ETL Processes & Tools Training Course

Professional Development Training Course Outline

Category	Business Intelligence	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

ETL Processes & Tools Training Course is designed for professionals who want to master the art of data extraction, transformation, and loading across various platforms. This course equips participants with practical knowledge of the latest ETL frameworks, automation techniques, and data integration strategies. Attendees will gain hands-on experience with industry-standard ETL tools, enabling them to optimize data workflows, ensure data quality, and accelerate analytics-driven decision-making. The program emphasizes a blend of theoretical foundations, practical exercises, and real-world case studies to create a robust learning experience tailored to modern data environments.

Participants will explore advanced techniques in data extraction from multiple sources, data transformation using scripting and visual tools, and loading processes into data warehouses and big data environments. This training also covers ETL performance optimization, error handling, and best practices for scalable data pipelines. By the end of the course, learners will be capable of designing, implementing, and maintaining efficient ETL workflows that align with organizational goals, improve operational efficiency, and drive business intelligence initiatives.

Programme Curriculum

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Course Objectives

1. Understand fundamental concepts of ETL processes and data integration techniques
2. Gain proficiency in popular ETL tools including Talend, Informatica, and Apache NiFi
3. Master data extraction from structured, semi-structured, and unstructured sources
4. Implement efficient data transformation using scripting, mapping, and workflow orchestration
5. Learn data quality management and validation best practices
6. Design scalable ETL pipelines for cloud and on-premise environments
7. Optimize ETL performance for large-scale data processing
8. Apply error handling, logging, and monitoring techniques for ETL jobs
9. Integrate ETL processes with business intelligence and analytics platforms
10. Develop automation strategies for recurring ETL tasks
11. Understand data governance, compliance, and security in ETL workflows
12. Gain experience through real-world ETL case studies
13. Enhance decision-making capabilities using optimized data pipelines

Organizational Benefits

- Streamlined data workflows across departments
- Improved data accuracy and consistency for reporting
- Faster decision-making with timely data integration
- Reduced operational costs through automation
- Enhanced scalability of data processing solutions
- Better data governance and compliance adherence
- Increased employee efficiency with ETL skill development
- Optimized use of ETL tools and technologies
- Improved analytics and business intelligence capabilities
- Strong foundation for advanced data engineering projects

Target Audiences

- Data engineers and ETL developers
- Business intelligence professionals
- Data analysts and reporting specialists
- Database administrators
- IT managers and team leads
- Software developers interested in data integration
- Cloud and big data professionals
- Professionals seeking career growth in data engineering

Course Duration: 5 days

Course Modules

Module 1: Introduction to ETL

- Overview of ETL processes and data integration
- Understanding data sources and types
- ETL lifecycle and architecture
- Challenges in ETL implementation
- Industry trends in ETL tools
- Case Study: ETL implementation in a retail company

Module 2: ETL Tools Overview

- Introduction to Talend, Informatica, and Apache NiFi
- Comparison of ETL tool capabilities
- Selecting the right tool for organizational needs
- Installation and configuration basics
- User interface and workflow design
- Case Study: Tool selection for a financial services project

Module 3: Data Extraction Techniques

- Extracting data from databases and flat files
- Handling semi-structured and unstructured data
- APIs and third-party data source extraction
- Incremental and full data extraction
- Automation of extraction processes
- Case Study: Multi-source data extraction for e-commerce analytics

Module 4: Data Transformation Techniques

- Data cleaning, mapping, and enrichment
- Scripting and visual transformation tools
- Aggregation, sorting, and filtering
- Handling missing or inconsistent data
- Data validation and quality checks
- Case Study: Transforming CRM and ERP data for analytics

Module 5: Data Loading Strategies

- Loading into data warehouses and data lakes
- Batch vs. real-time loading approaches
- Handling large data volumes efficiently
- Scheduling and automation of loading tasks
- Performance optimization during loading
- Case Study: Data warehouse population for a healthcare provider

Module 6: ETL Performance Optimization

- Monitoring and tuning ETL processes
- Parallel processing and partitioning strategies
- Resource allocation and scheduling best practices

- Minimizing downtime and failures
- ETL pipeline troubleshooting
- Case Study: Optimizing ETL for a telecom company

Module 7: Error Handling and Logging

- Common ETL errors and debugging techniques
- Logging and audit trails for ETL jobs
- Exception handling and recovery mechanisms
- Maintaining data integrity during failures
- Monitoring tools for ETL pipelines
- Case Study: Managing ETL errors in a banking environment

Module 8: Automation and Best Practices

- Automating recurring ETL workflows
- Using scheduling and orchestration tools
- ETL best practices for maintainability
- Compliance, governance, and security considerations
- Continuous improvement and workflow optimization
- Case Study: Automated ETL for a large-scale retail chain

Training Methodology

- Interactive instructor-led sessions with live demonstrations
- Hands-on lab exercises on real-world datasets
- Group discussions and collaborative problem-solving
- Step-by-step guidance in ETL tool usage
- Case studies illustrating practical ETL implementations
- Quizzes and assessments to reinforce learning
- Access to recorded sessions and learning materials
- Personalized support and doubt-clearing sessions

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

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