CIS*4650 (Winter 2025) - Marking Scheme for Checkpoint Two

Group	Questions	Comments
	Documentation (20)	
	Symbol Tables: (35) 1. Hash tables 2. Simple vars (int, bool, void) 3. Array variables 4. Functions/Blocks -entry and exit 5. Errors: undefined/redefined	
	Type-Checking: (40) 1. array range/index are int 2. two sides of an assignment 3. two sides of an operation 4. func calls and return exps 5. test conditions are int/bool	
	Command line flags "-a" and "-s" (5 marks)	

Symbol Ttable: 1. Hash table 2. Simple variables 3. Array variables 4. Functions/Blocks - entry/exit 5. Error: undefined/redefined vars	- Show key-value pairs in different scopes for different kinds of declarations: int x; bool bbb[10]; void foo(void) { }; - Show symbol table at entry/exit for gcd.cm - Use "z" without a declaration and declare "y" twice within the same scope.

Type-Checking:
1. array index must be int.
2. check two sides of an assignment.
3. check operands of binary/unary. operations.
4. check function defs/calls in terms of parameters and return types.
5. check test conditions for if- and while-statements (either int or bool).
 	
5. void main(void) {
int x;
if(x) output(foo());
if(foo()) output(x, foo());
}
	1. void main(void) {
	int a[2]; int x;
	a[x] = 1;
	a[foo()] = 2; // assuming void foo()
	}
	2. void main(void) {
	int x;
	x = foo();
	}
	3. int fun(int fff) {
	int x; int y;
	x = x * 2 + 1;
	y = x + foo();
	}
	4. void funtwo(void) {
	int x;
	x = 2;
	return x;
	}