

System Design

SYSTEM DESIGN



POSITIVE QUADRANT
TECHNOLOGIES
SERVING INFORMATION WORLDWIDE

Programming & development

Course Curriculum

Basic – 16 Hours



SYSTEM DESIGN

Module 1 : Introduction to System

Basic concept of system

Elements of a system : Input, Output Processor, Control, Feedback, Environment, Boundaries, and Interface

Characteristics of a System

Module 2 : Types of Systems

Physical and Abstract System

Open and Closed System

Man-made System

Module 3 : System Development Life Cycle (SDLC)

Introduction to SDLC

Various phases: study, analysis, design, development, testing, implementation, maintenance

Module 4 : Architectural Design

Introduction to Software Architecture

Basic Architectural Styles (e.g., client-server)

Module 5 : Database Design

Basic Design Principles

Designing simple Classes and objects



Module 6 : Security in System Design

Basic Security Concepts

Authentication and Authorization Basics

Security Threats, Risk Analysis

Module 7 : Tools for System Analysis

Data Flow Diagram (DFD)

Logical and Physical DFD's

Developing DFD

Module 8 : System Design

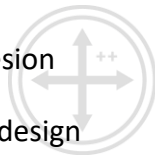
Module Specification

Module Coupling and cohesion

Top-down and bottom-up design

Logical and Physical Design

Structured design



Module 9 : Introduction to Testing

Basic of Unit Testing

Basic Integration Testing