

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 42010SFT — Architecture Description

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference IIT-SFT-42010SFT • ISO IT & Related Technologies

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	IIT-SFT-42010SFT
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Analysing Architectural Descriptions

5 chapters · 30 classes65 marks

• 1 Fundamentals of Architectural Descriptions: Key Concepts and Terminology — 6 classes

› 1.1 Define Key Terms in Architectural Descriptions

› 1.2 Explore the Purpose of Architectural Descriptions

› 1.3 Identify Components of an Architectural Description

› 1.4 Analyze Different Architectural Descriptions

› 1.5 Compare Architectural Descriptions Across Domains

› 1.6 Apply Architectural Description Concepts to a Case Study

• 2 Components of Architectural Descriptions: Structure and Elements — 6 classes

› 2.1 Identify Key Components of Architectural Descriptions

› 2.2 Explore the Structure of Architectural Descriptions

› 2.3 Examine the Role of Stakeholders in Architectural Elements

› 2.4 Analyze the Interrelationships Between Architectural Components

› 2.5 Evaluate Examples of Effective Architectural Descriptions

› 2.6 Create a Sample Architectural Description Using Learned Elements

• 3 Analyzing Architectural Frameworks: Models and Techniques — 6 classes

› 3.1 Identify Key Components of Architectural Frameworks

› 3.2 Explore Various Types of Architectural Models

› 3.3 Analyze Strengths and Weaknesses of Different Architectures

› 3.4 Examine Techniques for Documenting Architectural Descriptions

› 3.5 Apply Architectural Frameworks to Real-World Scenarios

› 3.6 Evaluate the Effectiveness of Selected Architectural Descriptions

• 4 Best Practices in Architectural Analysis: Tools and Methodologies — 6 classes

› 4.1 Identify Key Components of Architectural Descriptions

› 4.2 Explore Common Tools for Architectural Analysis

› 4.3 Evaluate Methodologies for Effective Analysis

› 4.4 Apply Best Practices in Tool Selection

› 4.5 Analyze Case Studies of Architectural Descriptions

› 4.6 Develop a Personal Framework for Architectural Analysis

• 5 Evaluating Architectural Descriptions: Metrics and Assessment Strategies — 6 classes

› 5.1 Define Key Metrics for Evaluating Architectural Descriptions

› 5.2 Explore Assessment Strategies for Architectural Quality

› 5.3 Analyze Case Studies on Architectural Description Evaluations

› 5.4 Develop a Metric-Based Evaluation Framework

› 5.5 Conduct Peer Reviews Using Defined Metrics

› 5.6 Present Findings and Recommendations from Evaluations

• 1 Foundations of Architectural Principles in Software Development

— 6 classes

- › 1.1 Define Core Architectural Principles in Software Development
- › 1.2 Identify Key Frameworks Influencing Software Architecture
- › 1.3 Analyze the Role of Stakeholders in Architectural Design
- › 1.4 Evaluate the Impact of Architectural Decisions on Software Quality
- › 1.5 Develop a Basic Architectural Model for a Sample Application
- › 1.6 Apply Architectural Frameworks to Real-World Software Scenarios

• 2 Key Architectural Frameworks and Their Applications — 6 classes

- › 2.1 Identify Key Architectural Frameworks in ISO 42010
- › 2.2 Compare and Contrast Architectural Frameworks and Their Principles
- › 2.3 Analyze the Role of Frameworks in Architectural Descriptions
- › 2.4 Evaluate Industry-Specific Applications of Architectural Frameworks
- › 2.5 Develop Criteria for Selecting Appropriate Frameworks for Projects
- › 2.6 Design a Case Study Applying an Architectural Framework to a Real-World Scenario

• 3 Designing Effective Architectures: Best Practices and Methodologies — 6 classes

- › 3.1 Identify Key Architectural Principles for Effective Design
- › 3.2 Analyze Different Architectural Frameworks and Their Applications
- › 3.3 Evaluate Best Practices in Architecture Description
- › 3.4 Develop a Methodology for Architectural Design Process
- › 3.5 Collaborate on Case Studies of Successful Architecture Projects
- › 3.6 Create a Presentation on Proposed Architectural Solutions

• 4 Managing Architectural Decisions: Tools and Techniques — 6 classes

- › 4.1 Identify Key Architectural Decisions in Projects
- › 4.2 Analyze Stakeholder Input for Decision-Making
- › 4.3 Evaluate Decision-Making Tools and Techniques
- › 4.4 Develop Criteria for Architectural Decision Evaluation
- › 4.5 Create a Decision Matrix for Architectural Choices
- › 4.6 Document and Communicate Architectural Decisions Effectively

• 5 Evaluating and Evolving Architectures: Quality Attributes and Metrics — 6 classes

- › 5.1 Identify Key Quality Attributes in Architecture
- › 5.2 Analyze the Impact of Quality Attributes on Architecture Design
- › 5.3 Define Relevant Metrics for Evaluating Quality Attributes
- › 5.4 Assess Existing Architectures Using Defined Metrics
- › 5.5 Develop Strategies for Enhancing Quality Attributes
- › 5.6 Implement Continuous Improvement Processes for Architecture Evolution

