



Business School  
UNIVERSITY OF COLORADO DENVER

Information Systems Program

# Module 8

## Developing Business Data Models

### Lesson 3: Design Transformations I

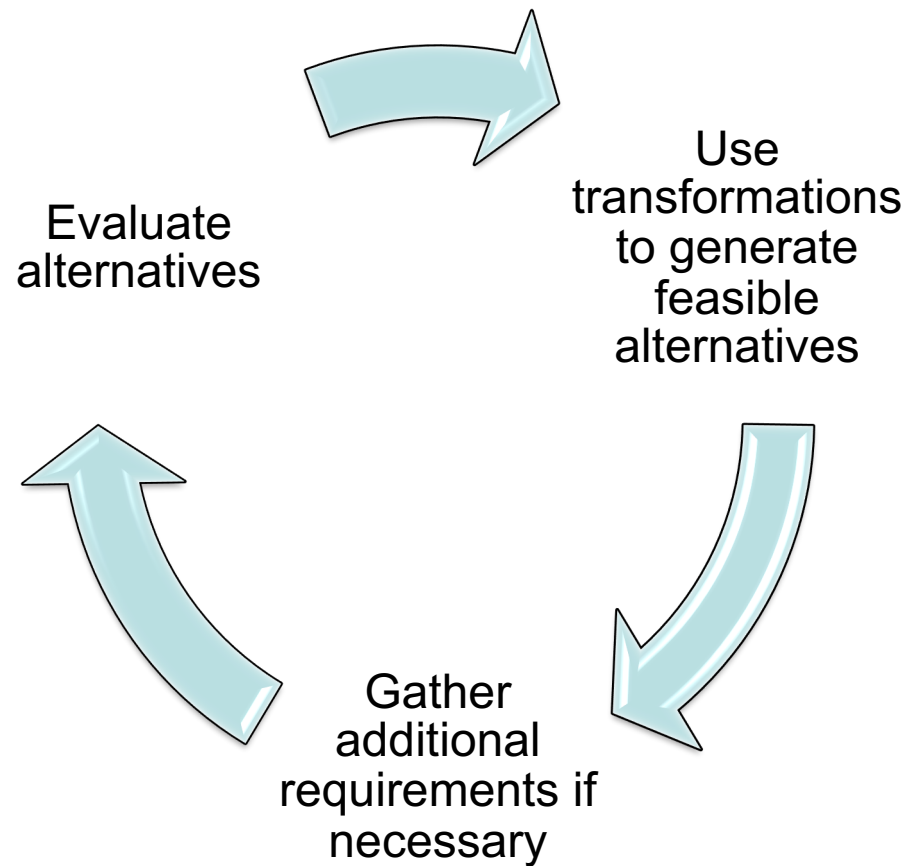


# Lesson Objectives

- Understand the importance of generating and evaluating alternative designs
- Explain a situation for using each transformation
- Apply each transformation

