ETL with SQL 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 with SQL Training Course is designed to equip participants with the skills and knowledge required to efficiently extract, transform, and load data across complex databases. This comprehensive program emphasizes hands-on learning with real-world datasets, empowering learners to implement SQL queries, automate data pipelines, and optimize data workflows. Participants will gain practical experience with ETL processes, data modeling, and database management, enabling them to make data-driven decisions and streamline business operations. The course integrates industry best practices, ensuring that learners are job-ready for roles in data engineering, business intelligence, and analytics.

This course caters to professionals seeking to master ETL concepts while enhancing their SQL proficiency. Leveraging advanced tools and techniques, learners will explore performance tuning, data validation, and error handling within ETL pipelines. By focusing on both foundational principles and cutting-edge methodologies, the training ensures participants are prepared to handle large-scale data processing efficiently. Through a combination of interactive sessions, case studies, and practical exercises, participants will leave with actionable insights and the confidence to apply ETL strategies effectively in real organizational environments.

Programme Curriculum

ETL with SQL Training Course

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Course Objectives

1. Understand ETL concepts, architecture, and workflows using SQL
2. Perform data extraction from multiple sources efficiently
3. Transform and cleanse data to ensure data quality and consistency
4. Load data into target databases and data warehouses accurately
5. Develop complex SQL queries for data analysis and reporting
6. Optimize ETL pipelines for performance and scalability
7. Implement error handling and data validation techniques
8. Utilize automation tools to streamline ETL processes
9. Explore advanced SQL functions and procedures for ETL
10. Integrate ETL processes with business intelligence tools
11. Understand data modeling and relational database design
12. Apply best practices for ETL documentation and maintenance
13. Solve real-world ETL problems using case study-driven learning

Organizational Benefits

1. Streamlined data processing and improved operational efficiency
2. Enhanced data accuracy and integrity across systems
3. Accelerated business intelligence and reporting capabilities
4. Reduced time and cost in data management processes
5. Increased team productivity through standardized ETL workflows
6. Improved decision-making using accurate and timely data
7. Ability to scale ETL processes for growing data volumes
8. Empowered IT teams with advanced SQL and ETL skills
9. Minimized risk of errors in data migration and integration
10. Strengthened competitive advantage through data-driven insights

Target Audiences

1. Data Analysts seeking ETL and SQL expertise
2. Business Intelligence Developers
3. Database Administrators
4. Data Engineers and ETL Developers
5. IT Professionals involved in data integration
6. Software Developers working with relational databases
7. Project Managers overseeing data-driven projects
8. Students and fresh graduates aiming for data engineering roles

Course Duration: 5 days

Course Modules

Module 1: Introduction to ETL and SQL

- Understanding ETL processes and architecture
- Overview of SQL for data manipulation
- Data sources and data warehousing concepts
- ETL workflow design and optimization
- Data profiling and quality assessment
- Case Study: Building a simple ETL pipeline from CSV to database

Module 2: Data Extraction Techniques

- Extracting data from relational databases
- Handling flat files and external data sources
- SQL queries for data extraction
- Incremental vs full extraction strategies
- Performance considerations during extraction
- Case Study: Extracting sales data from multiple sources

Module 3: Data Transformation and Cleansing

- Data cleaning techniques and best practices
- Transforming data using SQL functions
- Handling duplicates and missing values
- Applying business rules in transformations
- Data type conversions and formatting
- Case Study: Cleaning and transforming customer records

Module 4: Loading Data into Databases

- Techniques for loading data efficiently
- Bulk inserts and batch processing
- Data validation during load
- Handling errors and retries
- Loading into data warehouses
- Case Study: Loading transformed data into a SQL warehouse

Module 5: Advanced SQL for ETL

- Complex joins, subqueries, and CTEs
- Window functions and aggregations
- Stored procedures and triggers for ETL
- Indexing for query optimization
- Query performance tuning
- Case Study: Automating ETL using advanced SQL queries

Module 6: ETL Automation and Scheduling

- Overview of ETL tools and automation frameworks
- Scheduling ETL jobs and workflows
- Monitoring ETL processes

- Logging and alerting best practices
- Error handling and recovery
- Case Study: Automating daily sales report ETL

Module 7: Data Modeling for ETL

- Introduction to relational and dimensional modeling
- Star and snowflake schemas
- Normalization vs denormalization
- Designing tables for ETL efficiency
- Maintaining referential integrity
- Case Study: Designing a data warehouse schema for retail data

Module 8: ETL Best Practices and Real-World Applications

- ETL documentation and standards
- Optimizing pipelines for large datasets
- Troubleshooting common ETL issues
- Aligning ETL with business intelligence goals
- Continuous improvement and maintenance
- Case Study: End-to-end ETL project implementation

Training Methodology

- Instructor-led interactive sessions for conceptual clarity
- Hands-on exercises for practical SQL and ETL skills
- Real-time projects and case studies for applied learning
- Group discussions to enhance problem-solving capabilities
- Assessment quizzes to track learning progress
- Continuous feedback and mentorship from experienced trainers

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:

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