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COURSE BROCHURE

Information Systems Design Specification and Review Training Course for Analysts

13 – 17 December 2026
Doha

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Information Systems Design Specification and Review is a 1-week training course for business analysts and IT team leads who turn stakeholder needs into a reviewed System Design Specification Pack. As organisations replace legacy platforms, connect cloud services and automate more of their operations, weak specifications become the main source of rework, missed scope and disputes with suppliers. Jupiter Prime Training presents Information Systems Design Specification as the discipline that links business intent to buildable design.

Why Information Systems Design Specification Matters Now

Three forces shape Information Systems Design Specification today: shorter release cycles that leave less time between elicitation and build, integration-heavy architectures where one interface change ripples across many systems, and business owners who expect to see their processes reflected precisely in screens, rules and records. An organisation that specifies well gets estimates it can trust, testable acceptance criteria and fewer change requests. The course rests on widely used practice: the Unified Modeling Language UML, Business Process Model and Notation BPMN and entity-relationship modelling.

Who Gains Most from Information Systems Design Specification

- Analysts responsible for eliciting needs and writing functional requirements for new or changed systems
- IT team leads who accept specifications from analysts and plan build work against them
- Solution designers who translate functional statements into components, interfaces and data structures
- Test leads who derive acceptance criteria and test conditions from use cases and rules
- Product owners who prioritise features and sign off scope with business sponsors

Delivery groups gain most when an analyst, a team lead and a test lead from the same initiative attend together and share one specification vocabulary.

Information Systems Design Specification Capabilities

Participants practise moving from interview notes to a specification developers and testers can challenge.

- Elicit functional and non-functional needs through structured interviews and observation — scope agreement with business sponsors
- Model current and target processes with swimlane diagrams — redesign choices for process owners
- Build logical data models with entities, attributes and relationships — database design decisions for developers
- Specify use cases with main, alternative and exception flows — build estimates for team leads

- Write business rules and acceptance criteria in testable form — test planning for quality leads
- Run structured design reviews with traceable findings — sign-off decisions for product owners

Key Information Systems Design Specification Terms

- Use case — a description of how an actor interacts with a system to reach a goal, including alternative and exception paths.
- Logical data model — a representation of entities, attributes and relationships that is independent of any database product.
- Non-functional requirement — a quality the system must show, such as response time, availability, security or usability.
- Business rule — a statement that constrains or defines business behaviour and that the system must enforce.
- Traceability matrix — a table linking each need to the design elements and tests that satisfy it.
- Design review — a structured examination of a specification by peers to find gaps, conflicts and ambiguity before build.

Information Systems Design Specification Day by Day

Day 1: Framing the System Need

- Context Diagram — Defining System Boundary and External Actors
- Stakeholder Register — Identifying Sources of Requirements and Sign-Off
- Structured Interview Guide — Choosing Questions for Hidden Needs
- Observation and Document Study — Validating Stated Versus Actual Practice
- Problem Statement Canvas — Agreeing Scope Before Any Design Work

Day 2: Modelling Processes and Data

- Swimlane Process Diagram in BPMN — Locating Handoffs and Delays
- Current and Target Process Comparison — Selecting Changes Worth Automating
- Entity-Relationship Diagram — Settling Core Records and Their Links
- Normalisation Checks — Removing Redundant Attributes Before Build
- Data Dictionary — Fixing Definitions, Formats and Owners

Day 3: Specifying Behaviour

- Use Case Diagram in UML — Grouping Goals by Actor
- Use Case Narrative — Writing Main, Alternative and Exception Flows
- Decision Tables — Capturing Complex Business Rules Without Ambiguity
- State Transition Diagram — Controlling Record Lifecycle and Status Changes
- Screen and Report Mock-Ups — Confirming Field Needs With Users

Day 4: Quality, Interfaces and Review

- Non-Functional Requirement Catalogue — Setting Measurable Quality Targets
- Interface Specification — Defining Message Content Between Connected Systems
- Acceptance Criteria in Given-When-Then Form — Enabling Test Design
- Traceability Matrix — Linking Needs to Design and Tests
- Peer Design Review Checklist — Finding Gaps Before Build Starts

Day 5: Practising the System Design Specification Pack

- Case Elicitation Session — Applying Interview and Observation Techniques
- Integrated Process and Data Models — Applying Day Two Notations
- Use Case and Rule Set — Applying Behaviour Specification Methods
- Mock Design Review Panel — Applying the Review Checklist
- System Design Specification Pack — Assembling Models, Rules and Criteria

Applying Information Systems Design Specification After the Course

- Run a peer design review on a live specification using the checklist and record findings in a traceability matrix
- Rewrite one existing use case with full exception flows and testable acceptance criteria, then agree it with the test lead

Information Systems Design Specification Questions FAQ

What is Information Systems Design Specification and why does it matter now?

Information Systems Design Specification is the practice of describing what a system must do in models, use cases and rules that builders can act on. It matters now because faster releases and connected platforms make ambiguous specifications costly.

Which roles gain most from Information Systems Design Specification training?

Business analysts and IT team leads gain most. Solution designers, test leads and product owners also benefit because they approve the same specifications.

How does Information Systems Design Specification training differ from a general business analysis course?

Information Systems Design Specification training goes past elicitation and business cases into design artefacts. A general business analysis course covers strategy broadly; this course concentrates on data models, use cases, interfaces and peer review of the specification itself.

What will you bring back from Information Systems Design Specification training?

You bring back a reviewed specification built on a case: process and data models, use cases, business rules, acceptance criteria and a traceability matrix, ready to adapt to a live initiative.

Information Systems Design Specification: The Way Forward

The System Design Specification Pack gives analysts and team leads one shared reference for build planning. Its first use is the scope decision before estimates are fixed. After its first release, revisit the non-functional targets and interface definitions, where hospital records and logistics platforms often reveal late gaps.