## Database Management Essentials

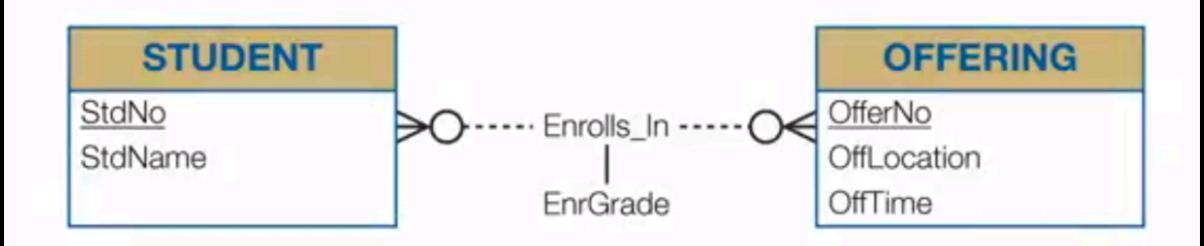
**Schema Conversion** 

Summarized by github.com/dgkim5360 dgkim5360.tistory.com

## Conversion Rules

- Entity Type Rule: Entity Type → Table
  - PK of entity type → PK of table
  - Attributes of entity type → Columns in table
- 1-M Relationship Rule: FK should placed in child table
- M-N Relationship Rule: Combined PK
  - Attributes in M-N relationship → Columns in table

## Exercise 1

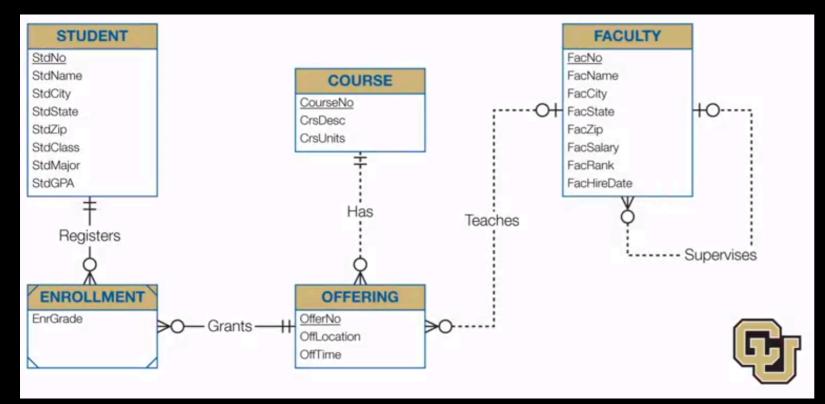


CREATE TABLE Student (..., PRIMARY KEY (StdNo))

CREATE TABLE Offering (..., PRIMARY KEY (OfferNo))

CREATE TABLE Enrollment (..., PRIMARY KEY (StdNo, OfferNo), FOREIGN KEY (StdNo) REFERENCES Student, FOREIGN KEY (OfferNo) REFERENCES Offering)

## Exercise 2



```
    Course

    Student

Entity type

    Enrollment

    rule

    Faculty

    Offering

    Enrollment.StdNo

                      1-M

    Enrollment.OfferNo

                 relationship

    Offering.CourseNo

    Offering.FacNo (optional)

                       rule

    Faculty.FacSupNo (optional)

                                         M-N
                                    relationship

    No application

                                         rule
                                                        Identifying

    Enrollment.StdNo (PK)

                                                       relationship

    Enrollment.OfferNo (PK)

                                                            rule
```

```
CREATE TABLE Course
   . . . ,
   PRIMARY KEY (CourseNo)
CREATE TABLE Student
    . . . ,
    PRIMARY KEY (StdNo)
CREATE TABLE Faculty
    PRIMARY KEY (FacNo),
    FOREIGN KEY (FacSupNo) REFERENCES
Faculty
CREATE TABLE Offering
    PRIMARY KEY (OffNo),
    FOREIGN KEY (CourseNo) REFERENCES
Course,
    FOREIGN KEY (FacNo) REFERENCES
Faculty,
    CONSTRAINT CourseNo NOT NULL
CREATE TABLE Enrollment
    . . . ,
    PRIMARY KEY (OfferNo, StdNo),
    FOREIGN KEY (OfferNo) REFERENCES
Offering,
    FOREIGN KEY (StdNo) REFERENCES Student
```