

Data Warehousing

Introduction to Data Warehousing

- Concepts of Warehousing
- Warehouse Database and Transactional Database
- Architecture of Warehouse
- Pre-requisites of Warehousing
- Advantages and Implementation of Warehousing

Database-Design

- Defining of Entry relations
- Entity definition and types
- Entity Attributes
- Entry Relation Model Designing for a Transactional Database

Creating an E-R Model –Normalization Process

- Design of Database logically and physically
- Creation of Logical Model using ERWIN data modeler
- Creation of Physical Model using ERWIN data modeler
- Data model, subject and Domains
- Applying business and Integrity constraints
- Generating database script and creating a database a database

ERWIN

The course starts with fundamentals of Data warehousing. ERWIN 4.1 data modeler tool will be taught during the period. The main parts covered are:

- Definition of a Data warehouse
- Difference between a transactional based system and a data warehouse system
- How to create a dimensional model from a transactional system?
- Creation of STAR and SNOWFLAKE schema
- Latest modeling technique like Business Dimensional Modeling (BDM)
- How to create data model ERWIN 4.1
- How to forward Engineer ERWIN data model to create DDL scripts
- How to reverse Engineer ERWIN model
- Complete example and assignment of creating a Retail Dimensional model in ERWIN

INFORMATICA

ETL-INFORMATICA Server Setup

- Power Center Repository Manager
 - Repository creation
- Connecting to New Repository
 - Create Folder
 - Edit Folder
 - Delete Folder
- Manage users, groups, and privileges
- Source and Target dependencies
- Mapping dependencies

Power Center Designer

- Defining Sources and Source types
- Defining Targets for Staging databases
- Defining Targets for Staging Warehouse
- Creating Multi-Dimensional Cubes
- Source analyzer tool
- Warehouse designer tool
- Transformation developer tool
- Maplet designer tool
- Designer Data Staging

Power Center Workflow Manager

- Setting up server for repository
- Task developer tool
- Work let designer tool
- Workflow designer tool
- Working with Sessions, Sources and Targets
- Monitoring workflow
- Performance tuning

OLAP (Online Analytical processing Report Presentations)

- Introduction to OLAP
- Relational, Multi-Dimensional, Hybrid OLAP's
- OLAP Architecture
- Reports and Types of Reports

BUSINESS OBJECTS

Supervisor Tool

- Creating OLAP Repository and Supervisor user
- Database connections
- Defining groups and users
- Defining privileges and profiles
- Broadcast agent setup
- Setting up user connection sessions

Data Warehousing (Contd...)

Designer Tool

- Creating universe, universe settings
- Testing universe
- Defining classes, objects, object types
- Advantages of user-defined classes, objects
- Designer enhancements

Business Objects Tool

- Generating reports
- Formatting reports
- Analysis methods
- Slice and Dice analysis
- Drill analysis
- Enhancements of Reports

COGNOS

Impromptu Administrator

- Database connection
- Creating catalog, Catalog folders
- Testing Catalog
- Creating conditions, calculations and prompts
- Creating users and allocating privilege
- Creating and formatting impromptu reports
- Creating impromptu query definition

Powerplay Transformer

- Creating model files
- Creating new dimensions and measures
- Editing dimensions
- Measures in Model files
- Creating power cubes
- Setting power cube properties
- Testing power cubes
- Connecting power cubes to repositories

Powerplay Reports

- Creating reports
- Formatting reports
- Drill analysis-using reports
- Cognos portfolio tool
- Cognos script editor (Macros).
- Scheduling using cognos scheduler tool

DATA STAGE

Introduction

- Role of Data stage
 - Extraction
 - Transformation
 - Loading tool in data warehouse development
- Using the client side Data stage tool set
 - Designer
 - Director
 - Manager
 - Administrator
- Importing, exporting and understanding Repository metadata
- Using parameters/Variables within Data stage jobs and routines
- Job/batch scheduling and execution

Data Stage Administrator

- Configuring data stage
- Data stage administrator
- Server properties
- Data stage project administration
 - Adding projects, deleting projects
 - Moving projects
 - Cleaning up project files
 - Project properties

Data Stage Manager

- Data stage manager overview
- Managing the Data stage repository
- Managing table definitions
- Managing Data elements
- Managing jobs and job sequences
- Managing shared containers
- Managing stages

Data Stage Designer

- About data stage
- Data stage projects
- Data stage jobs
 - Server job
 - Shared containers
 - Job sequences

Data Warehousing (Contd...)

Data Stage Director

- Starting the Data stage director
- Data stage director window
- Job status details
- Running Data stage jobs
 - Setting job options
 - Validating a job
 - Running a job
 - Stopping a job

MICRO STRATEGY

- Introduction to creation of project
- Schema object creation
 - Facts
 - Attributes
 - Hierarchies
- Introduction to advance reporting
- Advanced metrics
- Advanced filters
- Advanced prompts
- Drill maps
- Report data options
- Project and desktop preferences
- VLDB prosperities
- Project duplication wizard