**SQL Records**

STUDENT

· student\_id INT(PK)

· first\_name VARCHAR(50)

· last\_name VARCHAR(50)

· student\_major VARCHAR(50)

· student\_email VARCHAR(50)

ASSIGNMENT

· assignment\_id INT (PK)

· assignment\_name VARCHAR(50)

GRADED\_ASSIGNMENT

· assignment\_id INT (FK/PK)

· student\_id INT (FK/PK)

· grade DECIMAL

**SQL Table Statements**

CREATE TABLE student ( student\_id INT PRIMARY KEY, first\_name VARCHAR(50), last\_name VARCHAR(50), student\_major VARCHAR(50), student\_email VARCHAR(50) );

CREATE TABLE assignment ( assignment\_id INT PRIMARY KEY, assignment\_name VARCHAR(50) );

CREATE TABLE graded\_assignment ( assignment\_id INT REFERENCES assignment(assignment\_id), student\_id INT REFERENCES student(student\_id), grade DECIMAL, PRIMARY KEY(assignment\_id, student\_id) );

**SQL Gradebook Functions**

· Add Student

o INSERT INTO student VALUES(\*,\*,…);

· Delete Student

o DELETE FROM student WHERE student\_id=\*;

· Change/Edit Grade

o UPDATE graded\_assignment SET grade=\* WHERE student\_id=\* AND assignment\_id=\*;

· Display Student Roster and All Grades

o SELECT student\_id, first\_name, last\_name, assignment\_name, grade FROM student, assignment, graded\_assignment GROUP BY student\_id;

· Add an Assignment to the Gradebook

o INSERT INTO assignment VALUES(\*,\*,…);

o ***Looped for # of students?* |**INSERT INTO graded\_assignment VALUES(\*,\*,…);

· Delete an Assignment from Gradebook

o ***MUST DELETE FIRST* |** DELETE FROM graded\_assignment WHERE assignment\_id=\*;

o DELETE FROM assignment WHERE assignment\_id=\*;

· Display Student Aggregate Grade

o ***Looped for Each Student?* |** SELECT SUM(grade) FROM graded\_assignment WHERE student\_id=\* AND assignment\_id=\*; ***DIVIDE BY*** SELECT 100\*COUNT(assignment\_id) FROM assignment WHERE assignment\_id=\*;

· Display Student Roster and All Grades in Alphabetical Order

o SELECT student\_id, last\_name, first\_name, assignment\_name, grade FROM student, assignment, graded\_assignment SORT BY last\_name;

· Display Data (Grades, All Other Data, Etc.) For a Single Student

o SELECT student\_id, last\_name, first\_name, student\_major, student\_email FROM student WHERE student\_id=\*;

o SELECT assignment\_id, assignment\_name, grade FROM assignment, graded\_assignment WHERE student\_id=\* AND assignment.assignment\_id=graded\_assignment.assignment\_id;

**Non-SQL Gradebook Functions**

· Deployed on pythonanywhere

· Name of class displayed

· Accessed via username and password

Student:

1 John Smith IS [js@school.edu](mailto:js@school.edu)

2 Mary Jane CS [mj@school.edu](mailto:mj@school.edu)

3 Gerald Garner PE [gg@school.edu](mailto:gg@school.edu)

Assignment:

1 Midterm

2 Final

Graded Assignment:

1 1 100

1 2 70

1 3 75

2 1 80

2 2 90

2 3 75