During the testing phase of the SDLC, we find out if we meet all the requirements. Each requirement is gone through and validated using test cases. The test cases are built based on not only the client's requirements but any functional requirements that are needed as well. These validations are not only to see if it runs properly but also to validate that any output is correct. If there is any input, a series of different cases will be tested to validate that all outcomes are the desired outcome for that given input. This allows us to find any potential bugs and fix any problems afterward.

Testing is important in any project that requires success. In SDLC testing is vital. Without the test phase, we could potentially wait until the end of the project to test, which contradicts the point of SDLC. SDLC follows a cycle that runs multiple times. During each cycle, there is its testing phase. This allows each cycle to be looked over carefully and fix all issues that have already been found. If this was not done, then there is a potential that some problems would cause chain reactions. This means that to fix the issue, multiple things may need to be adjusted. This could be too time-consuming and too costly.

There could be many different reasons that could cause testing to occur at different times than planned using SDLC. One of the main reasons would be a last-minute change in the client's requests for the project. If they need a change, that change will require early testing. You don’t want to create something new and assume all is good. This could lead to future bugs. Another thing that could cause a change in when testing happens is if the developer has technical problems. Say the developing company gets hacked. All the projects they are working on could be at risk. When everything would be backed up, but once things are cleared testing will be required to validate that everything within the project is where it should be and has not changed during the incident.

**Citations**

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