

# Principles of Database Systems With Internet and Java Applications

Today's Topic

## Chapter 3: Enhanced E-R Modeling

Instructor's name and information goes here

Please see the notes pages for more information

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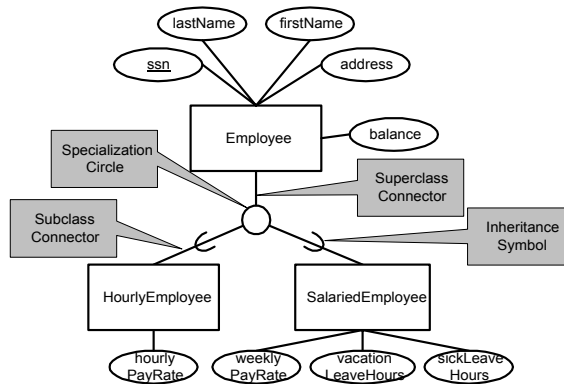
## Chapter 3: Advanced Data Models

- Inheritance and class hierarchies
  - Instructor may be faculty or student
  - Student may be undergraduate or graduate
- Superclass and subclass
  - In this context: specialization and generalization
- Enhanced E-R modeling
  - New symbols to represent specialization and generalization

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## Example of EER diagram

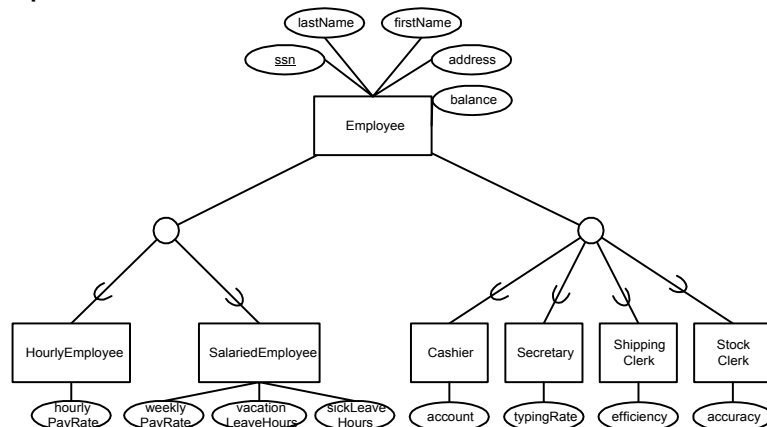
- New symbols in figure 3.11
  - Specialization, inheritance symbol (cup)



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## Multiple subclass hierarchies

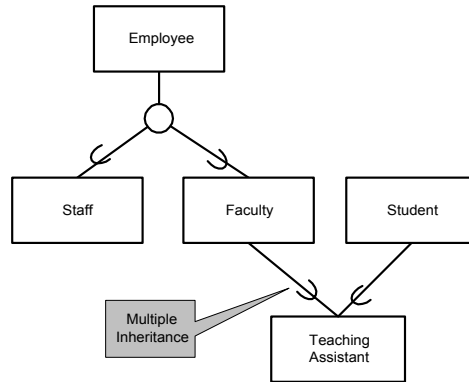
- Figure 3.12 showing employee with two specializations



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## Multiple inheritance

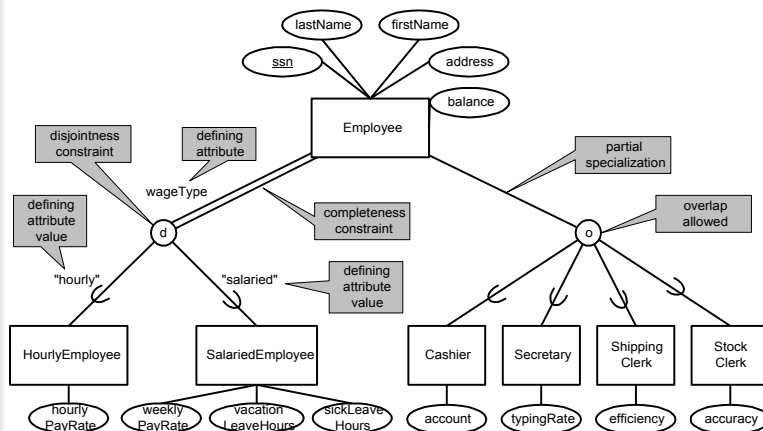
- Figure 3.13 p. 3-4, showing multiple inheritance of teaching assistant



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## Specifying constraints in EER diagrams

- Figure 3.13 p. 3-5, Employee diagram with constraints



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## Modeling unions with categories

- Figure 3.14 from text showing categories

