Data Structure Design Training Course: Modeling & Generating Databases with SAP Power Designer

14 - 18 Jul 2025
Tokyo

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Training Center

Data Structure Design Training Course: Modeling & Generating Databases with SAP Power Designer

Ref.: 103600308_32450 **Date:** 14 - 18 Jul 2025 **Location:** Tokyo **Fees:** 6500 **Euro**

Course Overview

In today's data-driven world, organizations need structured data architecture and data modeling approaches to manage, store, and analyze vast amounts of information effectively. This data architecture training equips professionals with the skills required for data modeling best practices, covering conceptual data modeling, logical data modeling, and physical data modeling to design efficient database solutions.

The course includes database design training, focusing on enterprise data modeling, relational database design, and database schema design. Participants will learn to apply SQL database modeling, PowerDesigner training, and ERD modeling techniques to create optimized data models.

Additionally, the course integrates data governance and modeling, cloud data architecture training, and big data architecture training, ensuring relevance in modern data-driven organizations. Modules on OLAP and OLTP modeling, database normalization training, NoSQL database design course, and data migration strategies ensure comprehensive coverage.

This training is designed for those seeking data modeling certification or hands-on experience with advanced database design, agile data modeling techniques, and multi-dimensional data modeling training.

Target Audience

- Data architects and data modelers
- Database administrators DBAs
- Business analysts and data analysts
- IT professionals and software engineers
- Data governance and compliance officers
- Business intelligence specialists and cloud data engineers

Targeted Organizational Departments

- IT and data management
- Business intelligence and analytics
- Software development
- Cloud infrastructure and security
- Data governance and compliance

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Targeted Industries

- Banking and financial services
- Healthcare and pharmaceuticals
- Retail and e-commerce
- Telecommunications
- Government and public sector
- Manufacturing and supply chain

Course Offerings

By the end of this course, participants will be able to:

- Develop conceptual, logical, and physical data models for business applications
- Create database schema designs using relational and NoSQL database principles
- Apply data modeling best practices to optimize data storage and retrieval
- Implement cloud database design best practices for hybrid IT environments
- Utilize SQL database modeling to query and manage structured data
- Design data warehouse architecture and apply multi-dimensional data modeling
- Learn reverse engineering databases for data migration and integration
- Use PowerDesigner training for professional data modeling workflows
- Apply data governance and metadata management for compliance

Training Methodology

This course combines:

- Hands-on exercises and real-world case studies
- Discussions on data security and compliance in architecture
- Assessments and personalized feedback

Course Toolbox

- Course workbooks and downloadable guides
- PowerDesigner modeling templates and ERD diagrams
- SQL practice exercises for relational database design
- Online reference materials on data governance and modeling
- Cloud architecture blueprints for multi-dimensional data modeling training

Course Agenda

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Day 1: Introduction to Data Modeling and Architecture

- Topic 1: Overview of data architecture framework and best practices
- Topic 2: Conceptual, logical, and physical data models
- Topic 3: ERD modeling and relational database design principles
- Topic 4: SQL database modeling fundamentals
- Topic 5: PowerDesigner training for data model visualization
- Topic 6: Hands-on exercise - creating a conceptual data model
- Reflection & Review: Key learnings and discussions

Day 2: Database Design and Optimization

- Topic 1: Database schema design and normalization principles
- Topic 2: Physical data modeling and index optimization
- Topic 3: OLAP and OLTP modeling for performance tuning
- Topic 4: Data security and compliance in database design
- Topic 5: NoSQL database design and hybrid data models
- Topic 6: Hands-on exercise - designing a relational database schema
- Reflection & Review: Key learnings and discussions

Day 3: Cloud and NoSQL Data Modeling

- Topic 1: Cloud data architecture training and implementation
- Topic 2: Agile data modeling techniques for fast development
- Topic 3: NoSQL data modeling and multi-model databases
- Topic 4: Data migration strategies for cloud and on-premise databases
- Topic 5: PowerDesigner data modeling for cloud environments
- Topic 6: Hands-on exercise - creating cloud-based and NoSQL data models
- Reflection & Review: Key learnings and discussions

Day 4: Data Warehousing and Business Intelligence Modeling

- Topic 1: Data warehouse architecture course fundamentals
- Topic 2: Multi-dimensional data modeling for analytics
- Topic 3: Data lineage and metadata management best practices
- Topic 4: Business intelligence data modeling for reporting systems
- Topic 5: SQL for data architecture and performance tuning
- Topic 6: Hands-on exercise - designing a data warehouse schema
- Reflection & Review: Key learnings and discussions

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Day 5: Data Governance, Security, and Final Project

- Topic 1: Data security and compliance best practices
- Topic 2: Data governance framework and regulatory considerations
- Topic 3: Reverse engineering databases for integration
- Topic 4: Data integration and architecture strategies
- Topic 5: Advanced database design for enterprise applications
- Topic 6: Capstone project - building a complete data architecture model
- Reflection & Review: Course wrap-up and certification assessment

FAQ

What specific qualifications or prerequisites are needed for participants before enrolling in the course?

This course is designed for professionals with a basic understanding of databases, but prior experience in SQL, IT, or analytics is beneficial.

How long is each day's session, and is there a total number of hours required for the entire course?

Each day's session is structured to last around 4-5 hours, with breaks and interactive activities included. The total course duration spans five days, approximately 20-25 hours of instruction.

What is the difference between logical and physical data modeling?

Logical data modeling focuses on data relationships and structure without implementation details, while physical data modeling incorporates database-specific elements like tables, indexes, and views.

How This Course is Different from Other Data Modeling Courses

This course goes beyond theoretical concepts, integrating hands-on PowerDesigner training, cloud database design best practices, and data warehouse architecture strategies. It provides real-world applications in business intelligence, cloud computing, and enterprise data modeling.

Participants will work on live projects, engage in group discussions, and gain expertise in data integration and architecture strategies, SQL for data architecture, and multi-dimensional data modeling. Unlike generic courses, this training ensures practical application and certification readiness.

This structured course is the ideal pathway for business and IT professionals to master data architecture, database design, and governance best practices.

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Agile PM and Project Management Training Courses

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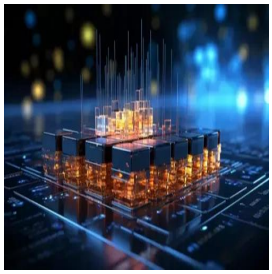
Communication and Public Relations Training Courses



Data Analytics Training and Data Science Courses

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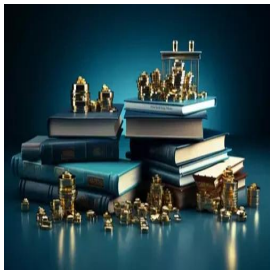
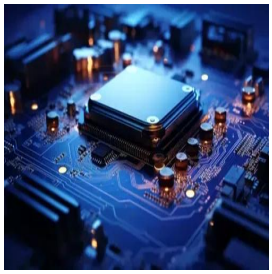


Governance, Risk and Compliance Training Courses

Human Resources Training and Development Courses



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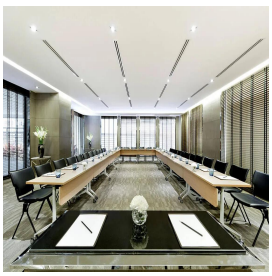

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WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.

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