Marker:

Pts. Scores			Item No.	Checkpoints as implemented and tested in the assignment
A	A	A	1.1	global symbol table is created
A	A	A	1.2	symbol table is created for a class
A	A	A	2.2	symbol table entry for a class is created in the global symbol table
A	A	A	2.3	global symbol table entry for a class contains a reference to the local symbol table for the class
A	A	A	3.1	class symbol table contains an entry for a class data member
A	A	A	3.2	function symbol table contains an entry for a function's local variable, including parameters of the function
A	A	A	4.1	symbol table is created for a free function
A	A	A	4.2	symbol table entry for a free function is created in the global symbol table
A	A	A	4.3	global symbol table entry for a free function contains a reference to the local symbol table for the free function
A	A	A	5.1	symbol table is created for a member function
A	A	A	5.2	symbol table entry for a member function is created in the symbol table
A	A	A	5.3	class symbol table entry for a member function contains a reference to the local symbol table for the member function
A	A	A	6.1	error[undeclared member function definition
A	A	A	6.2	error[undefined member function declaration
A	A	A	6.3	error[multiply-declared class
A	A	A	6.4	error[multiply-declared free function
A	A	A	6.5	error[multiply-declared data member in class
A	A	A	6.6	error[multiply-declared identifier in function
A	A	A	6.7	warning[shadowed inherited data member
A	A	A	6.8	warning[local variable in a member function shadows a data member of its class
A	A	A	6.9	warning[Overloaded free function
A	A	A	6.10	warning[Overloaded member function
A	A	A	6.11	warning[Overridden member function
A	A	A	6.12	error[Type error in assignment statement
A	A	A	6.13	error[Type error in expression
A	A	A	6.14	error[Type error in return statement
A	A	A	6.15	error[undeclared variable (check for existence of local variable)
A	A	A	6.16	error[undeclared variable (if function is member function, check in the class for member used as variable)
A	A	A	6.17	error[undeclared variable (if function is member function, and its class inherits search in all super classes' tables for member used as variable)
A	A	A	6.18	error[undeclared data member (search in class table)
A	A	A	6.19	error[undeclared data member (if class inherits from other classes, search in all super classes' tables)
A	A	A	6.20	error[undeclared member function (search in class table)
A	A	A	6.21	error[undeclared member function (if class inherits from other classes, search in all super classes' tables)
A	A	A	6.22	error[undeclared free function
A	A	A	6.23	error[undeclared class
A	A	A	6.24	error[function call with wrong number of parameters
A	A	A	6.25	error[function call with wrong type of parameters
A	A	A	6.26	error[use of array with wrong number of dimensions
A	A	A	6.27	error[Array index is not an integer
A	A	A	6.28	error[Array parameter using wrong number of dimensions
A	A	A	6.29	error[Circular class dependency (inheritance cycles)
A	A	A	6.30	error[Circular class dependency (member types cycles)
A	A	A	6.31	error["." operator used on non-class type

