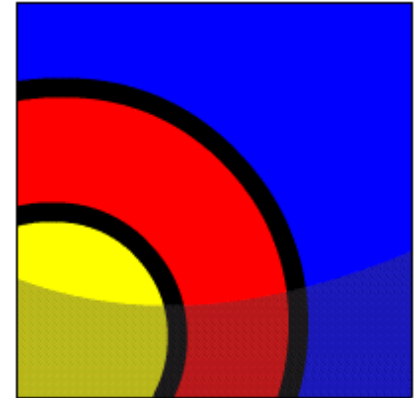


# Documenting Business Rules

# What Will I Learn?

**In this lesson, you will learn to:**

- Define and compose a structural business rule
- Define and compose a procedural business rule
- Recognize that some business rules will require programming
- Diagram business rules when they can be represented in an ER model



### Why Learn It?

One of the primary goals of data modeling is to ensure that all pieces of information that are required to run a business are recognized.

Identifying and documenting business rules are keys to checking your data model for accuracy and completeness.

It is important to recognize that not all business rules can be represented in the ERD. Some business rules must be implemented by programming.



### **Tell Me / Show Me**

#### **Two Types of Business Rules: Structural and Procedural**

Structural business rules indicate the types of information to be stored and how the information elements interrelate.

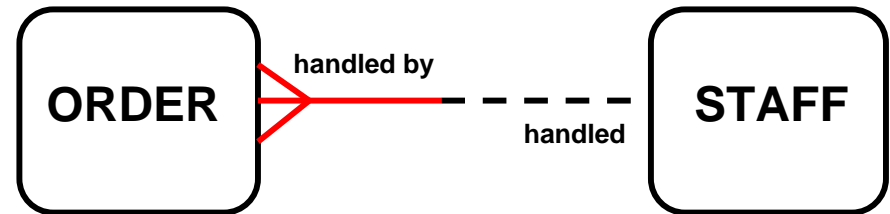
Procedural rules are workflow or business process related.

Structural business rules can nearly always be diagrammed in the ERD. Some procedural business rules cannot be diagrammed, but must still be documented.

Many procedural business rules are related to time: event A must happen before event B.

## Tell Me / Show Me

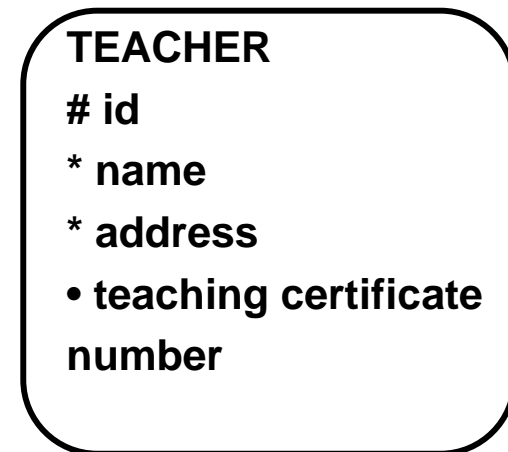
Structural business rules indicate the types of information to be stored and how the information elements interrelate.



### Structural Business Rule examples:

All orders at a restaurant must be handled by a staff member (specifically, an order taker). There is no self-service ordering system.

All teachers at our school must possess a valid teaching certificate.



### Structural Business Rules

# Tell Me / Show Me

### Discussion:

What kinds of rules does your employer have that affect you?

Each shift I work must be documented on a time clock punch card.

Each shift must be supervised by a manager.

Our school has many business rules:

Is it reasonable/effective for a class not to have a teacher assigned?

Is it reasonable/effective for two students to have the same student id number or no student id number at all?

Is it reasonable to schedule a teacher to teach a class if no students are enrolled?

Is it reasonable to allow students to come to school if they are not enrolled in any (one or more) classes?

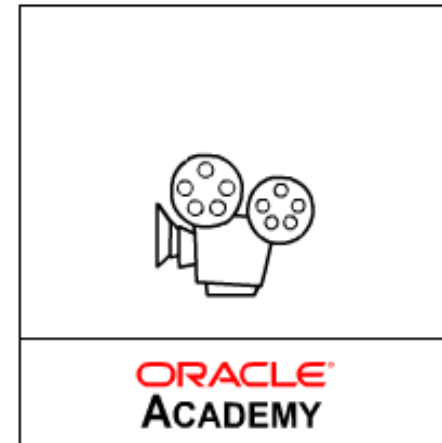
### Tell Me / Show Me

Procedural business rules are workflow or process related.

#### **Procedural Business Rule Examples:**

Initial contact with the client from DJs on Demand must be made by the project manager.

Approval for travel requests to an event must be signed by the project manager for that event.



**sdm\_s04\_l04\_a01**

# Tell Me / Show Me

## Discussion

- Students must have studied algebra and geometry in order to sign up for trigonometry. Could you represent this in the ERD?
- How would you implement this with programming?
- If the student had taken the subjects, can you think of an additional business rule that a school may want in this scenario?



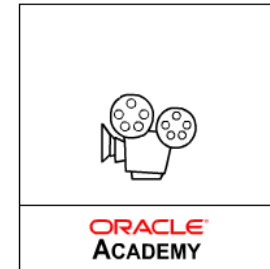
### Tell Me / Show Me

In the process of developing a conceptual data model, not all business rules can be modeled. Some rules such as the two listed below must be implemented by programming as processes that interact with data:

**any employee whose overtime exceeds 10 hours per week must be paid 1.5 times the hourly rate**

or

**customers whose account balances are 90 days overdue will not be permitted to charge additional orders**



sdm\_s04\_l04\_a02

# Tell Me / Show Me

## Terminology

Key terms used in this lesson include:

Business rule

Procedural business rule

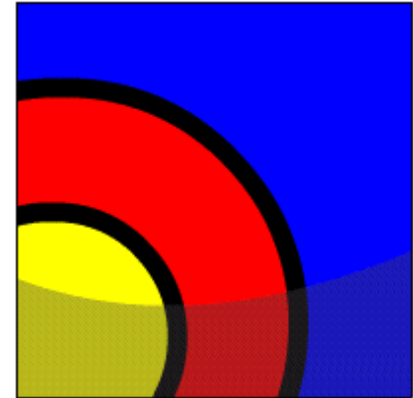
Structural business rule



### Summary

**In this lesson, you have learned how to:**

- Define and compose a structural business rule
- Define and compose a procedural business rule
- Recognize that some business rules will require programming
- Diagram business rules when they can be represented in an ER model



# Summary

## Practice Guide

The link for the lesson practice guide can be found in the course outline.

