

1.

Going by the name, the intention of the unit test is to test that the selection sort algorithm correctly sorts an array of Items containing negative numbers. That said, there is no assertion statement testing that the array of Items was correctly sorted.

2.

Edge Coverage (a.k.a. Branch Coverage) is a measurement of the branches that were tested through unit tests (often whitebox tests). This means that tests need to be written that cover all diverging paths that emerge in your code through conditional statements and loops.

3.

Complete Node Coverage for a method means that every functional line of code within a method is traversed. If you have complete Edge Coverage for a method, then you also have complete Node Coverage for that method.

4.

Examples of Code Review techniques include Pair Programming and Walkthroughs. Pair Programming is the practice of two developers working on one computer on a part of the project. One developer is the driver who is completing the task and the other developer is the observer who is monitoring the progress made by the driver and offering advice. This process is good for training new developers and for continuously ensuring good design quality. A Walkthrough, on the other hand, is the process of one developer presenting the code they authored to other developers in the project while describing how the code works and receiving feedback from the other developers. This process is good for the author to better understand what needs to be done to complete a task and can help in overcoming obstacles the author encounters.