

**CZ2007: Introduction to Databases**

**Lab 5 Submission**

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**Creating tables in database:**

CREATE Database University

go

use University

CREATE TABLE City(

city\_name VARCHAR (255) NOT NULL,

state\_name VARCHAR (255) NOT NULL,

PRIMARY KEY(city\_name,state\_name)

);

CREATE TABLE Person(

person\_id INT,

person\_name VARCHAR (255) NOT NULL,

school VARCHAR (255),

phone VARCHAR (25),

email VARCHAR (255),

street VARCHAR (255),

state\_name VARCHAR (255),

zip\_code VARCHAR (5),

city\_name VARCHAR(255),

UNIQUE(phone),

UNIQUE(email),

PRIMARY KEY(person\_id) ,

Foreign Key (city\_name,state\_name) References City(city\_name,state\_name) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Staff(

person\_id INT,

staff\_id INT,

PRIMARY KEY(staff\_id),

UNIQUE(person\_id),

FOREIGN KEY (person\_id) REFERENCES Person (person\_id) ON DELETE CASCADE ON UPDATE CASCADE,

position VARCHAR (255),

date\_hired DATE

);

CREATE TABLE Student(

person\_id INT,

UNIQUE(person\_id),

student\_id INT,

PRIMARY KEY(student\_id),

FOREIGN KEY (person\_id) REFERENCES Person (person\_id) ON DELETE CASCADE ON UPDATE CASCADE,

major\_minors VARCHAR (255),

admission\_date DATE

);

CREATE TABLE Professor(

person\_id INT ,

PRIMARY KEY(person\_id),

FOREIGN KEY (person\_id) REFERENCES Person (person\_id) ON DELETE CASCADE ON UPDATE CASCADE,

field\_of\_expertise VARCHAR (255)

);

CREATE TABLE Course\_taken(

course\_id INT ,

student\_id INT,

person\_id INT,

course\_name VARCHAR (255) NOT NULL,

course\_date DATE,

PRIMARY KEY(course\_id,student\_id,course\_date),

FOREIGN KEY (student\_id) REFERENCES Student (student\_id) ,

FOREIGN KEY (person\_id) REFERENCES Professor (person\_id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Stakeholder(

person\_id INT ,

PRIMARY KEY(person\_id),

FOREIGN KEY (person\_id) REFERENCES Person (person\_id) ON DELETE CASCADE ON UPDATE CASCADE,

domain VARCHAR (255)

);

CREATE TABLE Laboratory(

lab\_name VARCHAR (255) ,

school VARCHAR (255) ,

lab\_location VARCHAR (255) NOT NULL

PRIMARY KEY(lab\_name,school)

);

CREATE TABLE Equipment(

id INT ,

lab\_name VARCHAR (255),

school VARCHAR (255),

PRIMARY KEY(id,lab\_name,school),

FOREIGN KEY (lab\_name,school) REFERENCES Laboratory (lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE,

equipment\_name VARCHAR (255) NOT NULL,

date\_purchased DATE NOT NULL,

model\_no INT NOT NULL

);

CREATE TABLE Research\_laboratory(

lab\_name VARCHAR (255),

school VARCHAR (255),

PRIMARY KEY(lab\_name,school),

FOREIGN KEY (lab\_name,school) REFERENCES Laboratory(lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE,

);

CREATE TABLE Teaching\_laboratory(

lab\_name VARCHAR (255) ,

school VARCHAR (255) ,

PRIMARY KEY(lab\_name , school),

FOREIGN KEY (lab\_name,school) REFERENCES Laboratory(lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE,

);

CREATE TABLE Graduate(

student\_id INT ,

--prof\_person\_id INT,

year\_of\_study INT,

PRIMARY KEY(student\_id),

FOREIGN KEY (student\_id) REFERENCES Student (student\_id) ,

);

CREATE TABLE Supervise(

prof\_person\_id INT,

student\_id INT,

research\_topic VARCHAR (255) NOT NULL,

PRIMARY KEY(student\_id, prof\_person\_id),

FOREIGN KEY (prof\_person\_id) REFERENCES Professor (person\_id) ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (student\_id) REFERENCES Graduate (student\_id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Undergraduate(

student\_id INT ,

year\_of\_study INT,

PRIMARY KEY(student\_id),

FOREIGN KEY (student\_id) REFERENCES Student (student\_id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Assign(

