SQL for ERP Data Extraction Training Course

Professional Development Training Course Outline

Category	Enterprise Resource Planning (ERP)	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

SQL for ERP Data Extraction Training Course is designed for professionals aiming to enhance their ability to efficiently extract, manage, and analyze data from Enterprise Resource Planning (ERP) systems using SQL (Structured Query Language). As businesses become more data-driven, the demand for skilled professionals who can manipulate and query ERP data has never been greater. This course offers hands-on training in SQL queries, data extraction techniques, and ERP system integration, with a strong emphasis on real-world application and problem-solving. It is particularly valuable for those seeking to improve decision-making through actionable data insights extracted from ERP platforms.

By the end of this training, participants will have mastered SQL techniques to work with various ERP systems, enabling them to perform advanced data extraction, aggregation, and reporting tasks. With a focus on practical scenarios, case studies, and key industry practices, this course empowers students to leverage ERP data for actionable business intelligence. SQL for ERP Data Extraction is a vital skill for business analysts, data engineers, and IT professionals looking to optimize ERP data workflows and contribute to data-driven business strategies.

Programme Curriculum

SQL for ERP Data Extraction Training Course

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Course Duration

10 days

Course Objectives

1. Learn SQL fundamentals for ERP data management and extraction.
2. Master ERP database architecture to efficiently query and extract relevant data.
3. Gain practical experience in writing advanced SQL queries for data filtering and reporting.
4. Understand ERP system data integration and the use of SQL in extracting cross-functional data.
5. Develop data extraction skills for commonly used ERP platforms like SAP, Oracle, and Microsoft Dynamics.
6. Automate regular data extraction tasks using SQL stored procedures and scripts.
7. Learn data aggregation techniques to support financial and operational reporting.
8. Explore data transformation techniques within SQL for ERP-specific data structures.
9. Implement data validation and cleansing techniques in SQL to ensure accuracy and consistency.
10. Acquire expertise in extracting real-time business intelligence (BI) from ERP data.
11. Enhance your ability to design SQL queries for complex data sets across multiple ERP modules.
12. Learn how to integrate SQL-extracted data with third-party analytics tools for enhanced reporting.
13. Master performance optimization techniques to accelerate ERP data extraction and reduce query processing time.

Target Audience

1. Business Analysts.
2. Data Engineers and Database Administrators.
3. IT professionals.
4. ERP Consultants.
5. Data Scientists.
6. Financial Analysts.
7. Supply Chain Analysts.
8. ERP End-Users.

Course Modules

Module 1: Introduction to ERP Systems and SQL

- Overview of ERP systems
- Basics of SQL and its role in data extraction
- ERP system architecture and data models
- Understanding relational databases and table structures

- Case study: Identifying key data entities in ERP systems

Module 2: Setting Up SQL Environment for ERP Data Extraction

- Installing SQL Server and ERP system integration tools
- Configuring database connections for ERP data
- SQL query optimization tools and techniques
- Accessing and managing ERP data from SQL platforms
- Case study: Best practices for ERP data security and privacy

Module 3: Writing Basic SQL Queries for Data Extraction

- SELECT statements and basic filtering techniques
- Joining tables in SQL for ERP data extraction
- Using WHERE, GROUP BY, and ORDER BY clauses
- Filtering with advanced SQL operators
- Case study: Sorting and formatting ERP data output

Module 4: Advanced SQL for ERP Systems

- Writing nested queries and subqueries
- Complex JOIN operations for cross-functional data
- Case study: Using window functions for advanced analysis
- Subsetting data with UNION and INTERSECT operations
- Advanced data filtering with conditional statements

Module 5: Data Aggregation and Reporting

- Using SQL GROUP BY for summary reporting
- Aggregate functions
- Creating time-series reports with SQL
- Case study: Creating pivot tables using SQL queries
- SQL for financial and operational KPIs

Module 6: Automating Data Extraction with SQL Stored Procedures

- Creating and managing stored procedures in SQL
- Using triggers for automatic data updates
- Case study: Scheduling regular data extraction tasks
- Error handling in SQL stored procedures
- Performance optimization for automated tasks

Module 7: Data Transformation for ERP Data Extraction

- Data cleansing and standardization in SQL
- Using CASE and CAST functions for data transformation
- Converting and formatting ERP data for reporting
- Case study: Handling null values and missing data
- Data aggregation across multiple ERP modules

Module 8: Performance Optimization for ERP Queries

- Indexing for faster query execution

- Query execution plans and optimization techniques
- Partitioning large datasets for improved performance
- Case study: Using caching to reduce query response times
- SQL optimization for ERP environments

Module 9: Data Validation and Quality Assurance

- Validating extracted data against ERP system sources
- Ensuring data consistency and accuracy
- Handling data anomalies and errors in SQL
- Case study: Implementing data validation checks in SQL queries
- Techniques for ensuring high-quality data extraction

Module 10: Real-Time Data Extraction for Business Intelligence (BI)

- Connecting ERP systems to BI tools via SQL
- Extracting real-time data for operational reporting
- Using SQL queries to create dashboards and visualizations
- Integrating SQL-extracted data with Power BI and Tableau
- Case study: Real-time analytics in ERP systems with SQL

Module 11: Cross-Module Data Extraction in ERP Systems

- Extracting data from Finance and Accounting modules
- Data extraction from HR, Payroll, and Employee Management systems
- Inventory and Supply Chain data extraction
- Customer Relationship Management (CRM) data extraction
- Case study: Extracting sales and procurement data from ERP

Module 12: Integrating ERP Data with Third-Party Tools

- Connecting ERP data with third-party ETL tools
- Exporting data from SQL to Excel, CSV, and other formats
- Integration with cloud platforms (AWS, Azure)
- Case study: Using SQL to push data into external databases
- ERP data synchronization with external systems

Module 13: Handling Large Datasets and Complex ERP Queries

- Strategies for working with large ERP data volumes
- Partitioning large tables in SQL for efficient querying
- Writing optimized SQL queries for big data in ERP
- Using SQL for parallel processing in ERP systems
- Case study: Optimizing complex queries in SAP

Module 14: Custom SQL Solutions for ERP User Requirements

- Tailoring SQL queries to meet specific business needs
- Writing SQL queries for custom ERP modules
- Developing dynamic reports with SQL parameters
- Creating SQL views and functions for recurring reports
- Case study: Handling custom data requests from business users

Module 15: ERP Data Extraction for Decision Making

- Using ERP data for informed decision-making
- SQL queries for business strategy and forecasting
- Data-driven decision-making in operations and finance
- Case study: How SQL queries drive business efficiency
- Reporting for top-level management and stakeholders

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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