**17.Write a Prolog Program to Sum the Integers from 1 to n**

**Program:**

sum(0,0). % base case: sum of 0 is 0

sum(N,Sum) :- N > 0, % recursive case: N is positive N1 is N - 1, % decrement N

sum(N1,Sum1), % recursively compute sum of 1 to N-1

Sum is Sum1 + N. % add N to the sum of 1 to N-1 ?- sum(5,Sum).

Sum = 15.

?- sum(10,Sum).

**Output:**

Sum = 55.