Lesson Objectives

- Create the result of a join operation on sample tables
- Briefly explain the components of the natural join operator

Natural Join Example I

Offering

OfferNo	FacNo
1111	111-11-1111
2222	222-22-2222
3333	111-11-1111

Faculty

FacNo	FacName
111-11-1111	JOE
222-22-2222	SUE
333-33-3333	SARA

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Natural Join Example II

Offering

OfferNo	FacNo
1111	111-11-1111
2222	222-22-2222
3333	111-11-1111

Faculty

FacNo	FacName
111-11-1111	JOE
222-22-2222	SUE
333-33-3333	SARA

Faculty Natural Join Offering

OfferNo	FacNo	FacName
1111	111-11-1111	JOE

Natural Join Example III

Offering

OfferNo	FacNo
1111	111-11-1111
2222	222-22-2222
3333	111-11-1111

Faculty

FacNo	FacName
111-11-1111	JOE
222-22-2222	SUE
333-33-3333	SARA

Faculty Natural Join Offering

OfferNo	FacNo	FacName
1111	111-11-1111	JOE
2222	222-22-2222	SUE
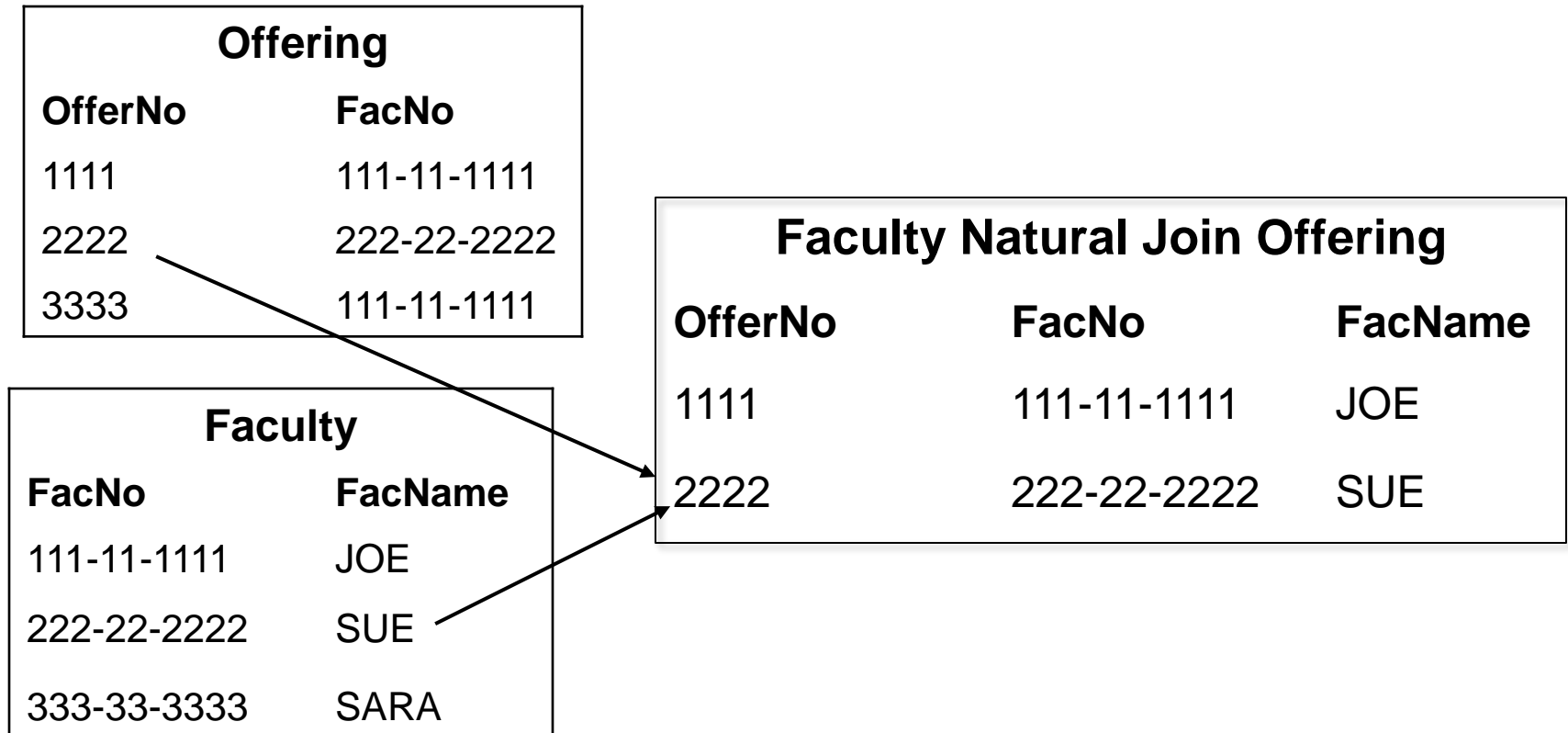
Natural Join Example IV

