



Relational Database Concepts

Relationship Patterns

PRESENTED BY IMGARD EKOKOBE



Objectives

- Understand the types of relationship patterns in a Database.



Relationship Patterns

We will discuss three patterns for relationships that you may encounter while supporting database designers on the job.

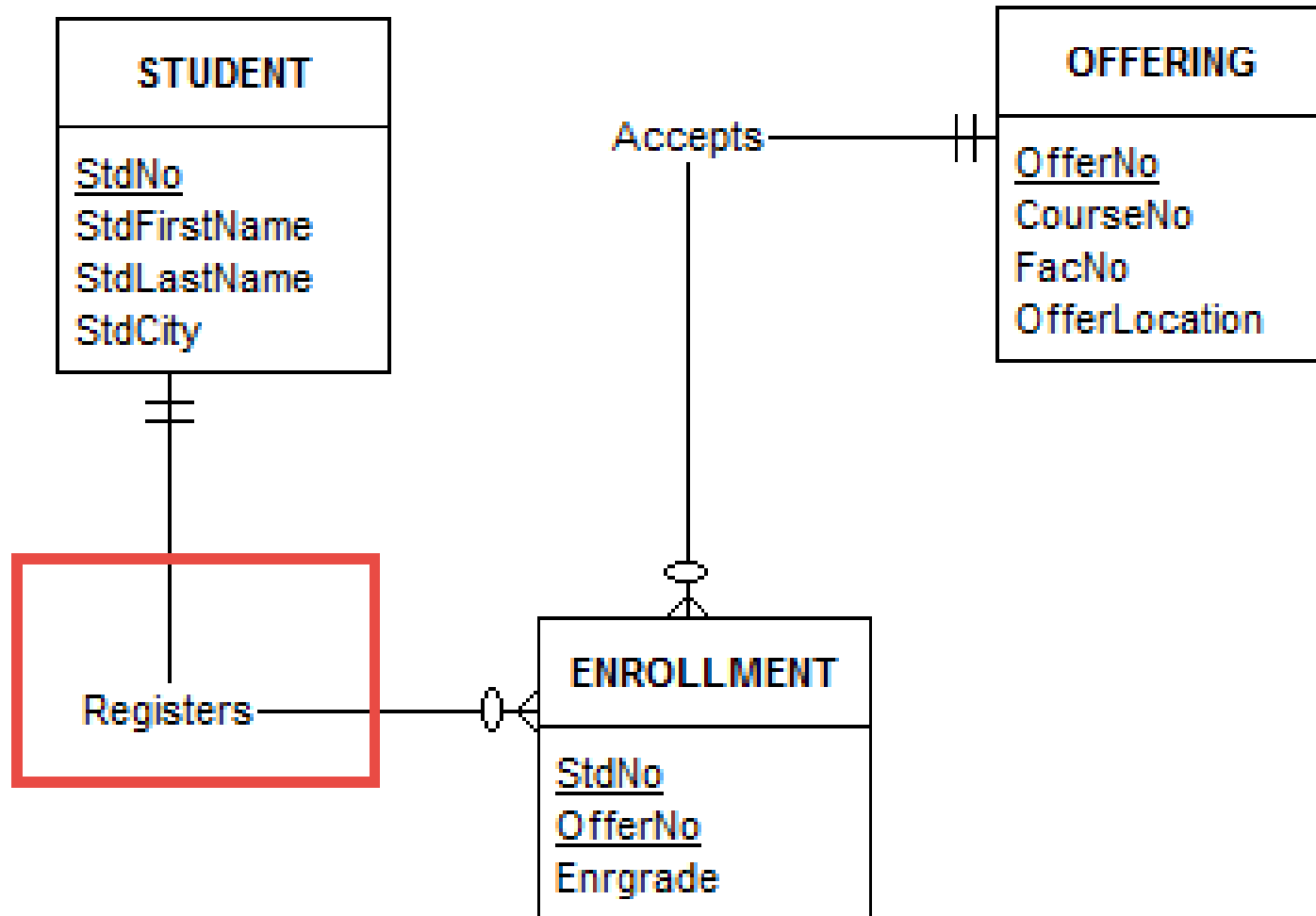
- M-N relationships with attributes.
- Self-referencing (unary) relationships.
- Associative entity types representing M-way relationships.
- These relationship patterns are not very popular, but it is important to understand them.



