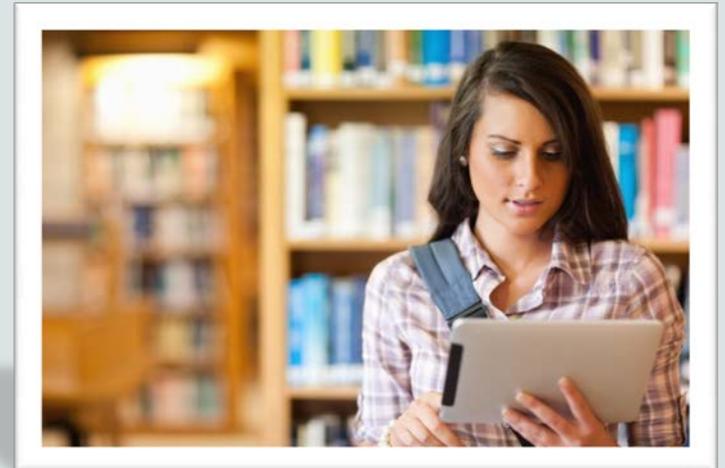




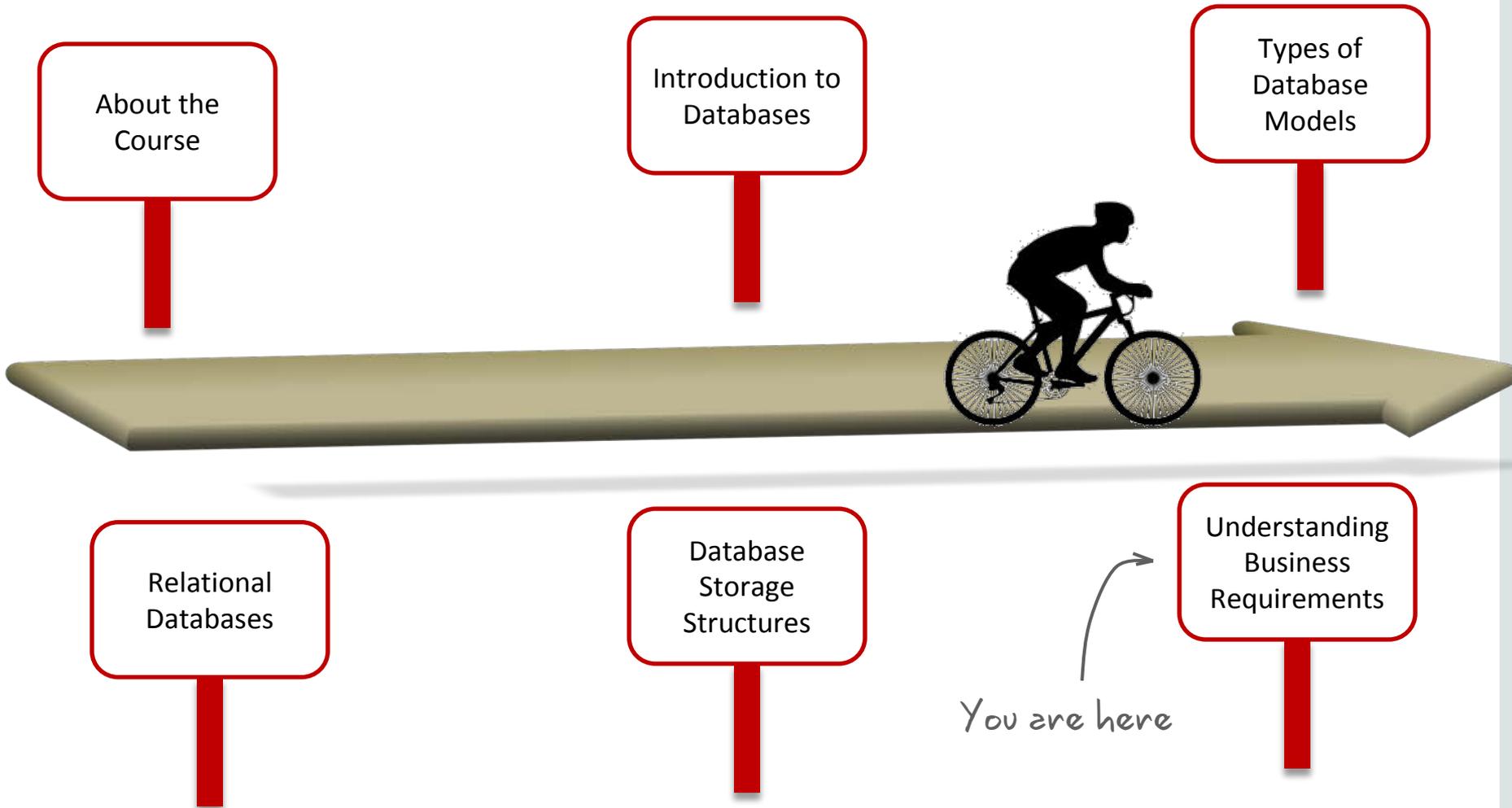
Database Foundations

1-6

Business Requirements



Roadmap



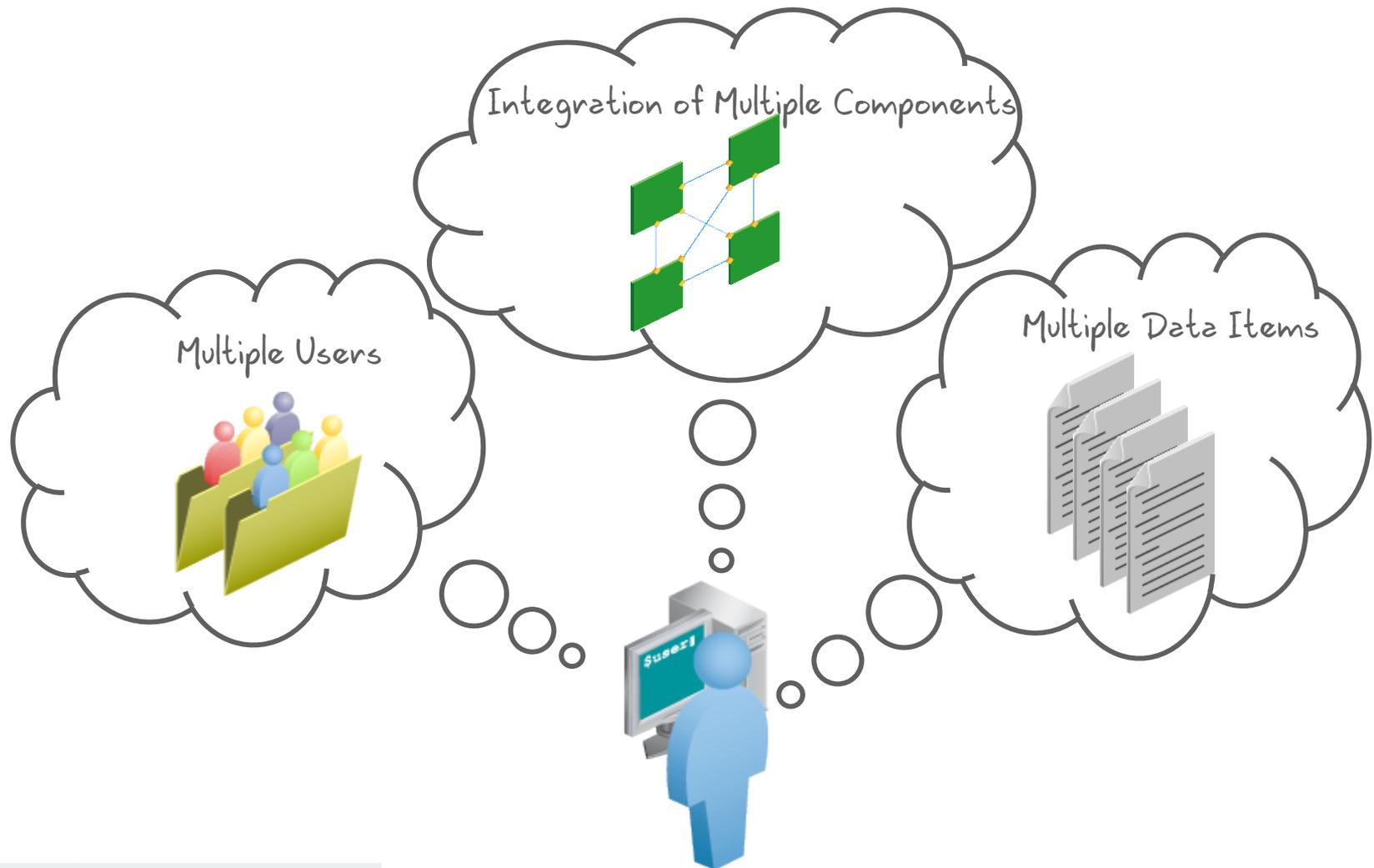
Objectives

This lesson covers the following objectives:

- Explain the need for a database solution
- Describe the importance of business rules
- Identify guidelines and examples of writing business rules



Why Do I Need a Database Solution?



