

IBM InfoSphere DataStage Essentials v11.7

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Course Number: KM304G

Duration: 4 days

Overview

Course Description

This course enables the project administrators and ETL developers to acquire the skills necessary to develop parallel jobs in DataStage v11.7. The emphasis is on developers. Only administrative functions that are relevant to DataStage developers are fully discussed. Students will learn to create parallel jobs that access sequential and relational data and combine and transform the data using functions and other job components.

Skills Gained

- Describe the uses of DataStage, DataStage clients, and the DataStage workflow
- Describe the two types of parallelism exhibited by DataStage parallel jobs
- Describe what a deployment domain consists of, the different domain deployment options, and the installation process
- Create new users and groups
- Assign Suite roles and Component roles to users and groups

- Give users DataStage credentials
- Add a DataStage user on the Permissions tab and specify their role
- Specify DataStage global and project defaults
- List and describe important environment variables
- Navigate the DataStage Designer
- Import and export DataStage objects
- Design a parallel job in DataStage Designer
- Use the Row Generator, Peek, and Annotation stages in the job
- Compile, run, and monitor a job
- Create a parameter set and use it in a job
- Read and write to sequential files using the Sequential File stage
- Work with nulls in sequential files
- Read from multiple sequential files using file patterns
- Describe parallel processing architecture, pipeline parallelism, and partition parallelism
- Describe partitioning and collecting algorithms
- Describe the parallel job compilation process and how to use OSH (Orchestrate Shell Script)
- Explain the Score
- Combine data using the Lookup stage
- Combine data using the Merge, Join, and Funnel stages
- Sort data using in-stage sorts and the Sort stage
- Combine data using the Aggregator stage and the Remove Duplicates stage
- Use the Transformer stage in parallel jobs
- Define constraints and derivations
- Create a parameter set and use its parameters in constraints and derivations
- Perform a simple Find, Advanced Find, and an impact analysis
- Compare the differences between two table definitions and two jobs
- Import table definitions for relational tables
- Use ODBC and Db2 Connector stages in a job
- Use SQL Builder to define SQL SELECT and INSERT statements
- Use multiple input links into Connector stages to update multiple tables within a single transaction
- Use the DataStage job sequencer to build a job that controls a sequence of jobs
- Use Sequencer links and stages to control the sequence a set of jobs run in

- Pass information in job parameters from the master controlling job to the controlled jobs
- Handle errors and exceptions

Who Can Benefit

This is a basic course for project administrators and ETL developers responsible for data extraction and transformation using DataStage.

Prerequisites

You should have basic knowledge of the Windows operating system and some familiarity with database access techniques.

Audience

Course Details

Course Outline

- Unit 01: Introduction to DataStage
- Unit 02: Deployment
- Unit 03: DataStage Administration
- Unit 04: Working With Metadata
- Unit 05: Creating Parallel Jobs
- Unit 06: Accessing Sequential Data
- Unit 07: Partitioning and Collecting Algorithms
- Unit 08: Combining Data
- Unit 09: Group Processing Stages
- Unit 10: Transformer Stage
- Unit 11: Repository Functions
- Unit 12: Working with Relational Data
- Unit 13: Control Jobs