

SDLC vs STLC – Summary Draft

1. SDLC (Software Development Life Cycle)

- **Definition:** A process that involves multiple phases in order to design, develop and maintain a high-quality software.
 - **Purpose:** The main purpose is to build a software that meets the company and user needs and is cost-efficient.
 - **Phases:**
 1. Requirement Analysis – Gather user/client requirements
 2. Planning – Estimating cost, resources and time required
 3. Design – Deciding system architecture, tools and languages
 4. Development – dividing the modules and coding
 5. Testing – debugging and cross-checking software with user requirements
 6. Deployment – publishing the software for public to use
 7. Maintenance – updating and software according to the demand and technological advancement
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2. STLC (Software Testing Life Cycle)

- **Definition:** A procedure executed to verify and validate the quality of product against the actual requirements and expectations.
 - **Purpose:** To detect bugs and errors and make sure the product is working according to requirements.
 - **Phases:**
 1. Requirement Analysis – get the idea of what to test
 2. Test Planning – estimate the cost of resources, time and identifying objectives
 3. Test Case Design – identifying test case scenarios and creating test data
 4. Environment Setup – preparing test environment, primarily involves customer and developer
 5. Test Execution – Running and analyzing tests, logging and tracking bugs
 6. Defect Reporting – Retesting of bugs, documenting the results of test to the relevant stakeholders
 7. Test Closure – Making sure the test is ready to be released
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3. Key Differences (SDLC vs STLC)

Aspect	SDLC	STLC
Focus	Software Development	Testing

Aspect	SDLC	STLC
When Starts	At the start of development phase	When development is completed
Outcome	A working software product	A product without errors that has been evaluated and verified
Phases	Requirements → Design → Coding → Testing → Deployment → Maintenance	Requirements → Planning → Design → Execution → Closure
Responsibility	Developers, Stakeholders, Managers	QA Engineers, Testers

4. Relationship between SDLC & STLC

- SDLC defines what to build and how to develop it
- STLC defines the developed product is tested, verified and ready to release
- For every SDLC phase, there's a corresponding STLC phase