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One Page Blog Post

Software Development Methods

There are many different methods to get from point A to point B in software development. From the Waterfall Method to more modern based approaches like AGILE, building out complex pieces of software can be made more simple by approaching the task through these different methods. This blog post will cover some of the methods software developers use.

The Waterfall Method is a common way companies structure their software development lifecycles. The first step is developing specification requirements. This involves the bare necessities of what this piece of software needs to accomplish. The next step is the design stage. This involves fleshing out the details laid out in the software requirement specifications by building several other documents and diagrams such as user case diagrams, robustness diagrams, and sequence diagrams. From there we hit Implementation, Verification, and Maintenance. The Waterfall Method is commonly used as it is easy to understand for developers. The problems with this approach however are that each stage of the Waterfall Method generally cannot be revisited unless an error occurs. This doesn’t allow for the flexibility and adaptability that we so commonly need in this rapidly changing field.

Another method used by developers is the Rapid Prototyping Method. This method involves making “quick and dirty” mockups or prototypes of software that the client can then visually inspect and get a feel for, in order to provide good feedback. The advantages of this method is that things aren’t so rigid when designing the overall system and the client can see the progress that they want. Some disadvantages of this method are the lost hours of work that these “throw away” prototypes can end up taking away.

Finally, perhaps the most modern method to develop software is the AGILE methodology. Similar to the Spiral Method, development is broken down into cycles or sprints. Within each sprint, miniature versions of the Waterfall method’s core facets can be found. This takes the easy to understand nature of the Waterfall Method but combines it with the freedom to adapt to unforeseen changes and continuously improve and test features as they’re being created.

As shown, there are many different methods to develop software, each with their own pros and cons. As time goes on, newer and more efficient methods of structuring development will emerge and make older ones obsolete, similar to how newer technologies and programming languages evolve to rise to the needs of the ever changing software landscape.