

Teradata 12 Course Content:35-40hours

Course Outline

TERADATA 12

Teradata Warehouse and Competitiveness

- What is Teradata-RDBMS
- Teradata 12 Vs Other versions
- Teradata History
- Teradata in the Enterprise
- Teradata Users & Scalability
- Teradata competitiveness with other RDBMS
- (Oracle, SqlServer etc)
- Teradata Warehouse

Discussion on interview and certification questions

Teradata Architecture and Components

- PDE(Parallel Data Extension)
- Vprocs(Virtual Processors)
- AMP(Access Module Processing)
- Board less Bynet
- TDP(Teradata Directory Program)
- CLI(Call Level Interface)
- TPA(Trusted Parallel Application)

Going in depth by explaining the process of SQL statement execution

Various Architectures

- Node Architecture(Shared Nothing)
- SMP Architecture
- MPP Architecture
- Parallelism Architecture

Benefits and Types

Data Recovery and Protection

- Object Locks
- Various locks for simultaneous access
- RAID 1
- RAID 5
- Disk Arrays
- Fall Back
- Clique
- AMP Clustering
- Journals
- Recovery Journal
- Trasient Journal
- Permanent Journal
- Before Journal
- After Journal

Answering various recovery questions

Teradata Storage and Retrival Architectures

- Request Processing
- Syntaxer
- Resolver
- Security Module
- Optimizer
- Step Generator
- GNC Apply
- Dispatcher
- Primary Index
- Hash algorithm
- Row Hash
- DSW
- Hash Map
- Hash Bucket

- Reaching V disk

Teradata Indexes

- Primary Index
 - Unique
 - Non unique
 - Partitioned
- Secondary Index
 - Unique
 - NonUnique
 - Hash, Join, Value Ordered
 - Skewness
 - Secondary Index Sub table
 - Accessing Records via Primary Index
 - Accessing records via Secondary Index
 - Keys Vs Indexes

Full Real time scenarios and explaining

Teradata Sql Reference

- Fundamentals
- Data Types and Literals
- Data Definition Statements
- Data Manipulation Statements

Explaining with proper examples

Teradata Functions and Operators

- String Functions
- Format Function
- Cast Functions
- Group & Aggregate Functions
- With & with by clauses

Practices of this section

Teradata Transactions

- Implicit Transaction

- Explicit Transaction

Performance Tuning and Explain Utility

- Explain Usage
- Collecting Statistics
- Tuning SQL Performance
- Usage of PMON

Explaining various SQL statements

Joins and Unions

- Inner Join
- Left Outer Join
- Right Outer Join
- Full Outer Join

Detailed explanation

Join Strategies

- Product Join
- Merge Join
- Hash Join
- Nested Join

Questions of this section

Teradata Basic Commands

- HELP
- SHOW
- EXPLAIN
- COLLECT STATISTICS

Teradata Objects

- Tables
- SET table
- Multi Set table
- Volatile tables
- Global Temporary tables
- Derived tables

- Views
- Macros
- Stored Procedures
- Triggers

Practices and FAQs of this session

Teradata spaces

- PERM space
- SPOOL space
- TEMPORARY space
- Teradata User and managing

Practical Examples

Teradata Transaction Modes

- BTET
- ANSI
- Interactive
- Batch

Load and Unload Utilities & Tools

- Teradata Sql Assistant(Queryman)
- Teradata Performance Monitor
- Teradata BTEQ

- Batch Scripts with samples
- Branching and Looping
- Importing data through scripts
- Exporting data through scripts
- Error handling

Explanation with proper debugging

- Teradata Fast Load

- Various Phases of Fast Load
- Advantages and Process
- Limitations of Fast Load
- Sample Scripts

Real time Issues and resolving it



- Teradata Multi Load
- Various Phases of Multi Load
- Limitations of Multi Load
- Working with multiple tables
- Applying various operations
- Sample Scripts

Real time Issues and solving it

- Teradata Parallel Data Pump
- Limitations of TPump
- Overview of TPump
- Sample Scripts
- Teradata Fast Export
- Exporting Data
- Passing Parameters
- OUTMODS
- Sample Scripts
- Utility Vs Parallelism

Introduction to

- Answering AD-hoc queries and FAQs
- Covering DBA Concepts

Concentrating on Performance Tuning