

Software Evolution is a term that refers to the process of developing software initially, and then timely updating it for various reasons, i.e., to add new features or to remove obsolete functionalities, etc. This article focuses on discussing Software Evolution in detail.

What is Software Evolution?

The software evolution process includes fundamental activities of change analysis, release planning, system implementation, and releasing a system to customers.

1. The cost and impact of these changes are accessed to see how much the system is affected by the change and how much it might cost to implement the change.
2. If the proposed changes are accepted, a new release of the software system is planned. are considered.
3. A design is then made on which changes to implement in the next version of the system.
4. The process of change implementation is an iteration of the development process where the revisions to the system are designed, implemented, and tested.

Necessity of Software Evolution

Software evaluation is necessary just because of the following reasons:

Change in requirement with time: With time, the organization's needs and modus Operandi of working could substantially be changed so in this frequently changing time the tools(software) that they are using need to change to maximize the performance.

Environment change: As the working environment changes the things(tools) that enable us to work in that environment also changes proportionally same happens in the software world as the working environment changes then, the organizations require reintroduction of old software with updated features and functionality to adapt the new environment.

Errors and bugs: As the age of the deployed software within an organization increases their preciseness or impeccability decrease and the efficiency to bear the increasing complexity workload also continually degrades. So, in that case, it becomes necessary to avoid use of obsolete and aged software. All such obsolete Pieces of software need to undergo the evolution process in order to become robust as per the workload complexity of the current environment.

Security risks: Using outdated software within an organization may lead you to at the verge of various software-based cyberattacks and could expose your confidential data illegally associated with the software that is in use. So, it becomes necessary to avoid such security breaches through regular assessment of the security patches/modules are used within the software. If the software isn't robust enough to bear the current occurring Cyber attacks so it must be changed (updated).

For having new functionality and features: In order to increase the performance and fast data processing and other functionalities, an organization need to continuously evolve the software throughout its life cycle so that stakeholders & clients of the product could work efficiently.

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