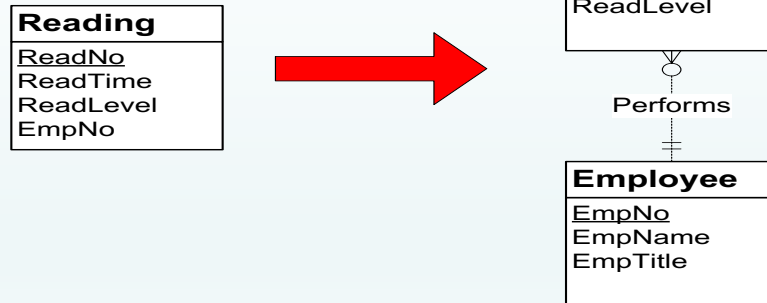


# Diagram Refinements

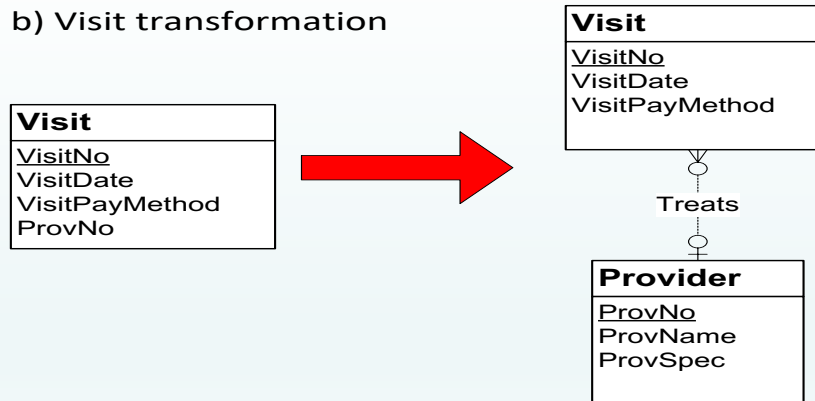


# Attribute Expansion

a) Reading transformation

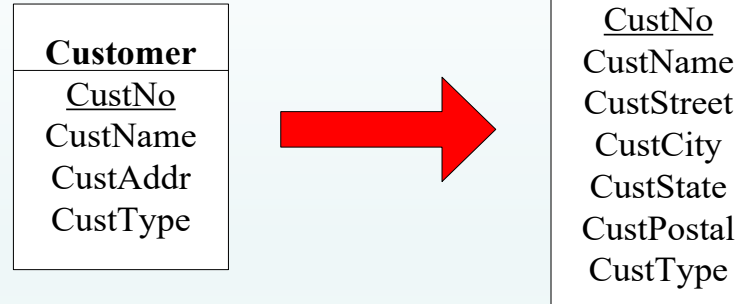


b) Visit transformation

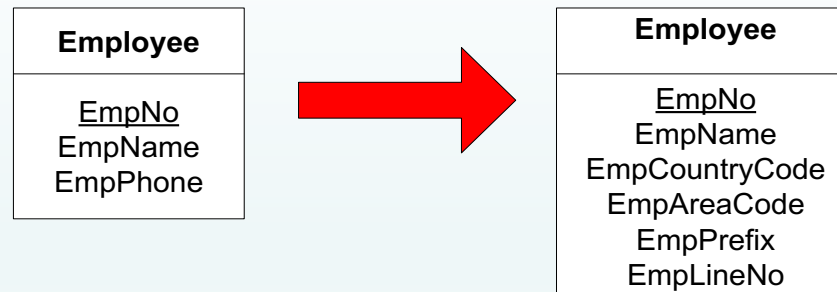


