**Lab 12-Postgresql**

Robiul Hasan

Tuesday Apr 29, 2025 (Introduction)

Class example:

A screenshot of a computer

Description automatically generated

Lab Exercise:12A

1. Table name: courses

A screenshot of a computer

Description automatically generated

1. Table name: Tuition

A screenshot of a computer screen

Description automatically generated

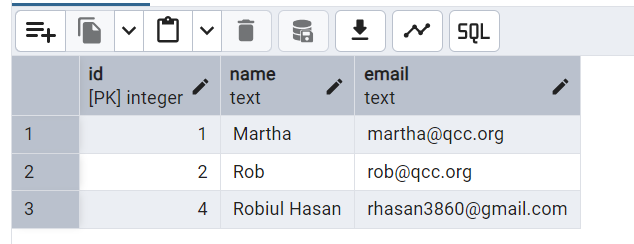
Thursday May 1, 2025 (CRUD)

Class example:

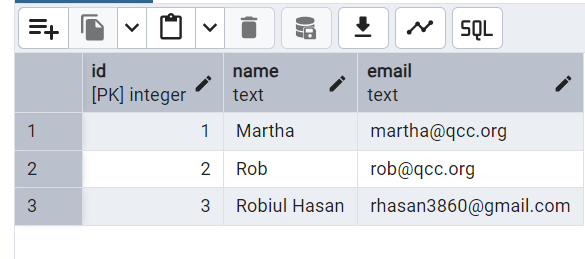
A screenshot of a computer

Description automatically generated

Insert a new row



Then update the id to 3



Lab Exercise:12B

1. Read Data

Select all books

A screenshot of a computer

Description automatically generated

Select books where the author is ‘George Orwell’

A screenshot of a computer

Description automatically generated

1. Update Data

A screenshot of a computer

Description automatically generated

1. Delete Data

A screenshot of a computer

Description automatically generated

1. View Final Table

A screenshot of a computer

Description automatically generated

Bonus Challenge:

A screenshot of a computer

Description automatically generated

Friday, May 2, 2025

Class example:

A screenshot of a computer

Description automatically generated

Lab Exercise:12C

1. Read all students and their majors

A screenshot of a computer screen

AI-generated content may be incorrect.

1. Read the titles of courses each student is enrolled in

A screenshot of a computer

AI-generated content may be incorrect.

1. Read all students with grades and courses

A screenshot of a computer

AI-generated content may be incorrect.

**All the queries for lab 12C:**

create table students(

id serial primary key,

name varchar(100),

major varchar(100)

);

insert into students(name, major) values

('Alice Brown', 'Computer Science'),

('Peter Pan', 'Mathematics'),

('Annie Chen', 'Physics'),

('Robiul Hasan', 'Mathematics');

select \* from students;

create table courses(

id serial primary key,

title varchar(100),

department varchar(100)

);

insert into courses(title, department) values

('Database System', 'computer science'),

('Linear Algebra', 'mathematics'),

('Quantum Mechanics','physics'),

('Python programming', 'computer science'),

('Calculus III', 'mathematics');

create table enrollments(

id serial primary key,

grade char(2),

student\_id integer references students(id) on delete cascade,

courses\_id integer references courses(id) on delete cascade

);

insert into enrollments(grade, student\_id, courses\_id) values

('A', 4, 5),

('B', 3, 3),

('C', 2, 2),

('B+', 1, 4);

select \* from courses;

select title from courses;

select students.name, courses.title, enrollments.grade

from enrollments

join students on enrollments.student\_id=students.id

join courses on enrollments.courses\_id=courses.id;