Example code :-

1. note> Symbol table test program

2. global_x = 50;

3. message = "Result: ";

4.

5. note> Start of loop Scope (Block 1)

6. loop i in 1..3 {

7. local-val = i * 10;

8. global_x = global_x + local_val;

9. }

Semantic Error Example

if code contained : check
message > 5 {...}

Error: Type mismatch.
Cannot compare
STRING with NUMBER
using relational
operator

Name	Type	Scope level	value/offset
global_x	NUMBER	0 (Global)	50
message	STRING	0 (Global)	"Result: "
i	NUMBER	1 (loop block)	1
local-val	NUMBER	1 (loop block)	10

Note:

* local-val is declared inside loop. when loop ends (Right brace "}"), then the local-val row is popped/removed from table.

* global_x is in global Scope (level 0). it is accessible inside the loop. The compiler resolves this by checking level 1 first, then level 0.