#### **Teradata 14 Certification Exams Objectives**

The high level objectives represent the general content areas. The more detailed information below the objective indicates representative topic areas. All Teradata 14 functions and features that fall within the stated objective areas are eligible topics on an exam.

#### **TE0-144 Teradata 14 Database Administration**

- System Software Setup and Parameters
  - o Identify the functionality provided by DBSControl.
  - o Identify the functionality provided by ctl.
  - o Identify the functionality provided by DIP.
  - Identify the functionality of the RECONFIG Utility.
- User and Security Management
  - Given a scenario, identify the effects of granting access rights.
  - Given a scenario, identify the effects of revoking access rights.
  - Explain the options for limiting access rights table growth.
  - Given a scenario, identify the correct use of views to limit row or column accessibility.
  - Given a scenario, identify the process to locate a security violation, security breach, or password violation.
  - Given a scenario, determine how roles should be used in relation to security management.
  - Given a scenario, determine how profiles should be used.
  - Identify the methods of user authentication.
  - Identify a situation where row level security is appropriate.

 Identify the new constraints for row level security (readclassification UDF).

# • Session Management

- Given a scenario, identify the steps to solve session management problems.
- Given a scenario using a web-based, mainframe, or BI application, identify the function that reduces authentication time.
- Given a shared userid scenario, identify the feature that uniquely identifies the user.
- o Identify the usage and benefits of a trusted session.
- Given a scenario, analyze response time and throughput.

#### Load and Extract

- Given a scenario, identify which load utility to use.
- Identify the unique features of Teradata Parallel Transporter.
- Determine how to control utility limits.
- Given a load utility failure, determine recovery procedures.

#### System Administration Tools

- Given a scenario, identify the management and maintenance tool that should be used (Teradata Administrator, Viewpoint, Teradata Multi-System Manager (TMSM), etc).
- Given a scenario, identify the analysis tool that should be used (Show Locks, Recovery Manager, Teradata Index Wizard, Teradata Statistics Wizard, Teradata System Emulation Tool, Teradata Visual Explain, Locking Logger, etc.
- Given a scenario, identify the resource that should be used to assess the situation (SQL hash functions,

Access Logging, Data Dictionary, ResUsage, DBQL, etc.).

Identify the functionality provided by Ferret.

# • System Workload Analysis and Management

- Given a scenario including a system bottleneck, identify tools/resources to determine the cause of the bottleneck.
- Explain the collection and analysis of AMPUsage data in problem resolution.
- Given a scenario, identify which ResUsage tables to use for problem identification.
- Given a scenario, identify alternative workload management methods and parameters that the Priority Scheduler can use for a system running SLES 11.
- Given a scenario, identify the Database Query Log (DBQL) tables and logging options that should be used to resolve the problem.
- Given a scenario, identify the Workload Designer features that should be used for a system running SLES 11.
- Identify the account string expansion characters that should be used to capture the appropriate level of data.
- Identify characteristics of AMP Worker Tasks (AWTs).
- Identify the capability of the Workload Designer tool for analyzing and managing workloads for systems running SLES 11.

# <u>Performance Optimization</u>

- Describe the benefits of capturing, creating, and maintaining an historical operational repository from Dictionary tables.
- Given a scenario of aborting a rollback, identify the impact on the table.

- Identify the benefits, features and utilizations of Extrapolated and propagated statistics.
- o Given a scenario, identify the type of statistics to use.
- Given a query and the resulting rows in DBQL, identify potential areas for improvement.
- o Identify characteristics of a tactical query.
- o Identify causes of poor query performance.
- o Identify causes of poor system performance.
- Identify conditions when collecting multiple statistics in a single request would be beneficial.

# Capacity Management and Planning

- Identify the inputs that need to be collected for future capacity planning.
- Identify what is monitored to diagnose immediate capacity shortfalls.
- Identify the causes of a system running out of disk space.
- Given a scenario, identify potential solutions to capacity shortages.
- o Calculate the space needed for tables and subtables.
- Given a scenario, identify the implication of adding compression.
- o Identify methods for conserving disk space.

## Business Continuity

- Given a scenario including a type of data protection, identify how the data will be protected or recovered.
- Describe the features and functions of the archive, recovery, restore, and copy operations.
- Describe the features and functions of Online Archive.
- Describe the features and functions of Partition Archive and Restore.

- Given a scenario including a component failure and protection types, identify which data is available.
- Describe the features and functions of the online reconfiguration utility.

#### • Object Maintenance

- Identify the impact of altering table attributes and constraints.
- Given a scenario, identify the outcome of partition maintenance.
- Identify the archive and recovery implications of user defined functions, table functions, user defined types, and stored procedures.
- o Identify maintenance implications of triggers.
- o Identify the actions taken using object use count.