M-N Relationships with Attributes

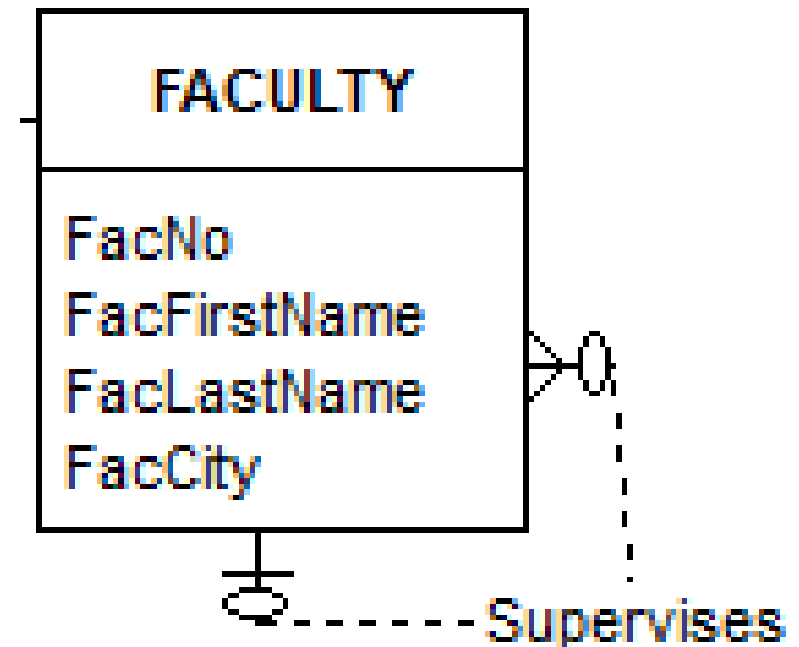
- For example, the Registers relationship records the fact that the student with StdNo 234-56-7890 has a grade of 3.5 in the offering with offer number 1234.

M-N Relationships with Attributes



Self-Referencing (Unary) Relationships

- A self-referencing relationship involves connections among members of the same set.
- Self-referencing relationships are sometimes called recursive relationships because they are like a reflection in a mirror. An example is the self-referencing relationships involving the Faculty entity type.
- For self-referencing relationships, it is important to distinguish between 1-M and M-N relationships. Each faculty can have at most one supervisor. For example, Faculty2 and Faculty3 have Faculty1 as a superior.



Self-Referencing (Unary) Relationships

Faculty Table

FACNO	FACFIRSTNAME	FACLASTNAME	FACCITY	FA	FACZIPCODE	FACR	FACHIREDA	FACSalary	FACSUPERVIS	FACDEP
543-21-0987	VICTORIA	EMMANUEL	BOTHELL	WA	98011-2242	PROF	15-APR-01	120000		MS
765-43-2109	NICKI	MACON	BELLEVUE	WA	98015-9945	PROF	11-APR-02	65000		FIN
654-32-1098	LEONARD	FIBON	SEATTLE	WA	98121-0094	ASSC	01-MAY-99	70000	543-21-0987	MS
098-76-5432	LEONARD	VINCE	SEATTLE	WA	98111-9921	ASST	10-APR-00	35000	654-32-1098	MS
876-54-3210	CRISTOPHER	COLAN	SEATTLE	WA	98114-1332	ASST	01-MAR-04	40000	654-32-1098	MS
987-65-4321	JULIA	MILLS	SEATTLE	WA	98114-9954	ASSC	15-MAR-05	75000	765-43-2109	FIN