

Assignment 3B - DDL

Task 1:

ALL ATTRIBUTES ARE ASSUMED TO BE "NOT NULL"

- create database universitydb;
- use universitydb;
- create table department (
dept_name varchar(20),
building varchar(15),
budget numeric(10,2),
Primary key (dept_name));
- create table course (
course_id varchar(8),
title varchar(50),
dept_name varchar(20),
credits numeric(2,0),
primary key (course_id),
foreign key (dept_name) references department (dept_name));
- create table instructor (
instructor_id varchar(10),
instructor_name varchar(30),
dept_name varchar(20),
salary numeric(10,2),
primary key (instructor_id),
foreign key(dept_name) references department (dept_name));
- create table section (
course_id varchar(8),
section_id varchar(8),
semester varchar(10),
section_year int,
building varchar(50),
room_number varchar(10),
primary key (course_id, section_id, semester, section_year),
foreign key (course_id) references course (course_id));
- create table teaches (
instructor_id varchar(10),
course_id varchar(8),
section_id varchar(8),
semester varchar(10),
section_year int,
primary key (instructor_id, course_id, section_id, semester, section_year),
foreign key (instructor_id) references instructor (instructor_id),
foreign key (course_id, section_id, semester, section_year) references section(course_id, section_id, semester, section_year));

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- create table student (
student_id varchar(10),
student_name varchar(30),
dept_name varchar(20),
total_credits numeric(5,2),
primary key (student_id),
foreign key(dept_name) references department(dept_name));

Insertion:

- Department
 - INSERT INTO department (dept_name, building, budget)
VALUES ('CMPSC', 'Sutherland', '52000.00'), ('ART', 'Woodland', '568000.00'), ('Law', 'Cloverly', '37500.00');
- | | dept_name | building | budget |
|---|-----------|------------|-----------|
| <input type="checkbox"/> Edit Copy Delete | ART | Woodland | 568000.00 |
| <input type="checkbox"/> Edit Copy Delete | CMPSC | Sutherland | 52000.00 |
| <input type="checkbox"/> Edit Copy Delete | Law | Cloverly | 37500.00 |
- Course
 - INSERT INTO course (course_id, title, dept_name, credits)
VALUES ('CMPSC462', 'Data Structures', 'CMPSC', '3'), ('CMPSC463', 'Algorithms', 'CMPSC', '3'), ('CMPSC430', 'Database Design', 'CMPSC', '3');
- | | course_id | title | dept_name | credits |
|---|-----------|-----------------|-----------|---------|
| <input type="checkbox"/> Edit Copy Delete | CMPSC430 | Database Design | CMPSC | 3 |
| <input type="checkbox"/> Edit Copy Delete | CMPSC462 | Data Structures | CMPSC | 3 |
| <input type="checkbox"/> Edit Copy Delete | CMPSC463 | Algorithms | CMPSC | 3 |
- Instructor
 - INSERT INTO instructor (instructor_id, instructor_name, dept_name, salary)
VALUES ('vue9', 'Vinayak Elangovan', 'CMPSC', '70000.00'), ('msh5850', 'MD Hossain', 'CMPSC', '90000.00'), ('aet5496', 'Alejandro Trofimoff', 'CMPSC', '50000.00');
- | | course_id | title | dept_name | credits |
|---|-----------|-----------------|-----------|---------|
| <input type="checkbox"/> Edit Copy Delete | CMPSC430 | Database Design | CMPSC | 3 |
| <input type="checkbox"/> Edit Copy Delete | CMPSC462 | Data Structures | CMPSC | 3 |
| <input type="checkbox"/> Edit Copy Delete | CMPSC463 | Algorithms | CMPSC | 3 |
- Section
 - INSERT INTO section (course_id, section_id, semester, section_year, building, room_number)
VALUES ('CMPSC462', '001', 'Fall', '2022', 'Woodland', '345'), ('CMPSC463', '001', 'Fall', '2022', 'ZOOM', 'N/A'), ('CMPSC430', '001', 'Fall', '2022', 'ZOOM', 'N/A');

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				course_id	section_id	semester	section_year	building	room_number
<input type="checkbox"/>				CMPSC430	001	Fall	2022	ZOOM	N/A
<input type="checkbox"/>				CMPSC462	001	Fall	2022	Woodland	345
<input type="checkbox"/>				CMPSC463	001	Fall	2022	ZOOM	N/A

- Teaches

- INSERT INTO teaches (instructor_id, course_id, section_id, semester, section_year) VALUES ('vue9', 'CMPSC462', '001', 'Fall', '2022'), ('msh5850', 'CMPSC463', '001', 'Fall', '2022'), ('msh5850', 'CMPSC430', '001', 'Fall', '2022');

					instructor_id	course_id	section_id	semester	section_year
<input type="checkbox"/>				msh5850	CMPSC430	001	Fall	2022	
<input type="checkbox"/>				msh5850	CMPSC463	001	Fall	2022	
<input type="checkbox"/>				vue9	CMPSC462	001	Fall	2022	

- Student










- INSERT INTO student (student_id, student_name, dept_name, total_credits) VALUES ('gkn5075', 'Gabriel Nulman', 'CMPSC', '95.50'), ('pns5075', 'Parth Shah', 'CMPSC', '90.00'), ('jag6611', 'Jacob Gampa', 'CMPSC', '100.00');

					student_id	student_name	dept_name	total_credits
<input type="checkbox"/>				gkn5075	Gabriel Nulman	CMPSC	95.50	
<input type="checkbox"/>				jag6611	Jacob Gampa	CMPSC	100.00	
<input type="checkbox"/>				pns5075	Parth Shah	CMPSC	90.00	

Task 2:




- 1) UPDATE department

SET budget = (0.05 * budget) + budget
WHERE dept_name = "Law";

<div><div>←T→</div><div></div></div>				dept_name	building	budget
<input type="checkbox"/>	 Edit	 Copy	 Delete	ART	Woodland	568000.00
<input type="checkbox"/>	 Edit	 Copy	 Delete	CMPSC	Sutherland	52000.00
<input type="checkbox"/>	 Edit	 Copy	 Delete	Law	Cloverly	39375.00










- 2) SELECT budget FROM department

WHERE dept_name = "cmpsc";










<div>← T →</div>				budget		
<input type="checkbox"/>		Edit		Copy	 Delete	52000.00

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- 3) SELECT instructor_name, salary FROM instructor
WHERE dept_name = "cmpsc";

					instructor_name	salary		
<input type="checkbox"/>		Edit		Copy		Delete	Alejandro Trofimoff	50000.00
<input type="checkbox"/>		Edit		Copy		Delete	MD Hossain	90000.00
<input type="checkbox"/>		Edit		Copy		Delete	Vinayak Elangovan	70000.00

- 4) SELECT student_name, total_credits FROM student;

					student_name	total_credits		
<input type="checkbox"/>		Edit		Copy		Delete	Gabriel Nulman	95.50
<input type="checkbox"/>		Edit		Copy		Delete	Jacob Gampa	100.00
<input type="checkbox"/>		Edit		Copy		Delete	Parth Shah	90.00