

Systems development life cycle



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Many companies involved in software development use the Systems Development Life Cycle (SDLC) to direct and guide them through the process. The cycle ensures that the Project Manager adheres to the step-by-step process of software development (Wasson, 2006). The upcoming project managers need to take into consideration several aspects to be able to achieve success in the market. The software they develop must be user-friendly, and its interface should be designed and developed in a way that the customers or end users of the product find it easy to learn and work with without difficulty.

The project managers should have a full understanding of the market needs. This process will involve taking a field study of the existing market and exploring the available future market needs. Studying the market is based on many assumptions - the experts prefer to work with substantial assumptions so that they can develop a successful product (Rosenblatt & Shelly, 2011). The product with the customer specifications will succeed in the market.

After the market research, the concerns should be streamlined to develop a cost-effective system. The system should be superior to those of the competitors' and should mostly rely on the customers' requests and suggestions. The intangible system is later developed and tested in a virtual environment before it is handed over to the development team. The development team later adopts one of the software development methodologies, develops the proposed system and hands it over to the customers for use.

The system development life cycle is very useful to the project managers. It helps the project managers in adhering to the set timeline and offers room for error correction. During the testing process, the end users may propose additional specifications that will make the system user-friendly, while the project managers may also identify shortcomings that may have occurred during system development. Therefore, the cycle gives the project managers room for error correction (Wasson, 2006).

Ever since Russell Kay's article in 2002, nothing has changed concerning system development life cycle. In his article, the SDLC serves the same purposes as in today's projects. The SDLC has the primary duty to facilitate creation of products in an orderly manner and artistic nature. The SDLC pins the system developers to the set time plan. In both cases, the system development life cycle ensures that all steps are followed procedurally, thus reducing errors and system vulnerability.

There have been cases where the coding team is different from the implementing team. This has resulted in a system that rarely meets the customers' demands. In most cases, the implementing team overlooks or makes adjustments to the system that affects the normal running of the system. Therefore, it is highly recommended that one team runs the project to conclusion. This way implementation errors are minimized and consistency of the system is maintained.

The SDLC is supposed to maintain order and a step-by-step accounting of the new system that is being developed. This will see all the life cycle followed to the letter, and this brings to the market a system that is easy to debug, run

and maintain. The customers' high expectations are given utmost priority, as the system should be customer-centered. The system development life cycle connects the development cycles and ensures that they work as a unit for the system to be successful (Kennaley, 2010).

The current technological advancements have seen a shift in research trends. Most of the research is done online, and this saves time and resources of having to walk from one place to another in search of project resources. Thanks to the Internet, a project manager can buy software requirements online, seek advice and directions from e-learning and gets to share ideas and information with other project managers. If properly utilized, the Internet can cut both the project costs and duration by half, because nowadays about all the help can be found online.

Audio and video materials available online save most programmers the hustle of having to look for books for reference. The fact that we have a large number of freelance programmers online makes me believe that I can solely depend on the Internet to provide all the materials I need for my project. The information contained in hard copy materials has been digitized and it can all be found online. All one needs is a PC that is connected to the Internet.

Generations have changed, and increasingly more people are working online from their homes now. This has been enabled by the ease of access of the networked infrastructure.

Even with well laid down Internet infrastructure, there are steps that cannot be entrusted over the Internet and which require manual experiences.

System analysis is successful only if it is carried out through comparison with

another system. Several system analysis approaches are in operation. For a computer--based system, the waterfall model is the most preferred one. In it, a feasibility study is carried out into the system in place (Roth, Wixom and Dennis, 2009). This is a decisive procedure aimed at determining whether the developed system meets the economic, social and technological practicability.

A fact-finding routine is carried out on the ground to get the understanding of the system users on the ground. This involves occasional interviews, administration of questionnaires and practical experience by observing work done by the system on the ground. It also gives the team a chance to see how the staff operates the system and their general experience. This determines if the end users need thorough training of the system in place or not. The analysis on completion will help determine if the system needs replacement (does not meet the primary goals), or if the system should be left running (meets the intended purpose).

A phased approach to the analysis process is fairly different. It starts with the definition of the system scope, analyzing the problem at stake, analyzing the requirements, designing logically and analyzing the most appropriate solution. This process is the most preferred one compared to the others. As such, it captures the analytical requirements of the system being developed, and the system developers nearly cover all the requirements outlined in the procedures. When carried out fully and successfully, the analysis stage ensures the system that reduces the running costs, increases organizational output and meets the customers' demands. In the long run, the system on

implementation will meet the customers' requirements and as such be a successful project.

The quality of the system developed depends highly on how consistent the system development life cycle is adhered to. This covers any future shortcomings, and the resulting system is long-lasting. For example, in cases where the system programmers and the implementing team are different, the system may not solve its intended problems (Rosenblatt & Shelly, 2011). This is because the implementing team may unknowingly ignore the customer. This normally happens as a result of the implementing team not knowing why the system was primarily developed.

All these shortcomings can be avoided by hiring one team to carry out all the system development life cycle. This will not only save on extra costs but also save on the time the system is supposed to take to be operational, and also the cycle will lead to an almost perfect system.