

# **Practices for Lesson 19: Altering an Existing Design**

## **Chapter 19**

## Practice 19-1: Re-Engineer the HR Schema

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### Task

Perform the following tasks in Oracle SQL Developer Data Modeler:

1. Import all the tables in the `hr` schema from the data dictionary.
2. Reverse engineer to create a logical model.
3. Add the `DEPENDENTS` entity with the following attributes: `ID`, `Name`, and `Birthdate`. Create a relationship between `EMPLOYEES` and `DEPENDENTS`. `ID` is the unique identifier. You may import the `domains.xml` file from the solutions directory, and use the domains in the file as the data types for some of your new attributes.
4. Add `COST_CENTER` to the `DEPARTMENTS` entity.
5. In the `EMPLOYEES` entity, move `HIRE_DATE` above the `EMAIL` attribute.
6. Create a 1:N relationship between `EMPLOYEES` and `DEPENDENTS`.
7. Forward engineer to a new relational model.
8. Compare the relational model with what is currently in the database.  
**Hint:** Run the import from the data dictionary.
9. Preview the DDL. Were the correct `ALTER` statements generated?