

coursera

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Summary & Highlights

Congratulations! You have completed this lesson. At this point in the course, you know:

The objects in a Relational Database Management System (RDBMS) object hierarchy include:

- **Instances.** This is a logical boundary for a database or set of databases where you organize and isolate database objects and set configuration parameters.
- **Relational databases.** This is a set of objects used to store, manage, and access data.
- **Schemas.** A user or system schema is a logical grouping of tables, views, nicknames, triggers, functions, packages, and other database objects. Schemas provide naming contexts so that you can distinguish between objects with the same name.
- **Database partitions.** You can split very large tables across multiple partitions to improve performance.
- **Database objects.** Database objects are the items that exist within the database, such as tables, constraints, indexes, views, and aliases.

Primary key and Foreign Keys have several uses:

- Primary keys enforce uniqueness of rows in a table, whereas Foreign keys are columns in a table that contain the same information as the primary key in another table.
- You can use primary and foreign keys to create relationships between tables. Relationships between tables reduce redundant data and improve data integrity.
- Indexes provide ordered pointers to rows in tables and can improve the performance of SELECT queries, but can decrease the performance of INSERT, UPDATE, and DELETE queries.

Normalization reduces redundancy and increases consistency of data. There are two forms of normalization:

- **First normal form (1NF).** In this form, the table contains only single values and has no repeating groups.
- **Second normal form (2NF).** This form splits data into multiple tables to reduce redundancy.

You can define six relational model constraints:

• **Entity integrity constraint.** Ensures that the primary key is a unique value that identifies each tuple (or row.)