Oracle 10g: Data Warehousing Fundamentals

Durata: 3 zile

Ce veti invataÚ

In this course, participants study the issues involved in planning, designing, building, populating, and maintaining a successful data warehouse. Participants learn the reasons why data warehousing is a compelling decision support solution in today's business climate. During the course, participants examine warehouse technologies; they also examine Oracle's approach to a successful data warehouse implementation by identifying proven Data Warehouse and Business Intelligence (DW and BI) technologies and tools provided by Oracle. Students are provided tours of Oracle Warehouse Builder through viewlets. Participants identify features of Oracle10g database, which aid the data warehouse implementation. Students are given a set of data warehouse implementation templates (documents such as project management plan, data models, and so on.), they analyze the case study provided to them, and answer the questions based on the case study. In addition, students will also perform self-guided practices on Analytical Workspace Manager (AWM) and Oracle Warehouse Builder. Learn To:Define the terminology and explain the basic concepts of data warehousingIdentify the technology and tools from Oracle to implement a successful data warehouseDefine the decision support purpose and end goal of a data warehouseDescribe the OLAP and Data mining techniques and toolsDevelop familiarity with the various technologies required to implement a data warehouseExplain the implementation and organizational issues surrounding a data warehouse project using a case study

Cui se adreseazaÚ

Business Analysts
Business Intelligence Developer
Data Modelers
Data Warehouse Administrator
Data Warehouse Analyst
Data Warehouse Developer

CerinteÚ

Cerinte facultativeÚ

Knowledge of database technologies, client-server
Knowledge relational server technology is suggested

Obiectivele cursuluiÚ

Define the terminology and explain the basic concepts of data warehousing
Define the decision support purpose and end goal of a data warehouse
Develop familiarity with the various technologies required to implement a data warehouse
Identify the technology and tools from Oracle to implement a successful data warehouse
Describe methods and tools for extracting, transforming, and loading data
Identify the tools for accessing and analyzing warehouse data
Identify the new features of Oracle Database 10g that aid in implementing the data warehouse
Describe the OLAP and Data mining techniques and tools
Explain the implementation and organizational issues surrounding a data warehouse project

Tematica cursuluiÚ

Copyright © 2009, Oracle. Toate drepturile rezervate.

Data Warehousing and Business Intelligence
Understanding the evolution of data warehouses from MIS
Describing the differences between OLTP and OLAP
Identifying the business drivers for data warehouses
Identifying the role of business intelligence in today's market
Recognizing the tools and technology from Oracle
Identifying the components of Oracle E-business Intelligence

Defining Data Warehouse Concepts and Terminology
Identifying a common, broadly accepted definition of a data warehouse
Describing the differences between dependent and independent data marts
Identifying some of the main warehouse development approaches
Recognizing some of the operational properties and common terminology of a data warehouse
Exploring the case study introduced

Business, Logical, and Dimensional Modeling
Describing the data warehouse modeling issues
Identifying the data structures for data warehouses
Defining business and logical models
Defining dimensional model

Physical Modeling: Sizing, Storage, Performance, and Security Considerations
Describing how to translate the dimensional model to physical model
Explaining data warehouse sizing techniques and test load sampling
Describing data warehouse partitioning methods
Understanding indexing types and strategies
Explaining parallelism in data warehouse operations
Explaining the importance of security in data warehouses
Identifying the tools and technologies provided by Oracle

The ETL Process: Extracting Data
Outlining the ETL (Extraction, Transformation, and Loading) processes for building a data warehouse
Identifying ETL tasks, importance, and cost
Explaining how to examine data sources
Identifying extraction techniques and methods
Identifying analysis issues and design options for extraction processes
Listing the selection criteria for the ETL tools
Describing Oracle's solution for ETL process

The ETL Process: Transforming Data
Defining transformation
Identifying possible staging models
Identifying data anomalies and eliminate them
Describing the importance of data quality
Describing techniques for transforming data
Listing Oracle's features and tools that can be used to transform data

The ETL Process: Loading Data
Explaining key concepts in loading warehouse data
Outlining how to build the loading process for the initial load
Identifying loading techniques
Describing the loading techniques provided by Oracle

Copyright © 2009, Oracle. Toate drepturile rezervate.

Identifying the tasks that take place after data is loaded
Explaining the issues involved in designing the transportation, loading, and scheduling processes

Refreshing Warehouse Data
Describing methods for capturing changed data
Explaining techniques for applying the changes
Describing the Change Data Capture mechanism and refresh mechanisms supported in Oracle10g
Describing the techniques for purging and archiving data and outlining techniques supported by Oracle
Outlining the final tasks, such as publishing the data, controlling access, and automating processes

Summary Management
Discussing summary management and Oracle implementation of summaries
Describing materialized views
Identifying the types, build modes, and refresh methods for materialized views
Explaining the query rewrite mechanism in Oracle
Describing the significance of Oracle dimensions

Leaving Metadata Trail
Defining warehouse metadata, its types, and its role in a warehouse environment
Developing a metadata strategy
Outlining the Common Warehouse Meta-model (CWM)
Describing Oracle Warehouse Builder’s compliance with OMG-CWM)

OLAP and Data Mining
Defining Online Analytical Processing
Comparing ROLAP and MOLAP
Describing the benefits of OLAP and RDBMS integration
Describing the benefits of OLAP for end users and IT
Define data mining
Describe the tools and technology from Oracle for OLAP and data mining

Data Warehouse Implementation Considerations
Describing the project management plan
Specifying the requirements for the implementation
Describing the metadata repository, technical architecture and other considerations
Describing post implementation change management considerations

Copyright © 2009, Oracle. Toate drepturile rezervate.