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Tutorial ①

① What is SDLC?

The Software Development Life Cycle (SDLC) is the cost-effective and time-efficient process that development teams used to design and build high-quality software.

The goal of SDLC is to minimize project risks through forward planning so that software meets customer expectations during production and beyond.

② What is the importance of the SDLC process?

It enables the production of high-quality, low-cost software, in the shortest possible production time.

③ Explain the phases in typical SDLC process briefly.

Planning - Obtain approval for project, initiate, Assess feasibility plan, schedule.

Analysis - Understand business needs and processing needs.

Design - Define solution system based on requirement and analysis decision.

Implementation - Construct, test, train users, install new system

Maintenance - Keep system healthy and improve.

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④ Explain the types of SDLC Models.

There are more than 50 models available. Some of them are

* Waterfall model - It is universally accepted.

This is a continuous software development model in which development is seen as flowing steadily downwards (like a waterfall) through the steps of requirements analysis, design, implementation, testing (validation), integration and maintenance.

* V-Model - In this model type testing and the development, the step is planned to be parallel. So, there are verification phases on the side and the validation phase is on the other side. V-model joins by coding phase.

* RAD Model - Rapid Application Development process is an adoption of the waterfall model. It targets developing a software in a short period. It uses focus-groups to gather system requirements.

* Agile Model - This model promotes continuous interaction of development and testing during SDLC process of any project.

- ⑤ What is the testing phase in the SDLC model?
- * where it focuses on an empirical investigation in which the results describe the quality of the system.
- The phases of software testing cycle is ; Requirement analysis, Test planing and test case design and development

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Feasibility studies,

- ① What is meant by feasibility study?

- * A preliminary exploration of a proposed preliminary exploration of a proposed project or undertaking to determine its merits and viability.
- * Simply its an evaluation to check whether the project is possible or not.

- ② What is the importance of having a feasibility study report in a project?

- * To identify the logical, financial and market challenges of a proposed project.
- * It helps to determine the viability of the project.

- ③ Briefly describe the four types of techniques used in feasibility study.

② Economical feasibility - A measure of cost-effectiveness of a project or solution. (Cost-benefit Analysis)

③ Technical feasibility - A measure of practicality of a specific technical solution, and the availability of technical resources and expertise.

④ Schedule feasibility - A measure of how responsible the project timetable is.