Summary highlights

Congratulations! You have completed this lesson. At this point, you know that:

- An instance serves as both a logical and configuration boundary within a relational database system.
- A relational database comprises related objects used for storing, managing, and accessing data organized within schemas.
- Schemas logically group various database objects like tables, views, functions, and triggers, with user schemas containing user-defined objects and system schemas containing configuration and metadata.
- Large tables can be partitioned across multiple partitions to optimize performance.
- Database objects encompass the items existing within the database, including tables, views, and functions.
- Primary keys enforce the uniqueness of rows in tables, while foreign keys establish relationships between tables.
- Indexes, essential for optimizing database performance, are data structures facilitating quick retrieval of specific rows based on certain criteria.
- Indexing involves storing pointers to rows in a table, aiding the SQL processor in swiftly locating requested data.
- Indexes should be created judiciously, balancing advantages against potential disadvantages.
- Normalization, including first (1NF), second (2NF), and third (3NF) normal forms, reduces redundancy and enhances data consistency by organizing data logically.
- Entity integrity constraints ensure the uniqueness of primary key values, while referential integrity constraints specify table relationships.
- Semantic integrity constraints maintain the correctness of data meaning, and domain constraints enforce valid attribute values.

- Null constraints mandate non-null attribute values, and check constraints restrict accepted attribute values.