



Relational Database Concepts

Hands-on Lab Requirements

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Objectives

- Identify the purpose of your database
- Identify the entities and attributes of your database tables (five tables).
- Define the constraints for your tables.
- Create an Entity Relationship Diagram (ERD) for a small database of five tables.
- Translate the ERD into tables.
- Use SQL*Plus to connect to an oracle database.
- Create physical objects in a database using a script.
- Create a user account.
- Load data into tables using a script.
- Retrieve data from tables.
- Capture output to a log file.



Hands-on Lab Requirements

- Use the strategies and principles of database design to develop a small database.
- You will use data modelling tools such as SQL Developer Modeler and ER Assistant to design a small database of 5 tables by developing an Entity Relationship Diagram (ERD).
- The ERD is a graphical way of presenting the database that you are will develop.
- You will translate your ERD into DDL statements – data definition language, so you'll be going from the graphical representation to defining the tables and c columns using database conversion and refinement rules.
- Graphical representations are important because it is more cost effective and efficient to modify a database design on an ERD than it is to change database objects after they have been created on disk.



Hands-on Lab Requirements

- You will capture the DDL statements in a script which you will run against your database to create your database objects on disks.
- You will load data into the table after you have created your database objects.
- You will retrieve the data you loaded into your database to answer a question using simple SQL select statements.
- This is the fundamental level of database design and development.
- The exercises and solutions in this Lab simulate real-life database design and development goals.