During the testing process, multiple types and techniques can be used. Two different types are static testing and dynamic testing. Each type should be used for its own purposes, and each one has its pros and cons. Static and dynamic should all be done during the appropriate time during the SDLC. Of the two, static testing is the reviewing phase of testing and is done during the early stages of the SDLC. It is during this type of test that we validate not just code, but any documents and items related are gone through for errors. This could be vital for a project since this testing phase is where incorrect data could be found. The most important fact to take from static testing is the fact that the project is being tested without executing any code. Another important part of this testing is the control flow analysis. This can be done using a continuous integration tool.

Dynamic testing focuses on a different aspect of the testing phase. This type of testing executes the program's code. This type of testing is used to validate any behavioral problems with a program. This allows us to go in and fix any coding mistakes that caused the functionality issues. Static testing is usually done before this type of testing because any issues found at this point take a considerable amount of time to fix and are quite costly. This testing also is used as the phase to detect any defects and can be conducted at many different levels, with different percentages of cases tested.

Over all both types of testing should be done on a project. Static work as a pretest that will help save time and money. While after this round of testing a more in-depth executable dynamic test can be done. This will be used to clean up any remaining defects that are found.

**Citations**

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