Session Plan - Informatica Power Center v10

Day 1	
Module 1: Data Warehousing Basics and Overview of Informatica Power Center	
Session	***Topic/Activity Name***
Session 1	*Training Obje*
	Basics of Data Warehousing
	Characteristics of Data Warehouse
	OLTP and OLAP systems
	Data Warehouse Architecture
	Types of Data Warehouse
	ODS v/s Data Warehouse
	Data Marts
	Data Integration using ETL
	ETL Process overview
	Data Analysis Techniques
	Data Warehouse Architecture choices
	Implementation choices
	Difference between Top Down and Bottom Up Approach
	Data Granularity
	Logical v/s Physical Data Model
	Data Modelling Techniques
	E-R Model and Dimensional Model
	What is a Fact
	Types of Facts
	Designing Fact tables
	What is a Dimension
	Types of Dimensions
	Slowly Changing Dimensions - Type 1, Type 2 and Type 3
	Star Schema, Snowflake Schema and Fact Constellation Schema
	Lab Activity: *Prepare a dimensional model for a retail case study*
	Retail Data Mart Capstone Project - *Requirement and Design Overview*
Session 2	*Introduction to Power Center*
	Service Oriented Architecture (SOA)
	Overview of Power Center 10.x Architecture
	Concept of Domain, Nodes and Grids
	Service Manager
	Application Services
	Repository Service and Integration Service
	Informatica Repository
	Metadata
	Overview of Client components
	Getting started
	Overview of Repository Manager Interface
	Lab Activity: *Create a Folder*
	Overview of Designer and Workflow Manager
	Design first mapping using Designer
	Run first workflow using Workflow Manager
	Retail Data Mart Capstone Project - *Requirement and Design Overview*
	Total
Day 2	
Module 2:	**Working with Power Center Designer and Transformations**
Session	***Topic/Activity Name***
	Objectives
	Mappings and Transformations
	Working with Relational Database sources
	Working with Flat file sources
	Lab Activity: *Analyze Source Data*
	Working with XML and SFDC sources
	Working with Relational Database targets
	Lab Activity: *Design a Target Schema*
	Working with Flat file targets

Session 3	*Active and Passive Transformations*
	Data Flow Rules
	Connected v/s Unconnected Transformation
	Understanding Transformation ports
	Source Qualifier Transformation
	Homogenous Joins using Source Qualifier
	User Defined Source Qualifier Join
	Multiple source pipelines
	Overview of Expression Transformation
	Expression Editor
	Expression functions
	Variable ports in Expression Transformation
	Lab Activity: *Create a Mapping*
	Lab Activity: *Creating Workflow*
	Lab Activity: *Start and Monitor Workflows*
	Filter Transformation
	Router Transformation
	Sorter Transformation
	Real Time Implementation Scenario: *Type 1 SCD , Type 2 SCD*
Session 4	*Aggregator Transformation*
	Aggregator with Sorted Input
	Aggregator Caches
	Lab Activity: *Sales Summary*
	Lab Activity: *Listing Order Details*
	Lab Activity: *Router Transformation*
	Joiner Transformation
	Heterogenous joins using Joiner
	Join types
	Master and Detail pipeline in Joiner
	Understanding Joiner caches
	Tips and Guidelines for Aggregator and Joiner
	Sequence Generator Transformation
	Sequence Generator properties
	Lab Activity: *Sequence Generator Transformation*
	Lab Activity: *Type 1 SCD mapping*
	Lab Activity: *Type 2 SCD mapping*
	Retail Data Mart Capstone Project - *Load Staging LayerTables / Project Velocity Standards Overview*
	Total
Day 3	
Module 2:	**Working with Power Center Designer and Transformations**
Session	***Topic/Activity Name***
Session 5	*Objectives*
	Lookup functionality
	Lookup Transformation overview
	Understanding Lookup caches
	Static and Dynamic Lookup Cache
	Lab Activity: *New Customer*
	Persistent Cache
	Use of Dynamic Lookup Cache
	Lab Activity: *Dynamic Lookup*
	Unconnected Lookup transformation
	Connected v/s Unconnected Lookup
	Joiner v/s Lookup
	Implementing Active lookup
	Update Strategy Transformation
	Lab Activity: *Updating Current Items*
	Rank Transformation Overview
	Understanding Rank caches
	Lab Activity: *Flat File Join*
	Union Transformation properties
	Normalizer Transformation overview

