

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.

TE0-141 Teradata 14 Basics

- Data Warehouse Architectures
 - Describe the layers of the Enterprise data warehouse architecture.
 - Identify the components of a data warehouse architecture.
 - Contrast centrally located architectures with physically distributed architectures, such as an appliance.
 - Determine the benefits of centralized data warehouses vs. noncentralized data warehouses.
 - Describe the basic concepts of Teradata Active Solutions (e.g., Active Load, Active Access, Active Events, etc.)
 - Describe the approach of building an application data model vs. Enterprise data model.
- Relational Database Concepts
 - Define the terms associated with relational concepts.
 - Describe the advantages of a relational database.
 - Describe the differences between star schema and third normal form logical models.
 - Describe the characteristics of row vs. set processing.
- Teradata RDBMS Components and Architecture
 - Describe the features or benefits of the Teradata technology.
 - Describe the functionality of components of the Teradata technology.

- Identify the communication interfaces from external applications to Teradata.
- Identify application programming interfaces.

Key words: *AMPs, PEs, BYNET and ODBC, JDBC, MOSI, mTDP*

- Database Managed Storage
 - Explain the effects of the Primary Index on data distribution and organization.
 - Explain the effects of No Primary Index on data distribution and organization.
 - Describe the differences between Primary Index and Primary Key.
 - Describe the differences between non-partitioned, single level, and multi-level partitioned tables.
 - Identify the benefits of Teradata automatically managed storage vs. DBA manually managed distribution techniques.
 - Define perm space, spool space, and temp space.
 - Describe the concept of multi-temperature data.
 - Identify the storage optimization techniques that exist in Teradata.
 - Identify the differences between Columnar and Row storage.
- Data Access Methods
 - State the reasons for defining a UPI (Unique Primary Index) vs. a NUPI (Non-Unique Primary Index).
 - State the reasons for defining a USI (Unique Secondary Index) vs. a NUSI (Non-Unique Secondary Index).
 - Identify the reasons for using a primary index versus no primary index.
 - Describe the trade-offs between Index access and Full Table Scans.

- Describe the operation and/or causes of Full Table Scans.
- State the reasons for defining a PPI (Partitioned Primary Index) and/or Multi-level Partitioned Primary Index.
- Describe the benefits of join indexes.
- List the types, levels, and functionality of locking provided by Teradata.
- Identify the reasons for choosing between Columnar and row storage.
- Data and Performance Availability Features
 - Describe hardware specific data and performance protection techniques.
 - Explain the concept of FALLBACK tables.
 - Describe how Transient Journals ensure data integrity.
 - Describe the concept of node failover.

Keywords: journals, node failover, cliques, hot standby, RAID1

- Teradata Tools and Utilities
 - Identify the features and functions of data integration utilities.
 - Identify the features and functions of the administering and monitoring tools available within the Teradata product suite.
 - Identify the features and functions of the access tools available within the Teradata product suite.
 - Identify the features and functions of the Teradata ARC utility.
 - Identify the tools in the Teradata Analyst Pack.
 - Identify the features and use of Unity Director.
 - Identify the features and use of Unity Data Mover.
- Workload Management

- Describe the characteristics of work types that Teradata supports.
- List the purposes of workload management.
- Describe the characteristics of response time vs. throughput.

Keywords: response time, throughput, tactical, strategic, row vs. set processing, workload management tools (TASM, TDWM, Priority Scheduler)

- Security and Privacy
 - Identify security mechanisms available to Teradata.
 - Identify privacy mechanisms available within Teradata.

Keywords: LDAP, single sign-on, passwords, views, macros, UDFs, row level security