Notes	Time %	grade	weighted	Score	
	100%	0	0		0 **Document Section 1 - List of semantic rules implemented**
	100%	1	1	A	1.1 Clarity - all semantic rules are clearly presented and explained
	100%	2	2	A	1.2 Completeness - all semantic rules are given and explained
	100%	0	0		2 **Document Section 2 - Design description/diagrams (Section 2.1 and 2.2)**
	100%	2	2	A	2.1 Description/diagram of the overall structure of the solution and the roles of the individual components used in the applied solution (document Section 2.1)
	100%	2	2	A	2.2 Description of the purpose of each semantic checking phase involved in the implementation, for each phase, mapping of semantic actions to AST nodes, along with a description of the effect/role of each semantic action (document Section 2.2)
	100%	0	0		3 **Document Section 3 - Description of tools/libraries/techniques used in the analysis/implementation. Description of other tools that might have been used, justification of why the chosen tools were selected**
	100%	1	1	A	3.1 All tools used in the analysis/implementation are mentioned.
	100%	1	1	A	3.2 Justification for all tools.
	100%	20	15		4 **Correct implementation of a symbol table generator and semantic checker**
	100%	0.5	0.5	A	4.1.1 global symbol table is created
	100%	0.5	0.5	A	4.2.1 symbol table is created for a class
	100%	0.25	0.25	A	4.2.2 symbol table entry for a class is created in the global symbol table
	100%	0.25	0.25	A	4.2.3 global symbol table entry for a class contains a reference to the local symbol table for the class
	100%	0.25	0.25	A	4.3.1 class symbol table contains an entry for a class data member
	100%	0.25	0.25	A	4.3.2 function symbol table contains an entry for a function's local variable, including parameters of the function
	100%	0.5	0.5	A	4.4.1 symbol table is created for a free function
	100%	0.25	0.25	A	4.4.2 symbol table entry for a free function is created in the global symbol table
	100%	0.25	0.25	A	4.4.3 global symbol table entry for a free function contains a reference to the local symbol table for the free function
	100%	0.5	0.5	A	4.5.1 symbol table is created for a member function
	100%	0.25	0.25	A	4.5.2 symbol table entry for a member function is created in the symbol table
	100%	0.25	0.25	A	4.5.3 class symbol table entry for a member function contains a reference to the local symbol table for the member function
	100%	0.5	0.5	A	4.6.1 error[undeclared member function definition
	100%	0.5	0.5	A	4.6.2 error[undefined member function declaration
	100%	0.5	0.5	A	4.6.3 error[multiply-declared class
	100%	0.5	0.5	A	4.6.4 error[multiply-declared free function
	100%	0.5	0.5	A	4.6.5 error[multiply-declared data member in class
	100%	0.5	0.5	A	4.6.6 error[multiply-declared identifier in function
	100%	0.5	0.5	A	4.6.7 warning[shadowed inherited data member
	100%	0.5	0.5	A	4.6.8 warning[local variable in a member function shadows a data member of its class
	100%	0.5	0.5	A	4.6.9 warning[Overloaded free function
	100%	0.5	0.5	A	4.6.10 warning[Overloaded member function
	100%	0.5	0.5	A	4.6.11 warning[Overridden member function
	100%	0.5	0.5	A	4.6.12 error[Type error in assignment statement
	100%	0.25	0.25	A	4.6.13 error[Type error in expression
	100%	0.25	0.25	A	4.6.14 error[Type error in return statement
	100%	0.25	0.25	A	4.6.15 error[undeclared variable (check for existence of local variable)
	100%	0.25	0.25	A	4.6.16 error[undeclared variable (if function is member function, check in the class for member used as variable)
	100%	0.25	0.25	A	4.6.17 error[undeclared variable (if function is member function, and its class inherits search in all super classes' tables for member used as variable)
	100%	0.25	0.25	A	4.6.18 error[undeclared data member (search in class table)
	100%	0.25	0.25	A	4.6.19 error[undeclared data member (if class inherits from other classes, search in all super classes' tables)
	100%	0.25	0.25	A	4.6.20 error[undeclared member function (search in class table)
	100%	0.25	0.25	A	4.6.21 error[undeclared member function (if class inherits from other classes, search in all super classes' tables)
	100%	0.5	0.5	A	4.6.22 error[undeclared free function
	100%	0.5	0.5	A	4.6.23 error[undeclared class
	100%	0.25	0.25	A	4.6.24 error[function call with wrong number of parameters
	100%	0.25	0.25	A	4.6.25 error[function call with wrong type of parameters
	100%	0.25	0.25	A	4.6.26 error[use of array with wrong number of dimensions
	100%	0.25	0.25	A	4.6.27 error[Array index is not an integer
	100%	0.25	0.25	A	4.6.28 error[Array parameter using wrong number of dimensions
	100%	0.25	0.25	A	4.6.29 error[Circular class dependency (inheritance cycles)
	100%	0.25	0.25	A	4.6.30 error[Circular class dependency (member types cycles)
	100%	0.25	0.25	A	4.6.31 error["." operator used on non-class type
	100%	0	0		5 **Correctness - error messages (error description and location) in a file**
	100%	1	1	A	5.1 Clarity - error messages include a line number where the error was found
	100%	1	1	A	5.2 Clarity - error messages describe what specific kind of error was found
	100%	1	1	A	5.3 Correctness - errors are correctly identified and eventually correct code is not reported as errors.
	100%	1	1	A	5.4 Completeness - all errors are reported - ideal possible when error recovery is implemented.
	100%	0	0		6 **Output - outputfileandast.ast file: Output of a representation of the symbol tables in a text file**