Session 6	*Converting columns to rows using normalizer*
	Stored Procedure Transformation overview
	Stored Procedure transformation ports
	Unconnected Stored Procedure
	Stored Procedure type
	Lab Activity: *Stored Procedure Transformation*
	Working with Transactions
	Transaction Commit Types
	Constraint Based Loading
	Transaction Control Transformation
	Other Advanced Transformations (Web Service/XML Transformations)
	Retail Data Mart Capstone Project - *Load Dimension Tables*
	Total

Day 4

Module 3:	**Working with Workflow Manager and Workflow Monitor**
Session	***Topic/Activity Name***
Session 7	*Objectives*
	Overview of Workflow Manager interface
	Understanding Tasks and Sessions
	Link conditions
	Command Task and Email Task
	Lab Activity: *Configure an Email Task*
	Lab Activity: *Configure a Command Task*
	Event Raise and Event Wait
	Lab Activity: *Event Wait and Event Raise Task*
	Control Task, Timer Task and Decision Task
	Assignment Task
	Scheduling Workflows
	Lab Activity: *Pre-SQL and Post-SQL*
	Using File Lists
	Lab Activity: *Multiple Source Files (Indirect Files)*
	Overview of Workflow Monitor Interface
	Task view and Gantt Chart view
	Stop, Abort and Restart tasks and workflows
	Monitoring session run statistics
	Analyzing session logs and workflow logs

Module 4:	**Reusability and Parameterization**
Session	***Topic/Activity Name***
Session 8	*Objectives*
	Using Reusable transformations
	Mapplet overview
	Data sources defined outside mapplet
	Data sources defined inside mapplet
	Mapplet Input Transformation
	Mapplet Output Transformation
	Mapplet with multiple output groups
	Active and Passive Mapplets
	Lab Activity: *Create a Mapplet*
	Lab Activity: *Quarterly Sales Mapping*
	Lab Activity: *Annual Sales Mapping*
	Using Reusable Tasks
	Worklet Overview
	Reusable and Non-reusable Worklet
	Objectives
	Declaring Mapping Parameters and Variables
	Initialization priority of parameters and variables
	User defined session parameters
	Service Variables and Service Process Variables
	Maintaining parameter files

	Lab Activity: *Mapping Parameters*
	System variables
	Functions to set Mapping Variables
	Lab Activity: *Mapping Variables*
	Built in and User defined Workflow Variables
	Mapplet parameters and variables
	Worklet parameters and variables
	Real Time Implementation Scenario: *Changed Data Capture using Mapping Variable*
	Real Time Implementation Scenario: *Incremental Aggregation*
	Retail Data Mart Capstone Project - *Load Facts and Aggregated Fact Tables*
	Total

Day 5	
Module 5:	**Performance Tuning and Optimization**
Session	***Topic/Activity Name***
Session 9	*Objectives*
	Preliminary steps for performance tuning
	Understanding and Using Thread Statistics
	Analyzing session performance counters
	Identifying Bottlenecks
	Methods of Bottleneck isolation
	Target and Source Optimization Techniques
	Tuning transformations and mapping design
	Memory Optimization
	Understanding and Tuning DTM Buffer
	Tuning Transformation Caches
	Session Optimization Techniques
	Partitioning Overview
	Types of partitions
	Transformation rules for partitioning
	Working with Flat file partitions
	Understanding Pushdown Optimization
	Lab Activity: *Pipeline Partitioning*
	Total

Module 6:	**Introduction to Power Center Administration**
Session	***Topic/Activity Name***
Session 10	*Objectives*
	Creating static and dynamic deployment groups
	Migrating objects
	Overview of Administration Console
	Creating Users, Groups and Roles
	Assigning Roles and Permissions
	Lab Activity 10
	Final Assessment : MCQ
	Retail Data Mart Capstone Project - *Final Review with Project documentations (TDD/UTCL/S2T)*
	Total