# Automated Data Migration Tools and Best Practices Training Course

Professional Development Training Course Outline

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|---|---|---|---|
| **Category** | Enterprise Resource Planning (ERP) | **Duration** | 5 Days |
| **Base Fee** | $1,500 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Automated Data Migration Tools and Best Practices Training Course is engineered to equip IT professionals with the cutting-edge knowledge and automated tools necessary for executing zero-downtime data migration projects. The digital transformation landscape demands flawless data mobility, moving vast and complex datasets between diverse platforms be it Cloud Migration, ERP system upgrades, or database consolidation. Successful migration requires a strategic blend of technical proficiency, robust planning, and adherence to industry best practices. This course focuses heavily on leveraging automation for tasks like data profiling, ETL/ELT pipeline construction, and rigorous data validation, fundamentally mitigating the risks of data loss, corruption, and non-compliance. Our practical, hands-on approach ensures learners can immediately apply real-world techniques to secure, efficient, and cost-effective data transfers.

The modern enterprise runs on accurate and accessible data, making the skill of automated data migration a critical competency for maintaining business continuity and driving innovation. This course moves beyond manual scripting, diving into specialized, market-leading migration toolsets and methodologies like Trickle Migration and Big Bang strategies, emphasizing automation's role in ensuring data integrity and governance. Key modules cover advanced topics such as schema drift handling, real-time data replication (CDC), and comprehensive rollback planning. By mastering these advanced techniques, participants will be positioned as strategic experts capable of leading complex digital transformation initiatives and delivering measurable business value through accelerated, high-quality data transitions.

## Programme Curriculum

**Automated Data Migration Tools and Best Practices Training Course**

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**Course Duration**

5 days

**Course Objectives**

1. Master the Data Migration Lifecycle from planning to decommissioning.
2. Select and justify appropriate Cloud Migration Strategies
3. Utilize Automated Data Profiling tools to assess data quality and complexity.
4. Design and implement scalable ETL/ELT Pipelines for high-volume data movement.
5. Configure and execute Real-Time Data Replication (CDC) for minimal downtime.
6. Ensure Data Integrity and Data Quality using automated validation frameworks.
7. Develop robust Rollback and Disaster Recovery plans for migration failure scenarios.
8. Apply Schema Drift Handling techniques in dynamic, evolving environments.
9. Comply with Data Governance and Regulatory Standards during transfer.
10. Differentiate between and implement Big Bang and Phased Migration strategies.
11. Troubleshoot and resolve common Data Inconsistency and Performance Bottlenecks.
12. Conduct efficient Database and Application Migration using specialized tools.
13. Calculate Cost Estimation and demonstrate ROI for automated migration projects.

**Target Audience**

1. Data Engineers / ETL Developers
2. Database Administrators (DBAs)
3. Cloud Architects
4. IT Project Managers
5. Data Analysts
6. Business Intelligence (BI) Professionals
7. Data Governance Specialists
8. Systems Administrators

**Course Modules**

**Module 1: Data Migration Strategy and Planning**

- Data Migration Assessment.
- Strategy Selection.
- Risk Management & Stakeholder Alignment.
- Tools & Resource Selection.
- Case Study: ERP System Upgrade Migration.

**Module 2: Automated Data Profiling and Cleansing**

- Data Profiling Tool Usage.
- Data Quality Rule Definition.
- Automated Data Cleansing.
- Source-to-Target Data Mapping.
- Case Study: Merger & Acquisition (M&A) Data Consolidation.

**Module 3: ETL/ELT Pipeline Automation**

- Designing High-Performance Pipelines.
- Leveraging Cloud Services.
- Change Data Capture (CDC) Implementation.
- Incremental and Full Load.
- Case Study: Database Migration to Cloud Data Warehouse.

**Module 4: Data Validation and Quality Assurance (QA)**

- Pre-Migration Validation.
- Post-Migration Automated Checks.
- Data Reconciliation Frameworks.
- Error Logging and Reporting.
- Case Study: Financial System Data Integrity Audit.

**Module 5: Cloud and Platform Migration Tools**

- AWS Data Migration Service.
- Azure Data Factory.
- Google Cloud Database Migration Service.
- Application-Specific Tools
- Case Study: Homogeneous Database Migration.

**Module 6: Security and Governance in Migration**

- Data Security Best Practices.
- Compliance Requirements.
- Audit Trails and Documentation.
- Decommissioning Strategy.
- Case Study: Healthcare Data Migration.

**Module 7: Downtime Minimization and Rollback Planning**

- Phased Cutover Techniques.
- Parallel Run Strategy.

- Detailed Rollback Procedures.
- Performance Tuning.
- Case Study: E-commerce Platform Migration.

**Module 8: Advanced Scenarios and Optimization**

- Handling Hierarchical and Unstructured Data
- Schema Drift Management.
- Performance Metrics and Monitoring.
- Post-Migration Optimization.
- Case Study: Big Data Platform Consolidation.

## Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

**Register as a group from 3 participants for a Discount**

**Send us an email: info@fineskilltrainingcenter.org or call** +254769199797

**Certification**

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

**Tailor-Made Course**

We also offer tailor-made courses based on your needs.

**Key Notes**

**a.** The participant must be conversant with English.

**b.** Upon completion of training the participant will be issued with an Authorized Training Certificate

**c.** Course duration is flexible and the contents can be modified to fit any number of days.

**d.** The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

**e.** One-year post-training support Consultation and Coaching provided after the course.

**f.** Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## Upcoming Scheduled Sessions

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 27 Nov 2026 | Online | $1,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $1,500 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $4,500 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |

Ready to enroll or request a customized program? Book online or contact us:

**Register Online Now**

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com