Case Scenario: Need a Database Solution

	Student ID	Sport 1	Price 1	Sport 2	Price 2
Record 1	ST0001	Tennis	\$100	Badminton	\$150
Record 2	ST0002	Soccer	\$175	Tennis	\$100
Record 3	ST0003	Cycling	\$200	Badminton	\$150
.....



This is a flat file that stores information about students, the sports that they selected, and the price for each sport that they selected. This scenario warrants the need for a database.

Case Scenario: Possible Database Solution

Student Details Table

Student ID	First Name	Last Name
ST0001	Sean	Smith

Sport Details Table

Sport ID	Sport Name	Price
TN001	Tennis	\$100

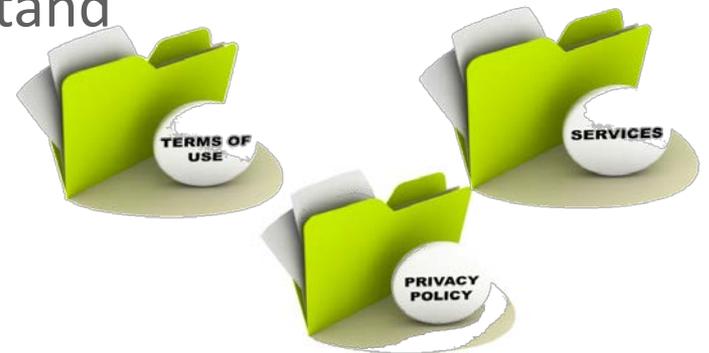
Participant Details Table

Student ID	Sport ID	Semester Details
ST0001	TN001	Fall2015

Flat file was split into three tables.

Importance of Business Rules

- It is important to identify and document business rules when designing a database.
- Business rules:
 - Allow the developer/architect to understand the relationship and constraints of the participating entities
 - Help you understand the standardization procedure that an organization follows when handling huge data
 - Should be simple and easy to understand
 - Must be kept up-to-date



Case Scenario: Identifying Business Rules

SunStar Online Book Rentals is a successful company that rents books. With its growing business, SunStar needs to enhance its information system to support proposed changes to the business. SunStar attracts new customers easily and the number of rentals is growing rapidly. The customer base is not stable, however, which is a cause for concern.

The main idea is to introduce three types of membership (gold, silver, bronze), although more may be introduced later. Bronze membership is free. Silver and gold memberships incur a fee but entitle the member to privileges. The type of membership cannot be changed.



Case Scenario: Solution for Identifying Business Rules

- Business Rule:
 - Members will pay membership fees.
- Constraint:
 - Members can belong to one of the three types of membership (gold, silver, or bronze).
- Business Rule:
 - Bronze membership is free. Silver and gold memberships incur a fee.
- Constraint:
 - Type of membership cannot be changed.



Case Scenario: Identifying Key Business Rules, Problems, and Assumptions

Note	Business Rule	Assumption	Problem
To ensure that new book arrivals happen on the 21 st of every month.			
Librarian cannot easily identify DVDs that are seriously overdue (more than two weeks late).			
Our current system probably uses Oracle Database 10g and is on UNIX.			

Identify the statements as a business rule, a problem, or an assumption.

Case Scenario: Identifying Key Business Rules, Problems, and Assumptions

Note	Business Rule	Assumption	Problem
To ensure that new book arrivals happen on the 21 st of every month.	X		
Librarian cannot easily identify DVDs that are seriously overdue (more than two weeks late).			X
Our current system probably uses Oracle Database 10g and is on UNIX.		X	



Here is the solution!!!!

Summary

In this lesson, you should have learned how to:

- Explain the need for a database solution
- Describe the importance of business rules
- Identify guidelines and examples of writing business rules