• 1 Understanding Communication Fundamentals in Architectural Contexts — 6 classes

- › 1.1 Define Key Communication Concepts in Architecture
- › 1.2 Identify Stakeholders and Their Communication Needs
- › 1.3 Explore Verbal and Non-Verbal Communication Techniques
- › 1.4 Analyze Different Communication Channels in Architectural Projects
- › 1.5 Develop Effective Presentation Strategies for Architecture Stakeholders
- › 1.6 Practice Delivering Architecture Descriptions with Clarity and Confidence

• 2 Effective Verbal and Non-Verbal Communication Techniques — 6 classes

- › 2.1 Analyze the Importance of Effective Communication in Leadership
- › 2.2 Identify Key Components of Verbal Communication Techniques
- › 2.3 Explore Non-Verbal Communication Cues and Their Impact
- › 2.4 Practice Active Listening Techniques for Better Engagement
- › 2.5 Utilize Body Language to Enhance Communication Effectiveness
- › 2.6 Develop Strategies for Delivering Clear and Persuasive Presentations

• 3 Crafting Clear and Concise Architecture Descriptions — 6 classes

- › 3.1 Identify Key Components of Architecture Descriptions
- › 3.2 Analyze Examples of Effective Architecture Descriptions
- › 3.3 Develop a Clear Structure for Your Description
- › 3.4 Use Visual Aids to Enhance Understanding
- › 3.5 Practice Writing Concise Architecture Descriptions
- › 3.6 Present Your Architecture Description to the Group

• 4 Visual Aids and Presentation Tools for Architecture Communication — 6 classes

- › 4.1 Analyze the Role of Visual Aids in Architectural Communication
- › 4.2 Explore Different Types of Presentation Tools for Architecture
- › 4.3 Design Effective Architectural Visual Aids Using Software Tools
- › 4.4 Develop Key Messages to Accompany Visual Presentations
- › 4.5 Practice Delivering Engaging Presentations Using Visual Supports
- › 4.6 Evaluate the Impact of Visual Aids on Audience Understanding

• 5 Tailoring Communication for Stakeholder Engagement — 6 classes

- › 5.1 Identify Stakeholder Needs for Effective Communication
- › 5.2 Analyze Different Communication Styles for Diverse Stakeholders
- › 5.3 Develop Tailored Messages for Specific Stakeholder Groups
- › 5.4 Utilize Visual Aids to Enhance Stakeholder Understanding
- › 5.5 Practice Active Listening Techniques in Stakeholder Engagement
- › 5.6 Evaluate the Impact of Communication Strategies on Stakeholder Relationships

• 1 Understanding Architecture Models in ISO 42010 — 6 classes

- › 1.1 Define Key Concepts of Architecture Models in ISO 42010
- › 1.2 Identify Different Types of Architecture Models
- › 1.3 Analyze the Structure of Architecture Descriptions
- › 1.4 Explore Relationships Between Architecture Models and Stakeholders
- › 1.5 Evaluate Best Practices for Developing Architecture Models
- › 1.6 Apply Architecture Modeling Techniques to Real-world Scenarios

• 2 Identifying Stakeholders and Concerns — 6 classes

- › 2.1 Define Stakeholders in Architectural Context
- › 2.2 Identify Key Stakeholder Roles and Responsibilities
- › 2.3 Gather Stakeholder Concerns through Surveys and Interviews
- › 2.4 Analyze Stakeholder Concerns for Prioritization
- › 2.5 Map Stakeholders to Architecture Models
- › 2.6 Communicate Stakeholder Needs to Project Teams

• 3 Frameworks and Notation for Architecture Description — 6 classes

- › 3.1 Identify Key Frameworks for Architecture Description
- › 3.2 Analyze Common Notations Used in Architecture Models
- › 3.3 Compare Different Architectural Frameworks and Their Applications
- › 3.4 Describe Best Practices for Using Notation in Architecture Descriptions
- › 3.5 Create Simple Architecture Models Using Selected Notations
- › 3.6 Evaluate Architecture Models Against Frameworks and Notation Standards

• 4 Creating Effective Architecture Models — 6 classes

- › 4.1 Understand the Purpose of Architecture Models
- › 4.2 Identify Key Components of Effective Architecture Models
- › 4.3 Explore Different Types of Architecture Models
- › 4.4 Develop Criteria for Evaluating Architecture Models
- › 4.5 Create a Sample Architecture Model Using Best Practices
- › 4.6 Present and Review Architecture Models for Feedback

• 5 Validating and Communicating Architecture Models — 6 classes

- › 5.1 Identify Key Components of Architecture Models
- › 5.2 Analyze Validation Techniques for Architecture Models
- › 5.3 Evaluate Effectiveness of Communication Strategies in Architecture
- › 5.4 Develop Criteria for Model Validation in Architecture Description
- › 5.5 Create Visual Aids to Enhance Architecture Communication
- › 5.6 Apply Validation Methods to Real-World Architecture Scenarios

