

## DATASTAGE Online training Contents

### DATASTAGE ONLINE TRAINING

#### DATASTAGE 8.6 COURSE CONTENT

##### DATA WAREHOUSE FUNDAMENTALS

An introduction to Data Warehousing

Purpose of Data Warehouse

Data Warehouse Architecture

Operational Data Store

OLTP Vs Warehouse Applications

Data Marts

Data marts Vs Data Warehouses

Data Warehouse Life cycle.

##### DATA MODELING

Introduction to Data Modeling

Entity Relationship model (E-R model)

Data Modeling for Data Warehouse, Normalization process

Dimensions and fact tables

Star Schema and Snowflake Schemas.

##### ETL DESIGN PROCESS

Introduction to Extraction, Transformation & Loading

Types of ETL Tools

Key tools in the market.

##### INTRODUCTION TO DATA STAGE VERSION 7.5X2 & 8.1& 8.5

Data stage introduction

IBM information Server architecture

Data stage components

Data Stage main functions

Client components- Adding different Servers to our workspace.

##### DATA STAGE ADMINISTRATOR

Data stage project Administration

Editing projects and Adding Projects

Deleting projects Cleansing up project files

Environmental Variables

Environment management

Auto purging

Runtime Column Propagation(RCP)

Add checkpoints for sequencer

NLS configuration

Generated OSH (Orchestra Engine)

System formats like data, timestamp

Projects protect - Version details.

## DATA STAGE DIRECTOR

Introduction to Data stage Director

Validating Data stage Jobs

Executing Data stage jobs

Job execution status

Monitoring a job

Job log view

Job scheduling

Creating Batches

Scheduling batches.

## DATA STAGE DESIGNER

Introduction to Data stage Designer

Importance of Parallelism

Pipeline Parallelism

Partition Parallelism

Partitioning and collecting(In depth coverage of partitioning and collective techniques)

Symmetric Multi Processing (SMP)

Massively Parallel Processing (MPP)

Introduction to Configuration file

Editing a Configuration file

Partition techniques

Data stage Repository Palette

Passive and Active stages

Job design overview

Designer work area

Annotations

Creating jobs

Importing flat file definitions

Managing the Metadata environment

Dataset management

Deletion of Dataset

Routines

### WORKING WITH PARALLEL JOB STAGES

Database Stages

Oracle

ODBC

Dynamic RDBMS

File Stages

Sequential file

Dataset

File set

Lookup file set

Processing Stages

Copy

Filter

Funnel

Sort

Remove duplicate

Aggregator

Switch

Pivot stage

Lookup

Join

Merge

Difference between look up, join and merge

Change capture

External Filter

Surrogate key generator

Transformer

Real time scenarios using different Processing Stages - Implementing different logics using Transformer

Debug Stages

Head

Tail

Peek

Column generator

Row generator

Write Range Map Stage

Real Time Stages

XML input

XML output

Local and Shared containers

Routines creation

Extensive usage of Job parameters, Parameter Sets, Environmental variables in jobs

Introduction to predefined Environmental variables creating user defined Environmental variables and implementing the same in parallel jobs

#### **ADVANCED STAGES IN PARALLEL JOBS (VERSION 8.1)**

Explanation of Type1 and Type 2 processes

Implementation of Type1 and Type2 logics using Change Capture stage and SCD Stage

Range Look process

Surrogate key generator stage

FTP stage

Job performance analysis

Resource estimation

Performance tuning

## **JOB SEQUENCERS**

Arrange job activities in Sequencer

Triggers in Sequencer

Restability

Recoverability

Notification activity

Terminator activity

Wait for file activity

Start Loop activity

Execute Command activity

Nested Condition activity

Exception handling activity

End Loop activity

Adding Checkpoints

Jobs used in different real time scenarios.

Explanation of Sequence Job stages through different Jobs

## **IBM INFORMATION SERVER ADMINISTRATION GUIDE**

IBM Web Sphere Data stage administration

Opening the IBM Information Server Web console -

Setting up a project ion the console

Customizing the project dashboard

Setting up security

Creating users in the console

Assigning security roles to users and groups

Managing licenses

Managing active sessions

Managing logs

Managing schedules

Backing up and restoring IBM Information Server.

Additional Features

Performance Tuning of Parallel Jobs.

Data stage Installation process and setup.

Project Explanation.

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