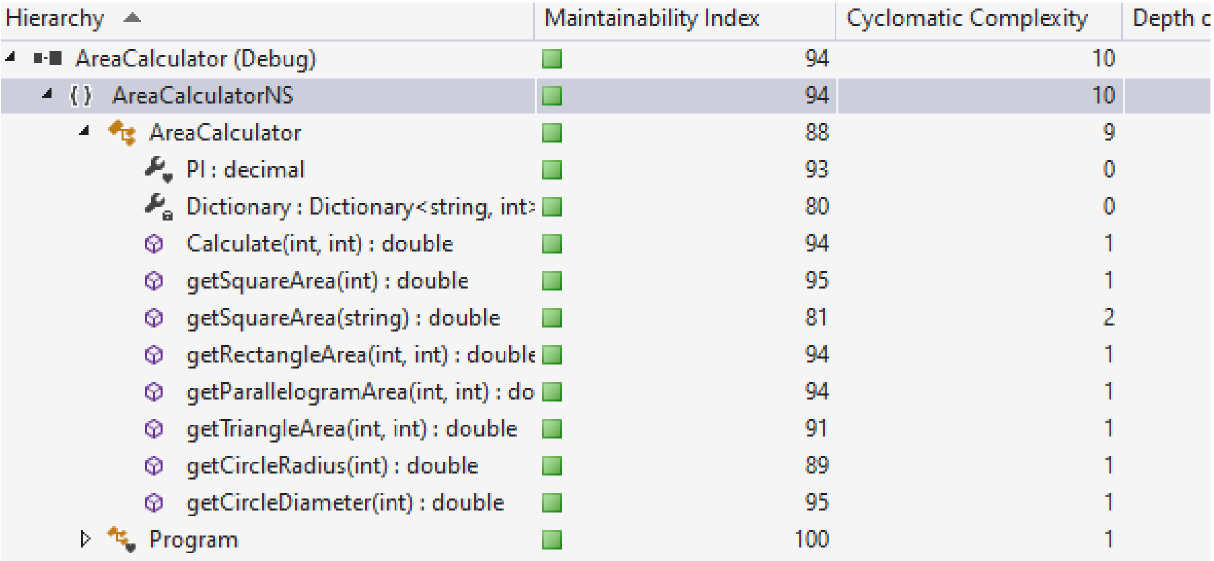
Powell - AreaCalculator Summary

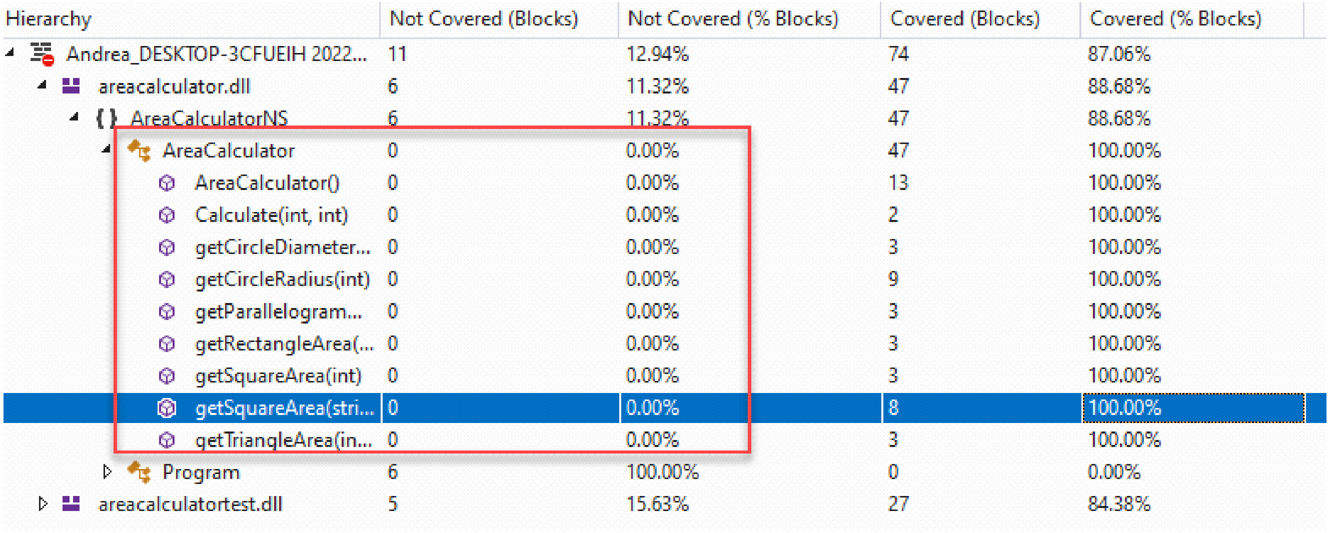
Monday, April 25, 2022 2:57 AM

Below are my initial complexity findings. getSquareArea(string) shows a complexity of 2, while the other methods are 1. I chose to look at getSquareArea(string) and getCircleRadius(int) which showed the lower maintainability index.



Hierarchy	Maintainability Index	Cyclomatic Complexity	Depth c
AreaCalculator (Debug)	🟩 94	10	
{ } AreaCalculatorNS	🟩 94	10	
AreaCalculator	🟩 88	9	
PI : decimal	🟩 93	0	
Dictionary : Dictionary<string, int>	🟩 80	0	
Calculate(int, int) : double	🟩 94	1	
getSquareArea(int) : double	🟩 95	1	
getSquareArea(string) : double	🟩 81	2	
getRectangleArea(int, int) : double	🟩 94	1	
getParallelogramArea(int, int) : do	🟩 94	1	
getTriangleArea(int, int) : double	🟩 91	1	
getCircleRadius(int) : double	🟩 89	1	
getCircleDiameter(int) : double	🟩 95	1	
Program	🟩 100	1	

My initial coverage results showed 0% coverage - which was because I had forgotten that test case. Update Below:



Hierarchy	Not Covered (Blocks)	Not Covered (% Blocks)	Covered (Blocks)	Covered (% Blocks)
Andrea_DESKTOP-3CFUEIH 2022...	11	12.94%	74	87.06%
areacalculator.dll	6	11.32%	47	88.68%
{ } AreaCalculatorNS	6	11.32%	47	88.68%
AreaCalculator	0	0.00%	47	100.00%
AreaCalculator()	0	0.00%	13	100.00%
Calculate(int, int)	0	0.00%	2	100.00%
getCircleDiameter...	0	0.00%	3	100.00%
getCircleRadius(int)	0	0.00%	9	100.00%
getParallelogram...	0	0.00%	3	100.00%
getRectangleArea(...	0	0.00%	3	100.00%
getSquareArea(int)	0	0.00%	3	100.00%
getSquareArea(stri...	0	0.00%	8	100.00%
getTriangleArea(in...	0	0.00%	3	100.00%
Program	6	100.00%	0	0.00%
areacalculatortest.dll	5	15.63%	27	84.38%

It took me several tries to get all the test pieces wired up and working together, mostly with confusion over namespaces when accessing functions and parameters. This is the first time I have worked with Unit Testing or a solution with multiple projects and chased my tail before I got my mind wrapped around things. I don't think there was any one thing, it was just the combination of all the things. I did have low complexity on each method and 100% coverage on methods without changes to initial AreaCalculator class, so I felt good with that.