CIS*4650 (Winter 2024) - 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).
 	
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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;
	}