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

The testing stage of the Software Development Life Cycle (SDLC) is the stage where software is evaluated to ensure that it works as intended and meets the requirements. During this stage, developers and testers look for errors, bugs, or other issues in the program and verify that the system meets functional and non-functional requirements. These developers and testers use a variety of testing strategies such as unit testing, integration testing, system testing, and user acceptance testing.

Testing is vital because it helps ensure software quality and reliability before deploying it to the public. By identifying and fixing issues early on, testing reduces the risk of failures that could lead to expensive fixes and poor user experience. It also provides confidence to both the development team and stakeholders that the product is ready to be deployed. Testing is also crucial for security, performance, and scalability. A program might function normally when a few people use the app at once, but if the software is not tested properly, it could fail under heavy traffic, unexpected inputs, or even malicious activity.

In most traditional SDLC models, testing is performed after the coding or development phase, however it’s important to note that testing should be considered throughout the entire software development lifecycle. For instance, a developer may move the testing stage earlier on in the lifecycle to lower costs and catch errors before they grow into failures. Developers may also move the testing stage later in the lifecycle if they have to make revisions to the code. By adjusting the timing of testing, developers can maintain software quality and reliability while adapting to project requirement.

**Works Cited**

PFLB. (2023, February 10). Importance of SDLC in software testing, system and software development life cycle. <https://pflb.us/blog/software-testing-importance-sdlc/>

Talreja, A. (2024, July 18). Testing phase in SDLC: Ensuring Quality and Reliability – Nextra. Agile and Beyond: Explore the World of Agile Frameworks. <https://teachingagile.com/sdlc/testing>