• 1 Understanding Evaluation Frameworks in Architecture Description — 6 classes

- › 1.1 Introduce Key Evaluation Concepts in Architecture Description
- › 1.2 Identify Various Evaluation Frameworks Used in Architecture
- › 1.3 Analyze the Purpose and Benefits of Evaluation Frameworks
- › 1.4 Compare Different Evaluation Frameworks for Architecture
- › 1.5 Apply Evaluation Frameworks to Real-World Architecture Scenarios
- › 1.6 Assess Compliance with ISO 42010 Requirements in Architecture Evaluations

• 2 Metrics and Criteria for Architecture Compliance — 6 classes

- › 2.1 Define Key Metrics for Architecture Compliance
- › 2.2 Identify Compliance Criteria Based on ISO 42010SFT Standards
- › 2.3 Analyze Existing Architecture Descriptions for Metric Application
- › 2.4 Develop a Framework for Compliance Evaluation
- › 2.5 Implement Assessment Techniques for Architecture Compliance
- › 2.6 Review and Refine Compliance Metrics for Continuous Improvement

• 3 Conducting Architecture Evaluations: Tools and Techniques — 6 classes

- › 3.1 Identify Key Stakeholders for Architecture Evaluations
- › 3.2 Define Evaluation Criteria for Architecture Assessments
- › 3.3 Utilize Evaluation Tools to Measure Architecture Compliance
- › 3.4 Analyze Architecture Evaluation Results Effectively
- › 3.5 Create Actionable Recommendations Based on Evaluation Findings
- › 3.6 Implement Architecture Improvements Post-Evaluation

• 4 Analyzing Compliance Gaps and Risks — 6 classes

- › 4.1 Identify Key Compliance Requirements in Architecture
- › 4.2 Conduct a Gap Analysis for Compliance Standards
- › 4.3 Assess Risks Associated with Compliance Gaps
- › 4.4 Develop Mitigation Strategies for Identified Risks
- › 4.5 Create an Action Plan for Addressing Compliance Gaps
- › 4.6 Evaluate the Effectiveness of Compliance Remediation Efforts

• 5 Reporting and Communicating Evaluation Results Effectively — 6 classes

- › 5.1 Identify Key Evaluation Metrics for Effective Communication
- › 5.2 Analyze Audience Needs to Tailor Reporting Strategies
- › 5.3 Design Engaging Visuals to Present Evaluation Results
- › 5.4 Develop Clear Messaging to Convey Evaluation Findings
- › 5.5 Construct an Action Plan Based on Evaluation Results
- › 5.6 Evaluate Feedback Mechanisms for Continuous Improvement

• 1 Understanding Architectural Leadership Principles — 6 classes

- › 1.1 Identify Key Concepts of Architectural Leadership
- › 1.2 Analyze the Role of a Leader in Architecture
- › 1.3 Explore Effective Communication Strategies for Architects
- › 1.4 Evaluate Decision-Making Processes in Architectural Leadership
- › 1.5 Implement Collaborative Approaches in Architectural Teams
- › 1.6 Reflect on Personal Leadership Style in Architectural Contexts

• 2 Stakeholder Engagement and Communication Strategies — 6 classes

- › 2.1 Identify Stakeholders and Their Needs
- › 2.2 Analyze Stakeholder Influence and Impact
- › 2.3 Develop Effective Communication Strategies
- › 2.4 Facilitate Stakeholder Engagement Workshops
- › 2.5 Evaluate Feedback Mechanisms for Stakeholder Input
- › 2.6 Implement Continuous Engagement and Communication Plans

• 3 Developing an Architectural Vision and Strategy — 6 classes

- › 3.1 Define the Core Components of Architectural Vision
- › 3.2 Analyze Stakeholder Needs for Vision Development
- › 3.3 Formulate a Strategic Framework for Architecture
- › 3.4 Explore Methods for Communicating Architectural Vision
- › 3.5 Align Architectural Strategy with Business Objectives
- › 3.6 Evaluate and Adapt Architectural Vision Over Time

• 4 Frameworks and Methodologies for Architectural Governance — 6 classes

- › 4.1 Explore the Importance of Architectural Governance Frameworks
- › 4.2 Identify Key Methodologies for Effective Architecture Leadership
- › 4.3 Analyze Stakeholder Roles in Architectural Governance
- › 4.4 Compare Different Architectural Frameworks and Their Applications
- › 4.5 Develop a Governance Model for Your Architectural Projects
- › 4.6 Implement Best Practices in Architectural Governance and Methodologies

• 5 Measuring and Evolving Architectural Maturity — 6 classes

- › 5.1 Define Architectural Maturity and its Importance in Leadership
- › 5.2 Identify Key Indicators of Architectural Maturity Levels
- › 5.3 Assess Current Architectural Maturity using Frameworks
- › 5.4 Develop a Roadmap for Advancing Architectural Maturity
- › 5.5 Implement Feedback Mechanisms to Monitor Architectural Growth
- › 5.6 Facilitate a Culture of Continuous Improvement in Architecture