



IT Documentation: Runbooks, Architecture Documents and Knowledge Base Articles



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Introduction:

IT documentation decides how fast an outage is fixed and how safely a platform changes hands. Runbooks go stale after the first upgrade, network diagrams disagree with the live estate, knowledge base articles duplicate each other and handovers depend on whoever still remembers the setup. This Core Concept course takes system administrators, engineers and support staff through writing, diagramming, versioning and maintaining operational documentation with runbook, C4 model, Diataxis, docs-as-code and KCS methods. Participants build an IT Service Documentation Set: a runbook, an architecture document and linked knowledge base articles for a case IT service.

Course Objectives:

- Audit an IT team's current documentation estate for gaps, staleness, duplication and missing owners
- Classify operational content with the Diataxis model and assign each item a fit-for-purpose template
- Write runbooks and troubleshooting procedures with verifiable steps, decision points, expected outputs and rollback actions
- Produce architecture, configuration and network documentation using C4 model diagrams and diagrams-as-code tools
- Run documentation through Git-based version control, pull-request review and approval with named owners and review dates
- Maintain a support knowledge base with KCS solve and evolve loop practices and measure article reuse and quality

Target Audience:

- Engineers who administer servers, storage, cloud platforms and directory services and write their operating procedures
 - Network and infrastructure engineers who record topologies, addressing, device configuration and change history
 - Service desk and technical support practitioners who author and reuse knowledge base articles and fix-it guides
 - Operations and on-call engineers who follow and update runbooks during incidents and maintenance windows
 - Service management practitioners who hold incident, problem and change records and prepare handover packs
 - Application support engineers who document integrations, interfaces and deployment steps for production systems
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Course Outline:

Day 1: Why IT Documentation Fails and the Documentation Estate

- Documentation Debt Symptoms: Stale Runbooks, Tribal Knowledge and Single Points of Failure
- IT Documentation Type Map: Architecture, Configuration, Runbooks, Records, KB Articles and User Guides
- Reader Scenarios: On-Call Engineer at Night, New Joiner, Auditor and End User
- Documentation Estate Inventory Sheet With Owner, Location and Last-Reviewed Fields
- Staleness and Gap Scoring Against a Documentation Health Checklist

Day 2: Documentation Models, Templates and Information Architecture

- Diataxis Model: Tutorials, How-To Guides, Reference and Explanation
- Runbook Template Anatomy: Trigger, Preconditions, Steps, Verification and Rollback
- Architecture Decision Record Template and Design Document Sections
- Knowledge Base Article Template: Issue, Environment, Cause and Resolution
- Wiki Space Hierarchy, Page Naming Conventions and Metadata Labels

Day 3: Writing Runbooks, Procedures and Technical Diagrams

- Imperative Step Writing With Command Blocks, Expected Output and Screenshots
- Troubleshooting Decision Trees and Error Message Lookup Tables
- C4 Model Context, Container and Component Diagrams for an IT Service
- Network Topology, Rack Elevation and IP Addressing Documentation
- Diagrams-as-Code With PlantUML and Structurizr DSL

Day 4: Docs-as-Code, Review Workflows and Keeping Content Current

- Markdown and AsciiDoc Repositories Under Git Version Control
- Pull-Request Review, Approval Gates and Doc-Required Merge Checks
- Content Ownership Matrix, Review-By Dates and Archiving Rules
- KCS Solve Loop and Evolve Loop for Service Desk Knowledge
- Runbook Automation Candidates and Documentation for Audit Evidence and Handover

Day 5: Case IT Service Documentation Set Build

- Case IT Service Brief: Customer Portal on Cloud Hosting With a Shared Database
 - Runbook Drafting for Failover, Certificate Renewal and Service Restart
 - Architecture Document Build With C4 Diagrams and Decision Records
 - Knowledge Base Article Set From Recorded Incident Tickets
 - Peer Walkthrough Test, Documentation Quality Scorecard and Set Presentation
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Skills You Will Gain:

- Runbook Authoring
- Troubleshooting Procedure Design
- C4 Architecture Diagramming
- Network Documentation
- Docs-as-Code Workflow
- Documentation Review and Approval
- Knowledge Article Writing
- Documentation Quality Measurement

Why Attend This Course:

- Leave with an IT Service Documentation Set of runbook, architecture document and knowledge base articles tested by a peer walkthrough
- Cut time lost during incidents searching for steps that exist only in a colleague's memory
- Put documentation into the same review and version history as configuration and code so it stops drifting
- Compare documentation practice with engineers and support staff from banking, telecoms, healthcare, government services and energy

Conclusion:

Operational documentation earns its keep when an on-call engineer can follow it without calling its author. The course moves from why IT documentation fails and an inventory of the current estate, through Diataxis and purpose-built templates, to writing runbooks, troubleshooting trees, C4 and network diagrams, and then to docs-as-code, review gates, ownership, KCS knowledge practices and audit and handover evidence. The final day produces an IT Service Documentation Set that participants can adopt as their team's reference standard.
