



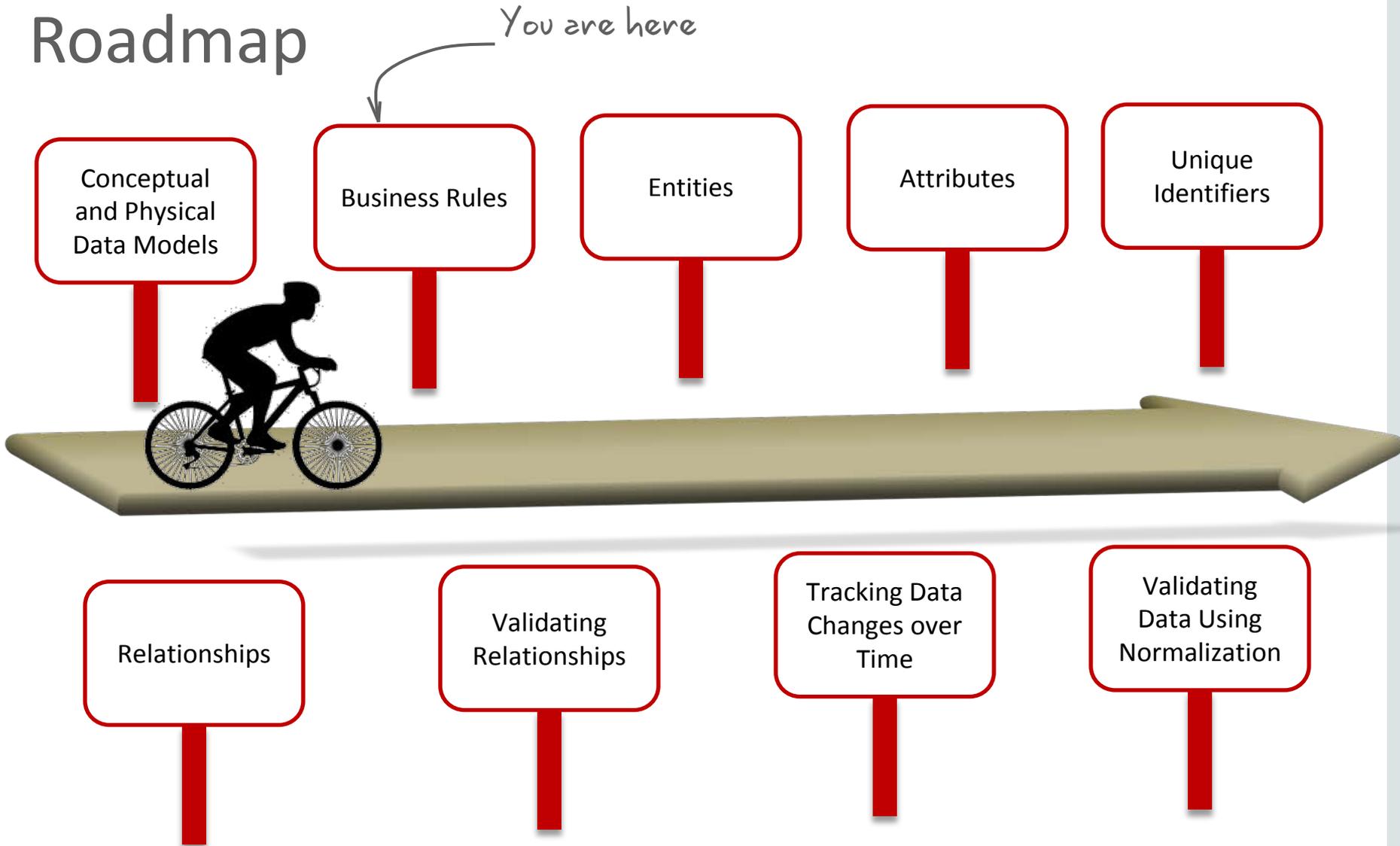
# Database Foundations

3-2

Business Rules



# Roadmap



# Objectives

This lesson covers the following objectives:

- Describe business rules



# Business Rules

- A business rule is a statement that defines or constrains some aspect of the business.
- It is used to define entities, attributes, relationships, and constraints.
- It includes rules and policies that define how a business operates and handles its day-to-operations.
- There are two types of business rules:
  - Structural
  - Procedural
- Example: All orders must have a Contact Number.

# Sources of Business Rules

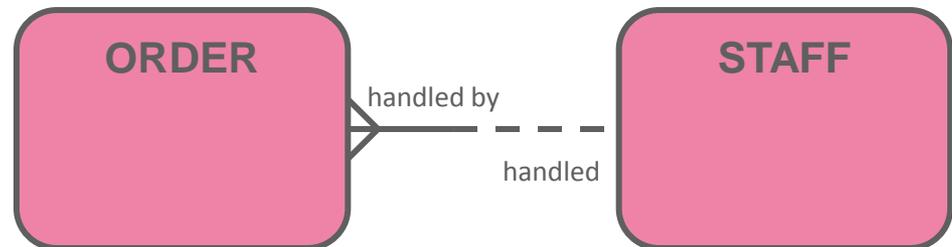
- Top management and managers
- Written documentation
  - Procedures
  - Standards
  - Operations manuals
- Direct interviews with end users

# Structural Business Rules

- Structural business rules indicate the types of information to be stored and how the information elements interrelate.
- These rules can always be diagrammed in the ERD.

# Structural Business Rules: Examples

- A sales record includes product, buyer, quantity, price, and discount.
- All restaurant orders must be handled by a staff member (specifically, an order taker).



# Library Case Scenario

Is it reasonable/effective for two members to have the same member ID or no member ID?

Is it reasonable/effective for two books to have the same book ID number or no book ID number at all?



# Procedural Business Rules

- Procedural rules deal with the prerequisites, steps, processes, or workflow requirements of a business.
- Many procedural business rules are related to time: Event A must happen before event B.
- Some procedural business rules cannot be diagrammed, but must still be documented so that they can be programmed later.

# Procedural Business Rules: Examples

- An online store might not accept a next-day delivery order if the order is received after 3:00 PM.
- Approval for travel requests to a conference must be signed by the manager.

# Library Case Scenario

Books must be returned to the library within 30 days.

Members who do not return the book by the due date will not be permitted to borrow another book.



# Additional Programming

Some rules, such as the following, must be implemented by programming them 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.

# Summary

In this lesson, you should have learned how to describe business rules.

