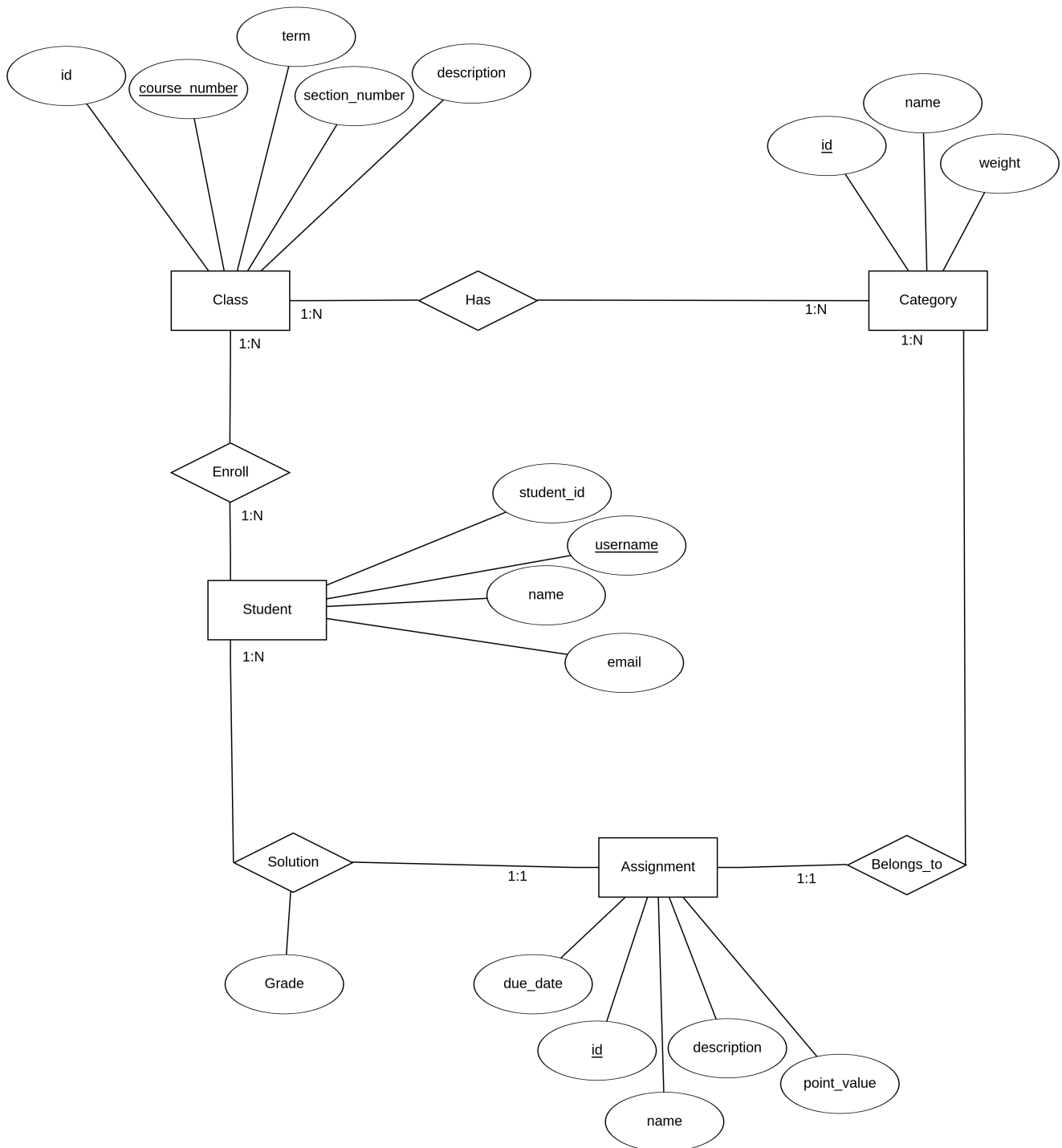


## Part I: Data Model

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**Class**(course number, term, section\_number, description)

course\_number: VARCHAR ( Course number can be alpha numeric like CS510)

term: VARCHAR

section\_number: INT

description: TEXT

**Category**(id, Class.course\_id, name, weight)

id: INT

name: VARCHAR

weight: INT

**Assignment**(id, Category.id, Class.id name, description, point\_value)

id: INT

name: VARCHAR

description: TEXT

point\_value: INT

**Students**(username, student\_id, name, email)

username: VARCHAR

student\_id: INT

name: VARCHAR

email: VARCHAR

**Enroll**(Student.student\_id, Class.id)

**Solution**(id, Student.student\_id, Assignment.id, grade)

id: INT

grade: FLOAT

## Part II: MySQL Schema

---

Create table for Class

```
CREATE TABLE IF NOT EXISTS Class (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    course_number VARCHAR(255),  
    term VARCHAR(255) NOT NULL,  
    section_number INT NOT NULL,  
    description TEXT  
);
```

Create table for Category

```
CREATE TABLE IF NOT EXISTS Category (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    category_name VARCHAR(255) NOT NULL,  
    class_id INT NOT NULL REFERENCES Class(id),  
    weight INT NOT NULL  
);
```

Create table for Assignment

```
CREATE TABLE IF NOT EXISTS Assignment (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    class_id INT NOT NULL REFERENCES Class(id),  
    name VARCHAR(255) NOT NULL,  
    category INT NOT NULL REFERENCES Category(id),  
    description TEXT,  
    points INT NOT NULL  
);
```

Create table for Students

```
CREATE TABLE IF NOT EXISTS Student (  
    username VARCHAR(255) UNIQUE PRIMARY KEY,  
    student_id INT NOT NULL ,  
    last_name VARCHAR(255) NOT NULL,  
    first_name VARCHAR(255) NOT NULL,  
);
```

Create table for Enroll

```
CREATE TABLE IF NOT EXISTS Enroll (  
    username VARCHAR(255) NOT NULL REFERENCES Student(username),  
    class_id INT NOT NULL REFERENCES Class(id)  
);
```

Create table for Solution

```
CREATE TABLE IF NOT EXISTS Solution (  
  id INT AUTO_INCREMENT PRIMARY KEY,  
  username VARCHAR(255) NOT NULL REFERENCES Student(username),  
  assignment_name INT NOT NULL REFERENCES Assignment(id),  
  grade FLOAT  
) ;
```