-- Unsure about these ones (if you can get the foreign key from a foreign key) NO

lab\_name VARCHAR (255) ,

school VARCHAR (255),

student\_id INT ,

PRIMARY KEY(lab\_name,school,student\_id),

FOREIGN KEY (lab\_name,school) REFERENCES Research\_laboratory (lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (student\_id) REFERENCES Graduate (student\_id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Experiments(

lab\_name VARCHAR (255) ,

school VARCHAR (255) ,

student\_id INT ,

PRIMARY KEY(lab\_name,school,student\_id,experiment\_date),

FOREIGN KEY (lab\_name,school) REFERENCES Teaching\_laboratory(lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE,

FOREIGN KEY (student\_id) REFERENCES Undergraduate(student\_id) ON DELETE CASCADE ON UPDATE CASCADE,

experiment\_date DATE NOT NULL,

attendance BIT NOT NULL

);

CREATE TABLE Admin\_staff(

staff\_id INT ,

PRIMARY KEY(staff\_id),

department VARCHAR (255),

FOREIGN KEY (staff\_id) REFERENCES Staff (staff\_id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Technical\_staff(

staff\_id INT ,

school VARCHAR (255) ,

lab\_name VARCHAR (255) ,

PRIMARY KEY(staff\_id),

FOREIGN KEY (staff\_id) REFERENCES Staff (staff\_id) ON DELETE CASCADE on UPDATE CASCADE,

FOREIGN KEY (lab\_name,school) REFERENCES Laboratory (lab\_name,school) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE Timetable(

date\_time DATETIME ,

class VARCHAR (255),

person\_id INT ,

PRIMARY KEY(date\_time,class,person\_id),

FOREIGN KEY (person\_id) REFERENCES Professor (person\_id) ON DELETE CASCADE on UPDATE CASCADE

);

CREATE TABLE Comments(

comments\_date\_time DATETIME ,

topic VARCHAR (255) ,

person\_id INT,

PRIMARY KEY(topic,person\_id,comments\_date\_time),

FOREIGN KEY (person\_id) REFERENCES Stakeholder (person\_id) ON DELETE CASCADE on UPDATE CASCADE

);

**Adding values in database:**

use University

insert into City values('Pensacola', 'Florida')

insert into City values('New York City', 'New York')

insert into City values('Maharashtra', 'Mumbai')

insert into City values('Chicago', 'Illinois')

insert into City values('Camden', 'London')

insert into City values('Westminster, London', 'London')

insert into City values('Atlanta', 'Georgia')

Select \* from City

insert into Person values(1,'Jorgen','SCSE',91897761,'jorgen@ntu.edu.sg','8th Beak Street','New York','80801','New York City')

insert into Person values(2 ,'Kirath Singh', 'ADM', 91890967 ,'kirath@ntu.edu.sg', '6th Beach Street', 'New York', '467', 'New York City')

insert into Person values(3 ,'Shantanu Sharma', 'SCSE', 91622761 ,'shan17@ntu.edu.sg', '21 West Baltimore Street', 'Georgia', '67988', 'Atlanta')

insert into Person values(4 ,'Max Schoetzle', 'SPMS', 91890891 ,'max@ntu.edu.sg', '99th Kingston Street', 'New York', '67978', 'New York City')

insert into Person values(5 ,'Tyler Roh', 'NBS', 91890879, 'ty@ntu.edu.sg', '6th Broadway Street', 'New York', '46778', 'New York City')

insert into Person values(6, 'Shubhangi', 'NBS', 99183914, 'shubh@sim.edu.sg', '76 East Washington March', 'New York', '81494', 'New York City')

insert into Person values(7 ,'Ronald', 'SCSE', 91628961,'ron@ntu.edu.sg', '17 East Federation Street','Florida', '67978', 'Pensacola')

insert into Person values(8 ,'David Thor.', 'SCSE', 91991831 ,'david@ntu.edu.sg', '78th Rutgers Street', 'New York', '80911', 'New York City')

insert into Person values(9 ,'Mahir Karim', 'NBS', 91889811 ,'mahir@ntu.edu.sg', '116th Mercer Street', 'New York', '88911', 'New York City')

