Basic Data Concepts:

Query Language: Cartesian Product

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Cartesian Product

$$r \times s = \{ t \mid t = t_r\, t_s \text{ where } t_r \in r \wedge t_s \in s \}$$

Query:

List all possible combinations of computer science professors teaching computer science courses.

Answer:

cse_profs × cse_courses

Schema:

{ name, office, crsid, crstitle }

University Examples: Schema and Instance

cse_profs

name	office
Prof1	Office1
Prof2	Office2

cse_courses

crsid	crstitle
CSE412	Database Management
CSE513	Rules in Database Systems
CSE514	Object Orientated Databases

Cartesian Product: Example Query Result

name	office	crsid	crstitle
Prof1	Office1	CSE412	Database Management
Prof1	Office1	CSE513	Rules in Database Systems
Prof1	Office1	CSE514	Object Oriented Databases
Prof2	Office2	CSE412	Database Management
Prof2	Office2	CSE513	Rules in Database Systems
Prof2	Office2	CSE514	Object Oriented Databases