	100%	1	1	A	6.1 Clarity - tables are readable
	100%	1	1	A	6.2 Correctness - correct information is shown in the tables with regards to the compiled program
	100%	2	2	A	6.3 Completeness - all tables are generated (global, classes, functions), and appropriate records are in the correct tables.
	100%	10	10		7 **Test cases - completeness of testing (in addition to the provided files)**
	100%	0.5	0.5	A	7.1.1 global symbol table is created
	100%	0.5	0.5	A	7.2.1 symbol table is created for a class.
	100%	0.25	0.25	A	7.2.2 symbol table entry for a class is created in the global symbol table
	100%	0.25	0.25	A	7.2.3 global symbol table entry for a class contains a reference to the local symbol table for the class
	100%	0.25	0.25	A	7.3.1 class symbol table contains an entry for a class data member
	100%	0.25	0.25	A	7.3.2 function symbol table contains an entry for a function's local variable, including parameters of the function
	100%	0.25	0.25	A	7.4.1 symbol table is created for a free function
	100%	0.25	0.25	A	7.4.2 symbol table entry for a free function is created in the global symbol table
	100%	0.25	0.25	A	7.4.3 global symbol table entry for a free function contains a reference to the local symbol table for the free function
	100%	0.5	0.5	A	7.5.1 symbol table is created for a member function
	100%	0.25	0.25	A	7.5.2 symbol table entry for a member function is created in the symbol table
	100%	0.25	0.25	A	7.5.3 class symbol table entry for a member function contains a reference to the local symbol table for the member function
	100%	0.5	0.5	A	7.6.1 error[undeclared member function definition
	100%	0.5	0.5	A	7.6.2 error[undefined member function declaration
	100%	0.5	0.5	A	7.6.3 error[multiply-declared class
	100%	0.5	0.5	A	7.6.4 error[multiply-declared free function
	100%	0.5	0.5	A	7.6.5 error[multiply-declared data member in class
	100%	0.5	0.5	A	7.6.6 error[multiply-declared identifier in function
	100%	0.5	0.5	A	7.6.7 warning[shadowed inherited data member
	100%	0.5	0.5	A	7.6.8 warning[local variable in a member function shadows a data member of its class
	100%	0.5	0.5	A	7.6.9 warning[Overloaded free function
	100%	0.5	0.5	A	7.6.10 warning[Overloaded member function
	100%	0.5	0.5	A	7.6.11 warning[Overridden member function
	100%	0.5	0.5	A	7.6.12 error[Type error in assignment statement
	100%	0.25	0.25	A	7.6.13 error[Type error in expression
	100%	0.25	0.25	A	7.6.14 error[Type error in return statement
	100%	0.25	0.25	A	7.6.15 error[undeclared variable (check for existence of local variable)
	100%	0.25	0.25	A	7.6.16 error[undeclared variable (if function is member function, check in the class for member used as variable)
	100%	0.25	0.25	A	7.6.17 error[undeclared variable (if function is member function, and its class inherits search in all super classes' tables for member used as variable)
	100%	0.25	0.25	A	7.6.18 error[undeclared data member (search in class table)
	100%	0.25	0.25	A	7.6.19 error[undeclared data member (if class inherits from other classes, search in all super classes' tables)
	100%	0.25	0.25	A	7.6.20 error[undeclared member function (search in class table)
	100%	0.25	0.25	A	7.6.21 error[undeclared member function (if class inherits from other classes, search in all super classes' tables)
	100%	0.5	0.5	A	7.6.22 error[undeclared free function
	100%	0.5	0.5	A	7.6.23 error[undeclared class
	100%	0.25	0.25	A	7.6.24 error[function call with wrong number of parameters
	100%	0.25	0.25	A	7.6.25 error[function call with wrong type of parameters
	100%	0.25	0.25	A	7.6.26 error[use of array with wrong number of dimensions
	100%	0.25	0.25	A	7.6.27 error[Array index is not an integer
	100%	0.25	0.25	A	7.6.28 error[Array parameter using wrong number of dimensions
	100%	0.25	0.25	A	7.6.29 error[Circular class dependency (inheritance cycles)
	100%	0.25	0.25	A	7.6.30 error[Circular class dependency (member types cycles)
	100%	0.25	0.25	A	7.6.31 error["." operator used on non-class type
	100%	0	0		8 **Successful compiler use of tools/libraries/techniques in the analysis/implementation.**
	100%	1	1	A	8.1 The program never crashes or throws exceptions
	100%	2	2	A	8.2 Tools presented in the labs are used appropriately, or comparable tools are used appropriately

Marker instructions

Enter values only in the red cells. Everything else is calculated automatically
In Column D, enter either A, B, C, or F for each marking element
Enter notes in column A. These notes will be then automatically uploaded on moodle as feedback to the students.

Designer instructions

When you add lines, add them only in the middle of the area, or else the calculation is going to be wrong
To add lines, add a new row, then copy into it one of the existing rows.

Marking Criteria	max	grade
Document Section 1 - List of semantic rules implemented	2	2.00
Document Section 2 - Design description/diagrams (Section 2.1 and 2.2)	4	4.00
Document Section 3 - Description of tools/libraries/techniques used in the analysis/implementation	2	2.00
Correct implementation of a symbol table generator and semantic checker	30	30.00
Output - outputfileandast.ast file: Output of a representation of the symbol tables in a text file	4	4.00
Test cases - completeness of testing (in addition to the provided files)	10	10.00
Successful correct use of tools/libraries/techniques in the analysis/implementation.	3	3.00
Total	55	55.00

Errors

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