insert into Person values(10,'Julia Ferro', 'NBS', 91778713 ,'julia@ntu.edu.sg', '117 Varick Street', 'New York', '88778', 'New York City')

insert into Person values(11,'Georgie Kath', 'SPMS', 99819424, 'georgie@ntu.edu.sg', '117 Herald Street', 'New York', '88918', 'New York City')

insert into Person values(12,'Chiara Schitin', 'ADM', 99481741 ,'chiara@ntu.edu.sg', '9 Madison Street', 'New York', '55334', 'New York City')

insert into Person values(13,'Vansh', 'MECH', 99572942, 'vansh@ntu.edu.sg', '75 Vaishnav Street', 'Mumbai', '9765', 'Maharashtra')

insert into Person values(14,'Vinith', 'SOH', 99572991 ,'vinith@ntu.edu.sg', '45 Douglas Street', 'Illinois', '52223', 'Chicago')

insert into Person values(15,'Aishwarya', 'SSS', 52236523 ,'aish@ntu.edu.sg', 'East 117 Street', 'Illinois', '52583', 'Chicago')

insert into Person values(16,'Mehul', 'NBS', 8422643 ,'mehul@ntu.edu.sg', 'East 92 Street', 'Illinois', '55683', 'Chicago')

insert into Person values(17,'Saranya', 'NBS', 3368412 ,'saranya@ntu.edu.sg','West 45 Street', 'Illinois', '33641', 'Chicago')

insert into Person values(18, 'Chhavi Agarwal', 'NBS', 8879543, 'chhavi@ntu.edu.sg', 'West 67 Street', 'Illinois','33265', 'Chicago')

insert into Person values(19, 'Manav Mehra', 'NBS', 5564995, 'manav@ntu.edu.sg', '5 Clark Street', 'Illinois','99865', 'Chicago')

insert into Person values(20, 'Roger', 'WKWSCI', 8896657, 'roger@ntu.edu.sg', 'Alley Street', 'Illinois','99865', 'Chicago')

insert into Person values(21, 'Tom Fox', 'SPMS', 9996864, 'tom@ntu.edu.sg', 'Harper Court Street', 'Illinois','45552', 'Chicago')

insert into Person values(22, 'Luciano Drew', 'ECE', 99964321, 'luciano@ntu.edu.sg', 'Greenview Court Street', 'Illinois','96823', 'Chicago')

insert into Person values(23, 'Lucy Sky', 'SSS', 9864487, 'lucy@ntu.edu.sg', 'Greenview Court Street', 'London','NW19H', 'Camden')

insert into Person values(24, 'Ringo Starr', 'SPMS', 2237737, 'ringo@ntu.edu.sg', 'Bloomsbury Street', 'London','NE29H', 'Camden')

insert into Person values(25, 'Eden Project', 'ECE', 3632155, 'eden@ntu.edu.sg', 'Bloomsbury Street', 'London','NE29H', 'Camden')

insert into Person values(26, 'Whitney Houston', 'SOH', 99798126, 'whit@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(27, 'Frank Sinatra', 'SOH', 6664475, 'frank@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(28, 'George Harrison', 'SPMS', 9931645, 'george@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(29, 'Paul McCartney', 'SPMS', 9935645, 'paul@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(30, 'John Lennon', 'SPMS', 9932245, 'john@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(31, 'Clay Cauti', 'SPMS', 545656, 'clay@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(32, 'Justin Vernon', 'WKWSCI', 2213757, 'justin@ntu.edu.sg', 'Kentish Town Street', 'London','NE89H', 'Camden')

insert into Person values(33, 'Sally Anger', 'SPMS', 65226557, 'sally@ntu.edu.sg', 'Regent Street','London','NW81A', 'Camden')

insert into Person values(34, 'Ella Fitzgerald', 'WKWSCI', 31469485, 'ella@ntu.edu.sg', 'Regent Street', 'London','NW81A', 'Camden')

insert into Person values(35, 'Duke Ellington', 'WKWSCI', 3146485, 'duke@ntu.edu.sg', 'Regent Street', 'London','NW81A', 'Camden')

insert into Person values(36, 'Chet Baker', 'WKWSCI', 9871932, 'chet@ntu.edu.sg', 'Regent Street', 'London','NW81A', 'Camden')

insert into Person values(37, 'Nick Murphy', 'WKWSCI', 6549453, 'n@ickntu.edu.sg', 'Regent Street', 'London','NW81A', 'Camden')

