

## Software Development Life Cycle (SDLC) Course

**Course Duration: 40 Hrs.**

**Course Code: SDLC-01**

### Course Overview

The **Software Development Life Cycle (SDLC)** course provides a comprehensive understanding of how software is planned, built, tested, deployed, and maintained. This course covers the complete lifecycle of software development, explaining different SDLC models and how they are applied in real-world projects. It is ideal for learners who want to understand how quality, cost, timelines, and risk are managed throughout the software development process.

### What You'll Learn?

By completing this course, you will be able to:

- Understand the phases of the Software Development Life Cycle
- Compare different SDLC models and their use cases
- Identify roles and responsibilities in each SDLC phase
- Understand how testing fits into the SDLC
- Apply SDLC concepts in agile and traditional environments
- Improve collaboration between business, development, and testing teams

### Target Audience

This course is ideal for:

- Fresh graduates and entry-level IT professionals
- Software testers and QA engineers
- Software developers and programmers

- Business analysts and project coordinators
- Anyone new to software development processes

## Pre-Requisites

Participants should have:

- Basic computer knowledge
- Interest in software development and IT processes
- No prior programming or testing experience required
- Familiarity with IT concepts is helpful but not mandatory

## Course Content

### Module 1: Introduction to SDLC

- What is SDLC and why it is important
- Overview of SDLC phases
- Stakeholders and roles

### Module 2: Requirement Analysis and Planning

- Requirement gathering techniques
- Feasibility analysis
- Project planning and estimation

### Module 3: System Design

- High-level and low-level design
- Architecture and technology selection
- Design documentation

### Module 4: Development and Implementation

- Coding standards and best practices
- Version control and collaboration
- Build and integration concepts

### **Module 5: Testing and Quality Assurance**

- Types and levels of testing
- Defect management
- Role of QA in SDLC

### **Module 6: Deployment, Maintenance, and Models**

- Deployment strategies
- Maintenance and support
- Waterfall, Agile, Iterative, and DevOps models