1-3 Journal: The Role of Testing in the SDLC

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Testing is an essential part of the Software Development Life Cycle (SDLC). During the testing phase of the SDLC there is a systematic and methodical process that is used to examine and judge whether or not the software meets the desired requirements. This may include looking for defects in the product or checking to see if the created software meets either board expectations or the client’s demands. In order to achieve this goal there are different types of tests that are conducted. These tests are generally conducted in stages called test levels and they include component testing, integration testing, system testing, and acceptance testing. Component or unit testing involves testing the individual blocks of code in isolation before they are integrated into the system as a whole. During the integration testing these blocks of code are put together and tested to see if they interact well with each other. During system testing the code is checked for functionality using test cases that are more representative of the live operating conditions. Acceptance testing is conducted independently of the rest of the tests and its main purpose is to show that the system is meeting the customer’s requirements.

The testing stage is vital to a successful SDLC because proper testing can help find the bugs and defects in the product before it is released to the public. This means that without proper testing you may end up releasing a product full of defects which can lead to negative reactions from the end user and maybe even the failure of that product. Additionally, it is also important to have frequent and early testing as it can help find issues in the product much earlier which can save the company time and money in the long run. This is because fixing issues with the software as it is being written is a lot easier and less costly than revamping the whole software later on to fix bugs and glitches.

One exception of when software testing might occur earlier than scheduled may be due to an unexpected bug during development that is so disruptive in nature that it prevents further progress from occurring. In cases like these, the team may need to refocus their attention from their current tasks to figuring out the root cause of the bug and how to fix it. Another example may occur when end users or hackers discover a security breach that reveals sensitive information like banking information to the wrong users. In cases like these fixing those issues becomes a top priority for the company and proper testing is required to ensure that those vulnerabilities are fixed before too much damage is done. Additional testing may also be required to ensure that similar methods of exposing these vulnerabilities are also dealt with as part of a prophylactic measure.