insert into Person values(38, 'Wes Monty', 'WKWSCI', 2549453, 'wes@ntu.edu.sg', 'Westminster Street', 'London','NW81A', 'Westminster, London')

insert into Person values(39, 'Eddie Mercury', 'WKWSCI', 569453, 'ed@ntu.edu.sg', 'Westminster Street', 'London','NW81A', 'Westminster, London')

insert into Person values(40, 'Chester Bennington', 'SPMS', 996587, 'chester@ntu.edu.sg', 'Westminster Street', 'London','NW81A', 'Westminster, London')

SELECT \* from Person

insert into Stakeholder values(1, 'Industry Partner')

insert into Stakeholder values(3, 'Government')

insert into Stakeholder values(10, 'Public')

insert into Stakeholder values(4, 'Funding Agency')

insert into Stakeholder values(26, 'Public')

SELECT \* from Stakeholder

insert into Comments values('2019-09-20 19:05:00', 'CyberSecurity Lab computer should have dual monitors for monitoring threats', 10)

insert into Comments values('2019-10-01 17:54:01', 'Business Library needs additional reference books for Quant Global Trading Strategies', 1)

insert into Comments values('2019-04-12 09:37:12', 'Course structure of Engineers and Society should be updated according to Singapore Engineer Ethics Law passed in 2018', 3)

insert into Comments values('2019-03-22 14:20:45', 'Funding budget provided by DTSA to Computer Engineering department increased to S$10 million', 3)

insert into Comments values('2019-04-12 17:16:10', 'Lab assistants for Hardware Projects lab should be increased to 3 person to accomadate for increase in number of students', 3)

insert into Comments values('2018-11-01 13:08:54', 'Scholarships awarded for Extrordinary Underprivelged students increased to 25', 3)

insert into Comments values('2019-07-07 09:01:42', 'MOE grants for international students to be awarded to maximum of 67 incoming SCSE students', 3)

insert into Comments values('2019-02-01 08:30:08', 'Additional 4 scholarships to be for Industrial Attachment in QuantTradeSinga', 1)

SELECT \* from Comments

insert into Professor values (2, 'Quantum Computing, Algorithms, Post-Quantum Cryptography')

insert into Professor values (6, 'Database Management')

insert into Professor values (8, 'Financial Management, Trading')

insert into Professor values (11, 'Eastern Philosophy, Modern Russian Philosophy')

insert into Professor values (12, 'Cryptography, Algorithms, Mathematical Computing')

insert into Professor values (13, 'Algorithms')

insert into Professor values (14, 'Blockchain, CyberSecurity')

insert into Professor values (15, 'Algebraic Number Theory, Calculus, Linear Algebra')

insert into Professor values (16, 'Combinatorics, Statistics')

insert into Professor values (34, 'Social Media Communication and Ethics')

Select \* from Professor

insert into Staff values(17, 104, 'Information Officer', '2016-02-01')

insert into Staff values(18, 105, 'Fullerton Medical Staff', '2005-04-14')

insert into Staff values(23, 115, 'One Stop Manager', '2002-10-23')

insert into Staff values(24, 116, 'Hardware Technician', '2010-08-14')

insert into Staff values(25, 117, 'Software Laboratory Assistant', '2002-10-23')

insert into Staff values(31, 124, 'Software Technician', '2003-01-31')

insert into Staff values(21, 126, 'Robotics Laboratory Assistant', '2002-06-14')

insert into Staff values(33, 134, 'Pscychology Experimental Lab Assistant', '2013-06-23')

Select \* from Staff

insert into Admin\_staff values(104,'Information and Tecchnology')

insert into Admin\_staff values(105,'Health and Medical')

insert into Admin\_staff values(115,'Management and Processing')

Select \* from Admin\_Staff

insert into Student values(5, 245, 'Accounting\_Negotiations', '2016-07-23')

insert into Student values(7, 246, 'Computer Science\_Mathematics', '2016-07-23')

insert into Student values(9, 247, 'Marketing\_Graphic Design', '2016-07-23')

insert into Student values(19, 276, 'Marketing\_', '2016-07-23')

insert into Student values(20, 278, 'International Policy Making\_Statistics', '2016-07-23')

insert into Student values(22, 279, 'Electronics Communication\_Physics', '2016-07-23')

insert into Student values(27, 280, 'Philosophy', '2016-07-23')

insert into Student values(28, 293, 'Mathematics', '2016-07-23')

insert into Student values(29, 294, 'Applied Physics', '2016-07-23')

insert into Student values(30, 295, 'Theoretical Physics', '2016-07-23')

insert into Student values(32, 296, 'Communication Media', '2016-07-23')

