ELT vs ETL Approaches 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

In the era of big data, cloud computing, and real-time analytics, organizations are increasingly shifting from traditional ETL pipelines to modern ELT architectures to enhance scalability, performance, and data-driven decision-making. ELT vs ETL Approaches Training Course provides a comprehensive exploration of Extract, Transform, Load and Extract, Load, Transform methodologies, focusing on cloud-native data platforms, data warehousing, and modern data engineering practices. Participants will gain hands-on exposure to data integration frameworks, data pipeline optimization, and high-performance data transformation techniques using trending tools and technologies.

The course emphasizes practical implementation of ELT and ETL workflows, highlighting their role in data governance, data quality, and business intelligence. With a strong focus on automation, data lakes, real-time processing, and scalable architecture, learners will develop the skills required to design efficient data pipelines aligned with enterprise data strategies. By the end of the course, participants will be equipped with industry-relevant expertise to choose, implement, and optimize ELT or ETL solutions in modern data ecosystems.

Programme Curriculum

ELT vs ETL Approaches Training Course

Introduction

In the era of big data, cloud computing, and real-time analytics, organizations are increasingly shifting from traditional ETL pipelines to modern ELT architectures to enhance scalability, performance, and data-driven decision-making. ELT vs ETL Approaches Training Course provides a comprehensive exploration of Extract, Transform, Load and Extract, Load, Transform methodologies, focusing on cloud-native data platforms, data warehousing, and modern data engineering practices. Participants will gain hands-on exposure to data integration frameworks, data pipeline optimization, and high-performance data transformation techniques using

trending tools and technologies.

The course emphasizes practical implementation of ELT and ETL workflows, highlighting their role in data governance, data quality, and business intelligence. With a strong focus on automation, data lakes, real-time processing, and scalable architecture, learners will develop the skills required to design efficient data pipelines aligned with enterprise data strategies. By the end of the course, participants will be equipped with industry-relevant expertise to choose, implement, and optimize ELT or ETL solutions in modern data ecosystems.

Course Objectives

1. Understand core differences between ETL and ELT architectures in modern data ecosystems
2. Analyze data pipeline design using scalable cloud data platforms
3. Implement efficient data integration and transformation workflows
4. Evaluate performance optimization strategies for large-scale data processing
5. Apply data governance, compliance, and data quality frameworks
6. Design real-time and batch data processing pipelines
7. Explore big data technologies including distributed computing frameworks
8. Optimize data warehousing and data lake architectures
9. Leverage automation and orchestration tools for pipeline efficiency
10. Develop skills in SQL-based transformations and in-database processing
11. Integrate machine learning workflows within ELT and ETL pipelines
12. Assess cost optimization strategies in cloud-based data solutions
13. Build end-to-end data engineering solutions aligned with business intelligence goals

Organizational Benefits

- Improved data pipeline scalability and performance
- Enhanced decision-making through real-time analytics
- Reduced data processing costs with optimized architectures
- Strengthened data governance and compliance frameworks
- Faster time-to-insight using modern data platforms
- Increased efficiency through automation and orchestration
- Better integration across heterogeneous data sources
- Improved data quality and reliability
- Enhanced business intelligence and reporting capabilities
- Competitive advantage through advanced data engineering practices

Target Audiences

- Data Engineers
- Data Analysts
- Business Intelligence Professionals
- Database Administrators
- Cloud Engineers
- IT Managers
- Software Developers
- Data Scientists

Course Duration: 5 days

Course Modules

Module 1: Fundamentals of ETL and ELT Architectures

- Overview of ETL and ELT concepts and evolution
- Key differences between ETL and ELT approaches
- Role of data warehouses and data lakes
- Understanding structured and unstructured data processing
- Modern data stack and ecosystem overview
- Case study: Transition from traditional ETL to ELT in a cloud environment

Module 2: Data Extraction and Ingestion Techniques

- Data source identification and integration strategies
- Batch vs real-time data ingestion
- APIs, streaming platforms, and connectors
- Data ingestion tools and frameworks
- Handling data latency and throughput challenges
- Case study: Designing a scalable ingestion pipeline for IoT data

Module 3: Data Transformation Strategies

- Transformation logic in ETL vs ELT
- SQL-based transformations in cloud warehouses
- Data cleansing and normalization techniques
- Data enrichment and aggregation methods
- Performance optimization for transformations
- Case study: Optimizing transformation workflows in ELT pipelines

Module 4: Data Loading and Storage Optimization

- Data loading techniques for warehouses and lakes
- Partitioning, indexing, and clustering strategies
- Storage optimization in cloud environments
- Managing data formats such as Parquet and ORC
- Incremental and full load strategies
- Case study: Efficient data loading in a distributed storage system

Module 5: Cloud Platforms and Modern Data Tools

- Overview of cloud platforms for data engineering
- Data warehouse solutions and data lake architectures
- Integration with big data tools and frameworks
- Automation using orchestration tools
- Serverless data processing concepts
- Case study: Building a cloud-native ELT pipeline

Module 6: Data Governance and Quality Management

- Data governance frameworks and policies
- Ensuring data quality and consistency
- Metadata management and data cataloging
- Data security and compliance standards
- Monitoring and auditing data pipelines

- Case study: Implementing governance in enterprise data systems

Module 7: Performance Tuning and Cost Optimization

- Identifying bottlenecks in data pipelines
- Query optimization techniques
- Resource allocation and workload management
- Cost control strategies in cloud environments
- Monitoring performance metrics and KPIs
- Case study: Reducing cloud data processing costs through optimization

Module 8: Advanced Use Cases and Future Trends

- Real-time analytics and streaming data pipelines
- Integration with machine learning workflows
- DataOps and continuous integration practices
- Emerging trends in data engineering and AI
- Hybrid architectures combining ETL and ELT
- Case study: Implementing real-time analytics for business intelligence

Training Methodology

- Interactive instructor-led sessions with real-world examples
- Hands-on labs using modern data engineering tools
- Group discussions and collaborative problem-solving
- Case study analysis and practical implementation exercises
- Demonstrations of cloud-based data platforms
- Continuous assessment through quizzes and assignments

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