

# **Practices for Lesson 14: Putting It All Together**

## **Chapter 14**

## Practice 14-1: Develop and Validate Your ERD

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### Task

In this practice, you develop and validate an ERD in Oracle SQL Developer Data Modeler using the following information requirements:

Cascade Cruises has decided that their manual system of booking passengers onto their ships will not hold up when they add a new ship next month. They currently have two ships (not including the new one) and will probably expand to five or six by 2015. They are named “Goodsea” and “Goodwind,” and the new one will be called “Goodsky.” Each ship has a specific passenger capacity and registry. Registry is the country that the ship is registered with. They do not need to worry about tonnage or draft or anything else about the ship.

Each year Cascade puts out a brochure with information about their cruises. Every cruise has a name and duration in number of days. They offer three, seven, eleven, and fourteen day cruises. Each cruise also has a specific ship assigned to it; some people want to go on only the newer ships. For each cruise, there are different port stops. A three-day cruise will have only one stop, always on the second day of the cruise; a seven-day cruise will have three port stops. Cascade varies port stops depending on where the cruise originates. For example, the Los Angeles, CA, cruises go to Mexico ports like Cabo San Lucas and Acapulco, the Miami cruises go to the Bahamas and the Virgin Islands, and the Anchorage cruises make stops all through Alaska. Depending upon the length of each cruise, the cruise will make port calls on different days out.

Passengers book a given cruise, which has a certain length and number of ports. Depending on the cruise that they pick, customers are informed of the available cabins. After the passenger chooses a cabin, they can get a price. The price also depends on the number of people in the cabin and the “class” of the cabin. After the cabin is booked, it is then removed from the list of available cabins unless the passenger indicated that they want to share with someone else. If the cabin can hold four people, and they are traveling alone, the price will be cheaper if they share. After passengers are booked and a deposit is received, the travel agent who made the reservation will receive the commission for the cruise.

## Practice 14-2: Develop and Validate Your ERD (Optional)

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### Tasks

In this practice, you develop and validate an ERD in Oracle SQL Developer Data Modeler using the following information requirements:

Larry Craig, a senior partner at Craig and Associates, a large diversified law firm, handles a wide variety of cases including traffic violations, domestic disputes, civil suits, and homicide cases.

The firm has just hired a database administrator to organize and track various data, because the firm grew faster than expected and they have so many cases to manage documents for.

The firm is made up of departments such as criminal, misdemeanor, and civil. Each case is assigned a particular department for administrative purposes. Attorneys are also assigned to a particular department, but this is only for billing/payroll purposes, because an attorney can work on cases in other departments.

A history of the case is maintained that includes a log of events and the date that the event becomes effective. Cases have to be identifiable by a unique number, which appears on the list with every event date and event description. Events have special codes like 011 Meet with Client, 012 Status conference, or 013 Preliminary Trial. Every case must have an event status.

The firm would like to keep track of important information associated with a case, including the department to which it is assigned and a brief description. After a case has been closed, it may be reopened at some future date. A new case number should be assigned to reopen cases, but the previous case number should be maintained so that the history of a case can be maintained.

The firm would like to keep track of what role a particular party plays in the context of a particular case. The kinds of people that may be involved in cases include judges, eyewitnesses, defendants, and attorneys. For example, the firm is working for the defendant on a murder case. One attorney is assigned to the case, there is a judge presiding over the case, and there is an eyewitness. As a result, there are four people who are party to the case. Parties should be identified by a unique ID, name, and date of birth. A given party can serve in different roles in different cases, but a party can only serve in one role on a given case.