**1-3 Journal: The Role of Testing in the Software Development Life Cycle (SDLC)**

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**SDLC Testing Stage**

During the testing stage of SDLC, the software is thoroughly examined for any bugs and other defects that need to be addressed. The testing phase explores the different components of the system to reveal defects by exerting different types of methods such as functional testing, non-functional testing, white-box testing, and resting related to change. Once a test plan and test criteria are set, the testers will execute the static and dynamic testing and record all results, which may include defects, effects, and root causes if the test fails. Once the data is collected, the code will be returned to the developers to fix the issue and return it to the testing station. If all tests pass and become acceptable, the information will be archived for reuse in future projects.

**Importance of Testing in SDLC**

Without the testing stage of SDLC, errors or mistakes can lead to defects, resulting in software failure. The consequences of a system failure are loss of money, time, reputation, and possibly death or injury. Unfortunately, testing cannot determine all possible errors in software, but testing can reveal why errors and mistakes were made and how to eliminate the problem. When finding errors within the system, testers also ensure requirements are met to increase the possibility of customer satisfaction with the system’s overall quality.

**Exceptions in Testing Stages**

Exceptions in which the testing stage would occur earlier or later than it typically would in SDLC would be to help reduce costs and errors within the project. When testing the components sooner, it can help detect requirements that are missing or determine features that are not working as expected. However, if the testing stage is postponed to a later time, the component must be completed, and other parts must be fulfilled before testing. Implementing a test while the details are incomplete would result in failing because the product is insufficient to examine. Sometimes, during these exceptions, it is more logical to wait to test everything at once to ensure all features are functional.