# Compound Attribute Split

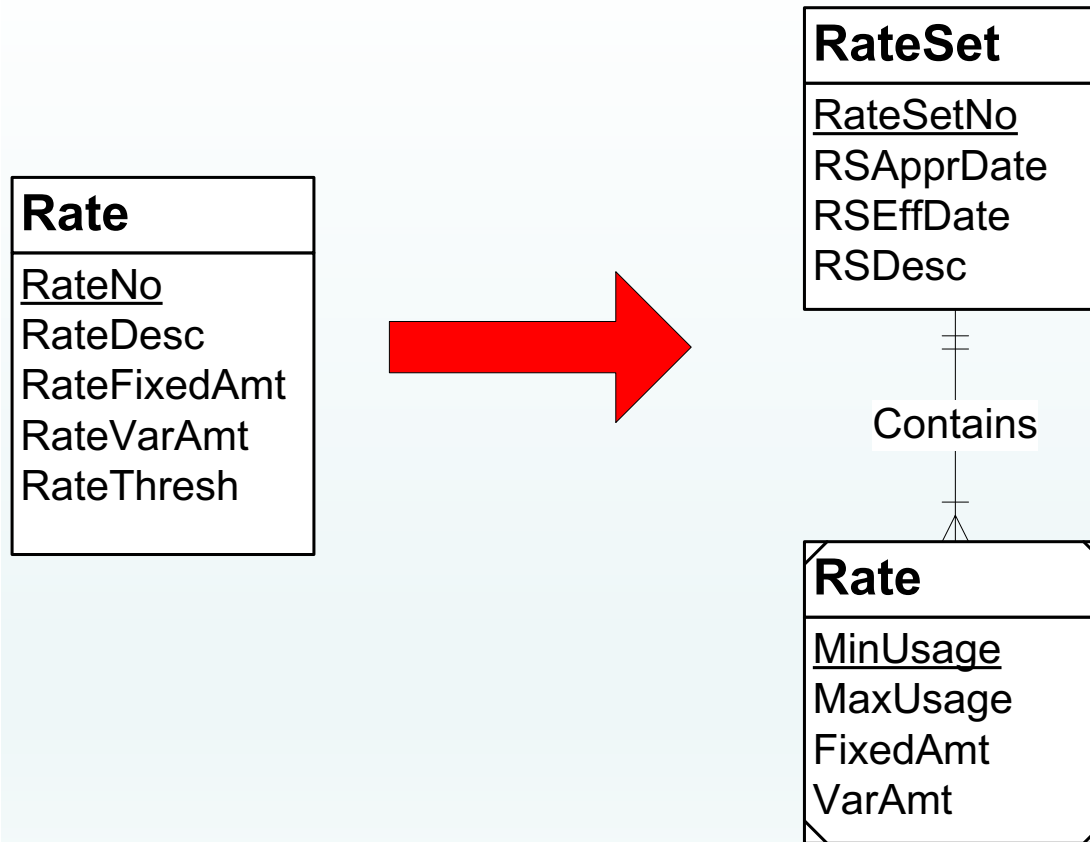
a) Splitting CustAddr



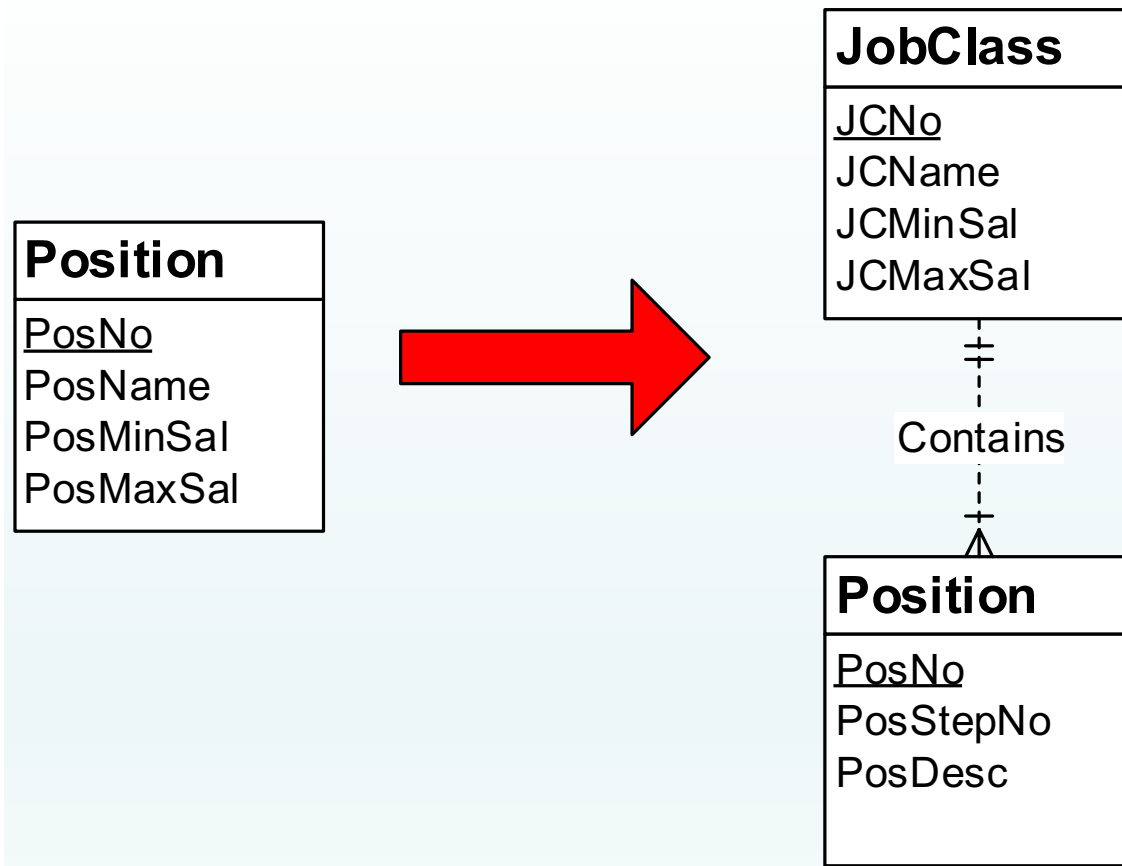
b) Splitting EmpPhone



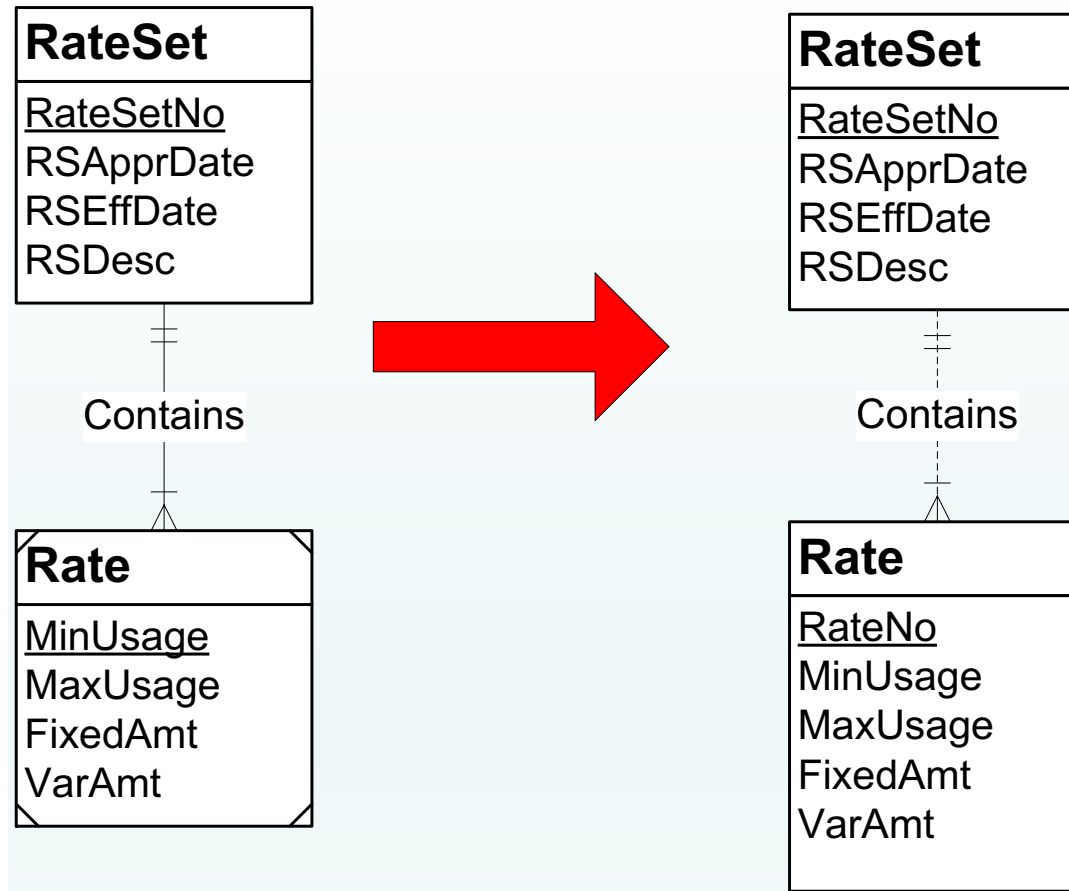
# Entity Type Expansion I



# Entity Type