Select \* from Student

Insert Into Laboratory values ('Algorithm and Optimization Lab','SPMS', 'South Spine SS4.1')

Insert Into Laboratory values ('Electronic Communication Lab 2','ECE', 'South Spine SS2')

Insert Into Laboratory values ('Supercomputer and Qunatum Computing Lab','SPMS', 'South Spine SS1')

Insert Into Laboratory values ('Robotics and Electronics Testing Laboratory','SPMS', 'South Spine SS4')

Insert Into Laboratory values ('Psychology and Memory Projects Laboratory','WKWSCI', 'North Spine NS4')

Select \* from Laboratory

insert into Technical\_staff values (116,'SPMS', 'Algorithm and Optimization Lab')

insert into Technical\_staff values (117,'ECE', 'Electronic Communication Lab 2')

insert into Technical\_staff values (124,'SPMS', 'Supercomputer and Qunatum Computing Lab')

insert into Technical\_staff values (126,'SPMS', 'Robotics and Electronics Testing Laboratory')

insert into Technical\_staff values (134,'WKWSCI', 'Psychology and Memory Projects Laboratory')

Select \* from Technical\_Staff

INSERT INTO Equipment VALUES (13, 'Algorithm and Optimization Lab', 'SPMS', 'NVIDIA GeForce 1050M', '2018-04-03', 3314)

INSERT INTO Equipment VALUES (14, 'Algorithm and Optimization Lab', 'SPMS', 'NVIDIA GeForce 1050M', '2018-04-03', 3973)

INSERT INTO Equipment VALUES (15, 'Algorithm and Optimization Lab', 'SPMS', 'NVIDIA GeForce 1050M', '2018-04-03', 9801)

INSERT INTO Equipment VALUES (16, 'Algorithm and Optimization Lab', 'SPMS', 'NVIDIA GeForce 1050M', '2018-04-03', 8899)

INSERT INTO Equipment VALUES (17, 'Algorithm and Optimization Lab', 'SPMS', 'Intel IntelliSense Monitor 4k', '2019-07-23', 8994)

INSERT INTO Equipment VALUES (18, 'Algorithm and Optimization Lab', 'SPMS', 'Intel IntelliSense Monitor 4k', '2019-07-23', 8994)

INSERT INTO Equipment VALUES (19, 'Algorithm and Optimization Lab', 'SPMS', 'Intel IntelliSense Monitor 4k', '2019-07-23', 8994)

INSERT INTO Equipment VALUES (7, 'Electronic Communication Lab 2','ECE', 'Wires', '2016-11-14', 6656)

INSERT INTO Equipment VALUES (8, 'Electronic Communication Lab 2','ECE', 'Arduino Board v3.2', '2015-02-16', 6645)

INSERT INTO Equipment VALUES (10, 'Electronic Communication Lab 2','ECE', 'High Frequency Radio Transmittor', '2016-11-14', 9964)

INSERT INTO Equipment VALUES (11, 'Electronic Communication Lab 2','ECE', 'High Frequency Radio Transmittor', '2016-11-14', 9964)

INSERT INTO Equipment VALUES (2, 'Supercomputer and Qunatum Computing Lab','SPMS', 'Intel Core i9 Cabinet', '2016-02-11', 3135)

INSERT INTO Equipment VALUES (3, 'Supercomputer and Qunatum Computing Lab','SPMS', 'Intel Core i9 Cabinet', '2015-02-19', 3135)

INSERT INTO Equipment VALUES (5, 'Robotics and Electronics Testing Laboratory','SPMS', 'Raspberry Pi 5', '2018-04-01', 9244)

INSERT INTO Equipment VALUES (43, 'Robotics and Electronics Testing Laboratory','SPMS', 'Raspberry Pi 5', '2017-12-08', 9967)

