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Software Development I

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Software Development Life Cycle

The software development life cycle (SDLC) is composed of six essential components: analyzation, checking requirements, designing, implementation, testing, and conducting maintenance. While these steps are all required to produce a functional program, there are different approaches that can be taken to execute the steps of the SDLC. The two most common approaches are the "waterfall" method and the "agile development" approach, and both of these methods have their own unique benefits.

The "Waterfall" method is the most straightforward approach to the SDLC. This method involves doing each step of the life cycle sequentially. For example, first the problem is analyzed, then the requirements are checked and the design process begins, then implementation and testing for bugs occurs, and lastly the program is maintained. While this method seems simple, it can sometimes make larger projects more difficult to accomplish. Many developers will use the "Agile Development" method to efficiently finish the task. This method involves breaking the project into several steps. For each step, analyzation, checking requirements, designing, implementation, testing, and conducting maintenance all occur. Since each the work is being done continuously on the project, it is easier to test the software for bugs and it is easier to gauge how much longer the project will take. This method allows consumers to use the product

as each part is released to the public. They will not be using a finished product until the last stages of development are done; however, the software will be available for use, piece by piece.

While programmers use different methods to complete a programming project, the SDLC is the backbone of accomplishing this task. The waterfall method is a sequential method which allows programmers to be sure that they are not missing any of the requirements and can efficiently accomplish a programming task. On the contrary, the “agile development” method is used by programmers to complete the task in segments — each segment being released once completed. Both of the methods have their own unique benefits, but it is essential that one of the methods is chosen for use before the development process begins.