

# Introduction to Software Life Cycle Models

Course length: 1 day

## Course Description

As a programmer, you might have written numerous small programs or may have developed small applications to perform specific tasks. While doing so you might have employed strategies that suit you. Even though you might have brought out a system, you cannot be sure that the system meets all quality parameters. A robust, reliable and high quality software product that meets user requirements can be developed by employing SDLC models which offer a structured and process oriented approach to software development. In this course, you will examine various SDLC models that are employed to develop software systems.

**Course Objective:** You will examine the working of various SDLC models that are employed to develop software systems.

**Target Student:** This course is intended for entry level programmers or programmers who need exposure to the various software life cycle models and processes. It is also intended for project managers and development managers.

**Prerequisites:** Participants should be familiar with software or application development.

**Delivery Method:** Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

## Performance-Based Objectives

Upon successful completion of this course, students will be able to:

- Examine the Software Development Life Cycle (SDLC) and the processes involved in a standard SDLC.
- Describe the waterfall, V-model, component assembly, and chaos models.
- Become familiar with software prototyping and the spiral model.
- Describe the Rapid Application Development (RAD) model.
- Examine the various phases of the agile model and the principles and practices of extreme programming.
- Describe software development processes.

## Course Content

### Lesson 1: Getting Started with the SDLC

Topic 1A: Introduction to the SDLC

Topic 1B: Examine SDLC Phases

### Lesson 2: Understanding the Waterfall, V-Model, Component Assembly, and Chaos Models

Topic 2A: Examine the Waterfall Model

Topic 2B: Examine the V-Model

Topic 2C: Examine the Component Assembly and Chaos Models



### **Lesson 3: Understanding Software Prototyping and the Spiral Model**

Topic 3A: Examine the Iterative and Incremental Development Models

Topic 3B: Examine Software Prototyping

Topic 3C: Examine the Spiral Model

### **Lesson 4: Understanding the Rapid Application Development (RAD) Model**

Topic 4A: Introduction to RAD

Topic 4B: Essential Aspects of RAD

Topic 4C: RAD Phases

### **Lesson 5: Understanding the Agile Model and Extreme Programming**

Topic 5A: Examine the Agile Model

Topic 5B: Examine Extreme Programming

### **Lesson 6: Examining Software Development Processes**

Topic 6A: Introduction to the Rational Unified Process

Topic 6B: Examine the Workflow of RUP

Topic 6C: Examine the Iconix Process

