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Comparison of Agile Software Development

When it comes to the Development stages in the book, *Introduction to Java Programming*, there are some very similar and different aspects compared to the approach of Agile Software Development.   Now let's dive in further to find out what makes each one unique.

According to *Introduction to Java Programming*, "the software development life is a multistage life cycle" (Liang 59), which includes the following procedure Requirement Specification, System Analysis, System Design, Implementation, Testing, Deployment, as well as Maintenance.   Requirement Specification is simply understanding what problems the software will be addressing, and to document what the system needs to do.   System Design is the process of creating the outline of the software, as well as identifying what input data is needed to create the output. (In other words, working backwards to find the optimal solution). Implementation oversees translating the system into programs, by separating the programs for each component to make them work cohesively. Now comes the fun part; Testing.   Which involves in ensuring that the code not only meets the specifications, but also exterminating any bugs that lie within.   Then when it is time to share the program, it is deployed. Now based on the person in charge of this next part, may find it fun or boring. It is called maintenance, and consists of updating and improving the product. As it needs to continue to perform, evolve, and stay clean of any potential bugs down the road. Now let's look at what Agile Software Development is.

Based on the information provided by VersionOne, "agile development is an umbrella term for several iterative and incremental software development methodologies" (VersionOne 1). With help from the Whitepaper pdf file, and the Agile Development Poster, we can discuss the outline of Agile.   Before looking at the process, there are three layers of hierarchy that are put into place to ensure that work is completed. Starting at the top is the Portfolio Management, then comes the Program Management, and finally the Project Management. The Portfolio Management team, creates and reviews the strategy. Then it is up to the Program Management to see that there is a good method to implement coordination between the sub-teams and management.   Finally, it falls upon the Project Management team to execute the orders from above, and to create the masterpiece. The structure of Agile Development is as follows; Strategy, Release, Iteration, Daily, Continuous, and the product (working software). During the Strategy portion, is when others share their visions, gain funding, and pass around goals. The release consists of the backlog, when they would like to kick it out the door, and what should be included in the release plan. Iteration is simply just the time to contemplate and look back on what should have been done, and what can be done in the future. Daily is just another term for when they meet with each other on frequent basis to encourage the structure.   It's the basic to know that after you make some messes, you must clean it up. Well that is what continuous means in agile development, as they are cleaning up the code to make it simpler. This past procedure is super important when trying to make future developments, as it would be much

harder on the coder, if the code was a giant mess. Then after all of this is done, the product becomes a working software, where it is up and running.

Some similarities are, that they share the vision of providing continuous feedback, and incorporating iteration to embellish and deliver a software system.   Also, the fact that it encourages others to collaborate, perform quickly and efficiently.   However, there are some differences between the two.   The typical Structured Development process also known as Waterfall model, and is considered to flow in a sequential way. On the other hand, the method of Agile, allows wiggle room for it, "follows a linear sequential approach while providing flexibility for changing project requirements, as they occur" (FlatWorld 1).   This allows developers / team members to be able to revisit previous steps. The usefulness for the flexibility allows is increasing the Agile's popularity. Per Flat World Solutions, "Agile methodology is now being increasingly adopted by companies worldwide for software development" (

<div align="center">Work Cited</div>

https://www.versionone.com/agile-101/
https://blog.flatworldsolutions.com/10-differences-agile-waterfall-methodology/