CYCLOMATIC COMPLEXITY

What is Cyclomatic Complexity?

Cyclomatic complexity is a source code complexity measurement that is being correlated to a number of coding errors. It is calculated by developing a Control Flow Graph of the code that measures the number of linearly-independent paths through a program module.

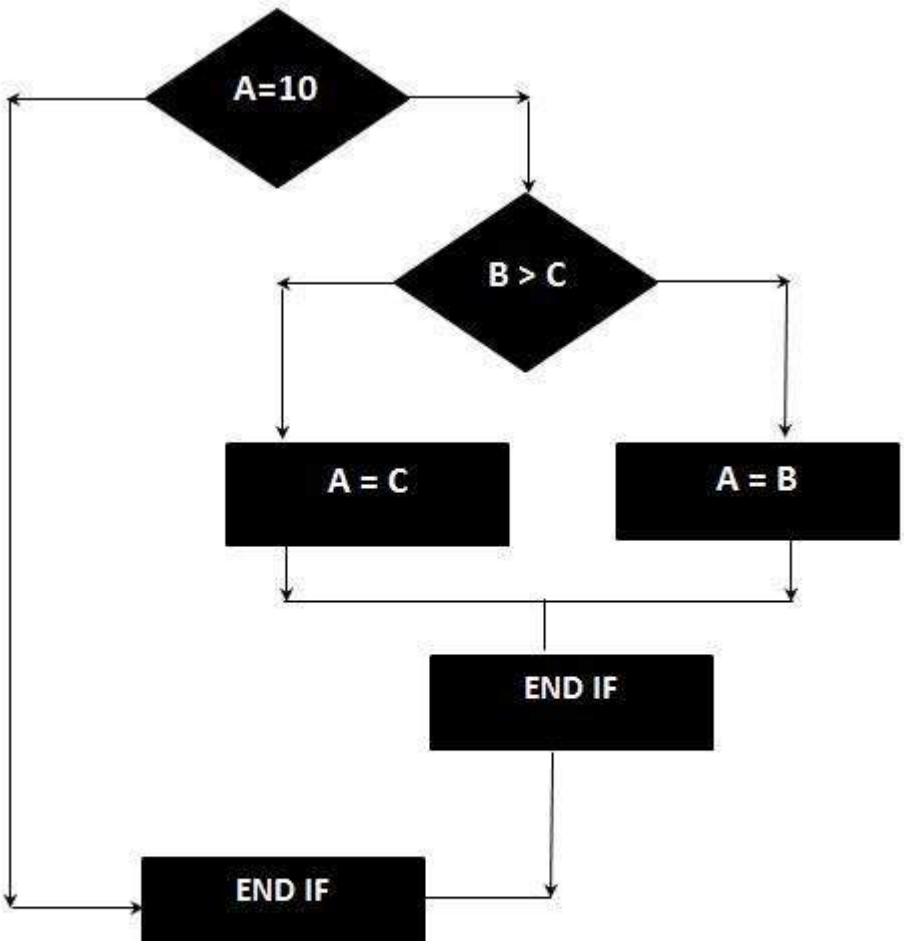
Lower the Program's cyclomatic complexity, lower the risk to modify and easier to understand. It can be represented using the below formula:

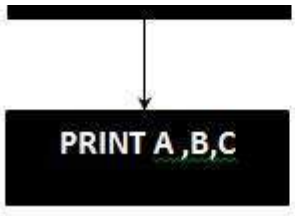
```
Cyclomatic complexity = E - N + P
where,
  E = number of edges in the flow graph.
  N = number of nodes in the flow graph.
  P = number of nodes that have exit points
```

Example :

```
IF A = 10 THEN
 IF B > C THEN
   A = B
 ELSE
   A = C
 ENDIF
ENDIF
Print A
Print B
Print C
```

FlowGraph:





The Cyclomatic complexity is calculated using the above control flow diagram that shows seven nodes*shapes* and eight edges *lines*, hence the cyclomatic complexity is 8 - 7 + 2 = 3