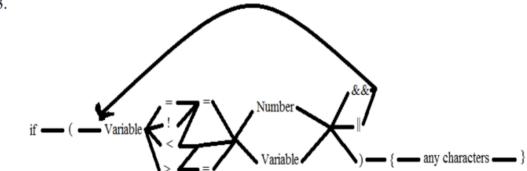
1.



2.



3.



4. For and While Loops

Phase 3: Memory

Design a memory to save variable's values.

For example

int
$$x = 0$$
;
int $y = 4$;
 $x = 2 * y$;

Memory Output

	-			
x=0				
y=4				
x=6				