Offering

OfferNo	FacNo
1111	111-11-1111
2222	222-22-2222
3333	111-11-1111

Faculty

FacNo	FacName
111-11-1111	JOE
222-22-2222	SUE
333-33-3333	SARA

Faculty Natural Join Offering

OfferNo	FacNo	FacName
1111	111-11-1111	JOE
2222	222-22-2222	SUE
3333	111-11-1111	JOE
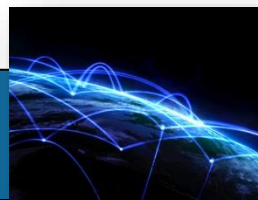
Join Operator

- Most databases have many tables
- Combine tables using the join operator
- Specify matching condition
  - Can be any comparison but usually =
  - PK = FK most common join condition
  - Relationship diagram useful when combining tables
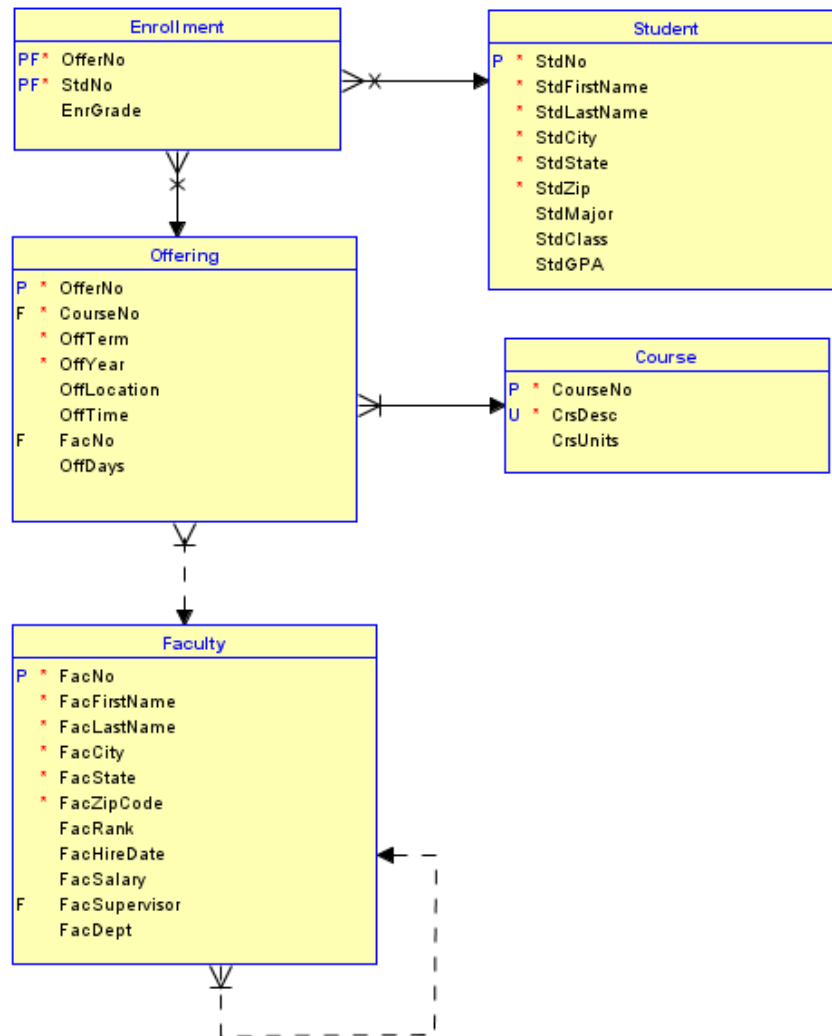
Natural Join Operator

- Most common join operator

- Requirements
  - Equality matching condition
  - Matching columns with the same unqualified names
  - Remove one join column in the result

- Usually performed on PK-FK join columns

University Database Diagram

Summary

- Essential operator in query formulation
- Use sample tables to learn the join operator
- Explicit join specification in the SELECT statement

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