

# **Practices for Lesson 11: Normalizing Your Data Model**

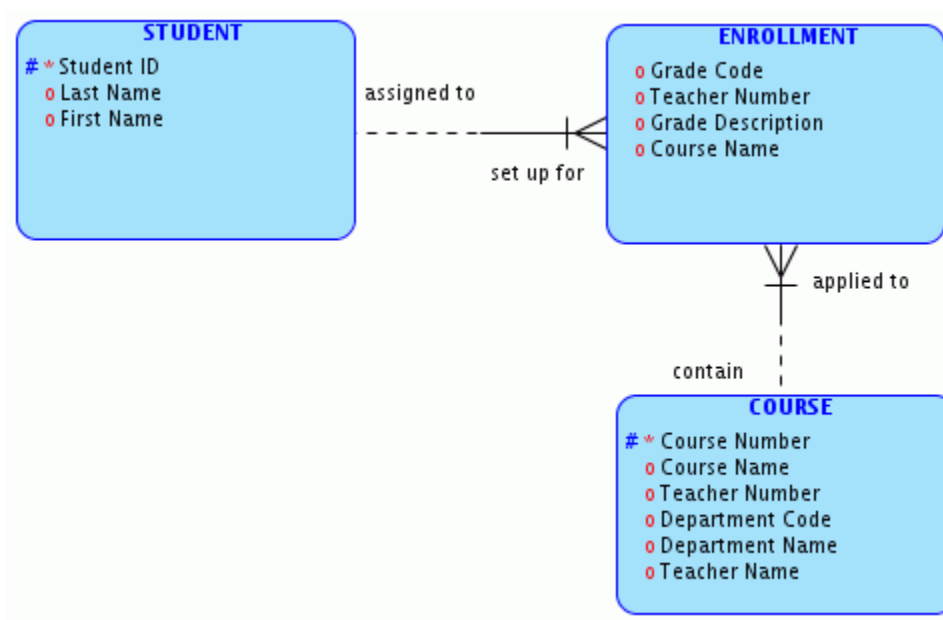
**Chapter 11**

## Practice 11-1: Normalize an ERD

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### Task

For the following ERD, evaluate each entity against the rules of normalization, identify the misplaced attributes, and explain which rule of normalization each misplaced attribute violates. Then redraw the diagram in Oracle SQL Developer Data Modeler.



## Practice 11-2: Validate an ERD for Normalization

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### Tasks

For the following ERD, evaluate the following unnormalized data and develop an entity relationship diagram in SQL Developer Data Modeler that is normalized to third normal form.

| User ID | User Name | Message ID | Recorded Date | Subject         | Text          | Server ID | Server Name |
|---------|-----------|------------|---------------|-----------------|---------------|-----------|-------------|
| 2301    | Smith     | 54101      | 05/07         | Meeting Today   | There is...   | 3786      | IMAP05      |
| 2301    | Smith     | 54098      | 07/12         | Promotions      | I like to...  | 3786      | IMAP05      |
| 2301    | Smith     | 54445      | 10/06         | Next Assignment | Your next...  | 3786      | IMAP05      |
| 5607    | Jones     | 54512      | 06/07         | Lunch?          | Can You...    | 6001      | IMAP08      |
| 5607    | Jones     | 54101      | 05/07         | Meeting Today   | There is...   | 6001      | IMAP08      |
| 5607    | Jones     | 54660      | 12/01         | Jogging Today?  | Can you...    | 6001      | IMAP08      |
| 7773    | Walsh     | 54101      | 05/07         | Meeting Today   | There is...   | 9988      | EMEA01      |
| 7773    | Walsh     | 54554      | 03/17         | Stock Quote     | The latest... | 9988      | EMEA01      |
| 0022    | Patel     | 54101      | 05/07         | Meeting Today   | There is...   | 9988      | EMEA01      |
| 0022    | Patel     | 54512      | 06/07         | Lunch?          | Can you...    | 9988      | EMEA01      |