

## Project - Phase 2 (SQL Tables)

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drop table Enrolled;
drop table Submission;
drop table Assignment;
drop table AssignmentCategory;
drop table Classes;
drop table Students;
drop table Professors;
drop table Administrators;
drop table Courses;
drop table Departments;

create table Departments (
    Subject varchar(4),
    Name varchar(100) NOT NULL,

    primary key (Subject)
);

create table Courses (
    -- PK refinement
    CourseID int unsigned,
    Name varchar(100) NOT NULL,
    cNumber int unsigned,
    Listing varchar(4) NOT NULL,

    UNIQUE KEY UniqueCourse (cNumber, Listing),
    primary key (CourseID),
    foreign key (Listing) references Departments(Subject)
);

create table Students (
    uID char(8),
    fName varchar(100) NOT NULL,
    lName varchar(100),
    DOB date,
    Major varchar(4) NOT NULL,

    primary key (uID),
    foreign key (Major) references Departments(Subject)
);

create table Professors (
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    uID char(8),
    fName varchar(100) NOT NULL,
    lName varchar(100),
    DOB date,
    WorksIn varchar(4) NOT NULL,

    primary key (uID),
    foreign key (WorksIn) references Departments(Subject)
);

create table Administrators (
    uID char(8),
    fName varchar(100) NOT NULL,
    lName varchar(100),
    DOB date,

    primary key (uID)
);

create table Classes (
    -- PK refinement
    ClassID int unsigned,
    SemesterYear int unsigned NOT NULL,
    SemesterSeason ENUM('Spring', 'Fall', 'Summer') NOT NULL,
    OfferingOf int unsigned NOT NULL,
    Location varchar(100),
    StartTime time NOT NULL,
    EndTime time NOT NULL,
    ProfessorID char(8),

    UNIQUE KEY UniqueClass (SemesterYear, SemesterSeason, OfferingOf),
    primary key (ClassID),
    foreign key (OfferingOf) references Courses(CourseID),
    foreign key (ProfessorID) references Professors(uID)
);

create table AssignmentCategory (
    -- PK refinement
    AssignmentCategoryID int unsigned,
    Name varchar(100) NOT NULL,
    CategoryOf int unsigned,
    Weight int unsigned,

    UNIQUE KEY UniqueAssignmentCategory (Name, CategoryOf),
    primary key (AssignmentCategoryID),

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        foreign key(CategoryOf) references Classes(ClassID)
    );

create table Assignment (
    -- PK refinement
    AssignmentID int unsigned,
    Name varchar(100) NOT NULL,
    AssignedIn int unsigned,
    Contents varchar(100),
    DueDate datetime,
    MaxPoints int unsigned,

    UNIQUE KEY UniqueAssignment(Name, AssignedIn),
    primary key (AssignmentID),
    foreign key (AssignedIn) references AssignmentCategory(AssignmentCategoryID)
);

create table Submission (
    -- PK refinement
    AssignmentID int unsigned,
    StudentID char(8),
    SubmissionTime datetime,
    Score int unsigned,
    Contents varchar(100),

    primary key(StudentID, AssignmentID),
    foreign key (AssignmentID) references Assignment(AssignmentID),
    foreign key (StudentID) references Students(uID)
);

create table Enrolled (
    StudentID char(8),
    ClassID int unsigned,
    Grade varchar(2),

    primary key(StudentID, ClassID),
    foreign key (StudentID) references Students(uID),
    foreign key (ClassID) references Classes(ClassID)
);

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