Expansion II

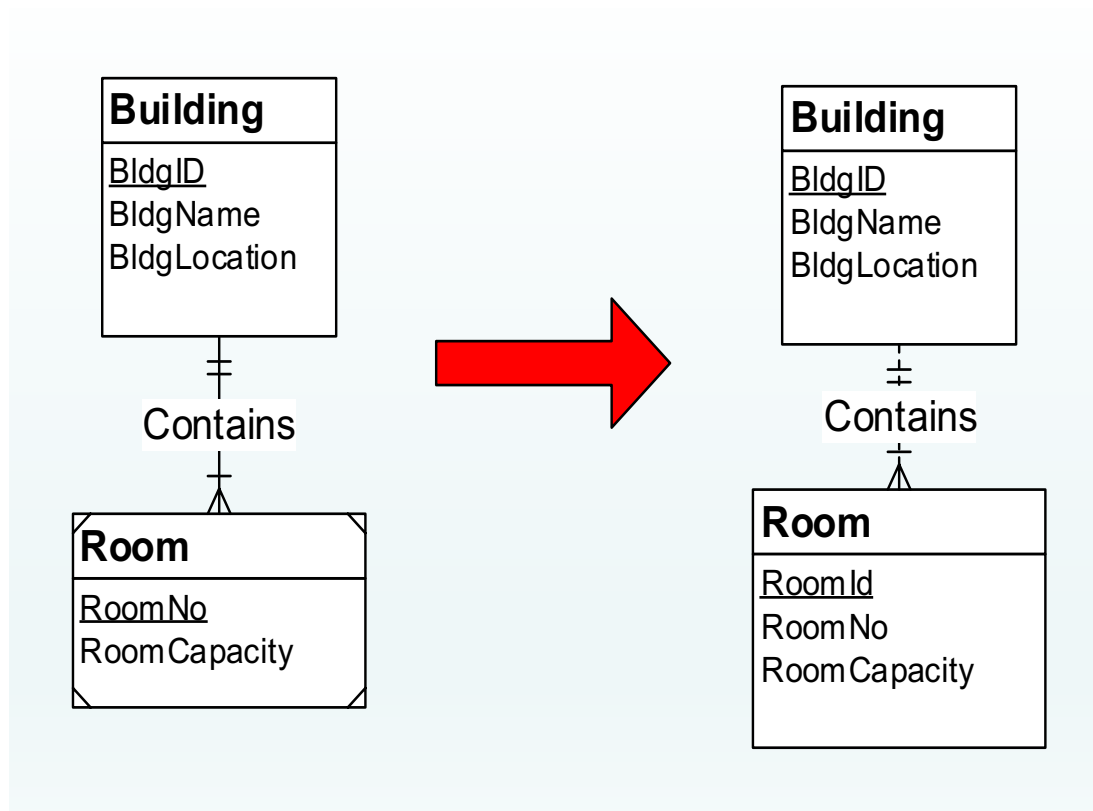


# Weak to Strong Entity Type I





# Weak to Strong Entity Type II



# Summary

- Attribute expansion
- Compound attribute split
- Entity type expansion
- Weak entity type to strong entity type