INSERT INTO Equipment VALUES (33, 'Robotics and Electronics Testing Laboratory','SPMS', '4 2" diameter high resistance wheels', '2018-10-23', 7787)

INSERT INTO Equipment VALUES (25, 'Robotics and Electronics Testing Laboratory','SPMS', 'Granular Motor Cascade', '2016-04-22', 9133)

Select \* from Equipment

INSERT INTO Research\_laboratory VALUES('Psychology and Memory Projects Laboratory','WKWSCI')

INSERT INTO Research\_laboratory VALUES('Supercomputer and Qunatum Computing Lab','SPMS')

INSERT INTO Teaching\_laboratory VALUES('Electronic Communication Lab 2','ECE')

INSERT INTO Teaching\_laboratory VALUES('Robotics and Electronics Testing Laboratory','SPMS')

INSERT INTO Teaching\_laboratory VALUES('Algorithm and Optimization Lab', 'SPMS')

INSERT INTO Undergraduate VALUES (245,1)

INSERT INTO Undergraduate VALUES (246,3)

INSERT INTO Undergraduate VALUES (247,3)

INSERT INTO Undergraduate VALUES (276,1)

INSERT INTO Undergraduate VALUES (278,2)

INSERT INTO Undergraduate VALUES (279,1)

INSERT INTO Undergraduate VALUES (295,4)

INSERT INTO Graduate VALUES(280,1)

INSERT INTO Graduate VALUES(293,2)

INSERT INTO Graduate VALUES(294,1)

INSERT INTO Graduate VALUES(296,3)

INSERT INTO Supervise Values(11,280, 'Death and Afterlife in Easstern Philosophy')

INSERT INTO Supervise values(2,293, 'Algebraic Number Theory in Modern Cryptography')

INSERT INTO Supervise values(12,293, 'Algebraic Number Theory in Modern Cryptography')

INSERT INTO Supervise values(14,293, 'Algebraic Number Theory in Modern Cryptography')

INSERT INTO Supervise values(2,294, 'Dark Energy Detection')

INSERT INTO Supervise values(34,296, 'Effects of Social Media on News Delivery')

INSERT INTO Supervise values(8,296, 'Effects of Social Media on News Delivery')

INSERT INTO Assign values ('Supercomputer and Qunatum Computing Lab','SPMS',293)

INSERT INTO Assign values ('Supercomputer and Qunatum Computing Lab','SPMS',294)

Insert into Timetable values ('2019-09-20 09:00:00', 'Cryptography', 2)

Insert into Timetable values ('2019-09-21 09:00:00', 'Cryptography', 2)

Insert into Timetable values ('2019-09-23 09:00:00', 'Cryptography', 2)

Insert into Timetable values ('2019-09-27 09:00:00', 'Cryptography', 2)

Insert into Timetable values ('2019-09-28 09:00:00', 'Cryptography', 2)

Insert into Timetable values ('2019-09-28 10:00:00', 'Algorithms', 2)

Insert into Timetable values ('2019-09-20 10:00:00', 'Databases', 6)

Insert into Timetable values ('2019-09-22 10:00:00', 'Databases', 6)

Insert into Timetable values ('2019-09-27 10:00:00', 'Databases', 6)

Insert into Timetable values ('2019-09-29 10:00:00', 'Databases', 6)

Insert into Timetable values ('2019-09-30 10:00:00', 'Databases', 6)

INSERT INTO Course\_taken values (1007, 247, 13, 'Data Structure and Algorithms', '2019-10-29')

INSERT INTO Course\_taken values (1007, 247, 13, 'Data Structure and Algorithms', '2019-10-30')

INSERT INTO Course\_taken values (1007, 247, 13, 'Data Structure and Algorithms', '2019-10-31')

INSERT INTO Course\_taken values (1007, 247, 13, 'Data Structure and Algorithms', '2019-11-3')

INSERT INTO Course\_taken values (1007, 246, 14, 'Data Structure and Algorithms', '2019-10-29')

INSERT INTO Course\_taken values (1007, 246, 34, 'Data Structure and Algorithms', '2019-10-30')

INSERT INTO Course\_taken values (1007, 246, 13, 'Data Structure and Algorithms', '2019-10-31')

INSERT INTO Course\_taken values (1007, 246, 13, 'Data Structure and Algorithms', '2019-11-3')

INSERT INTO Course\_taken values (2800, 279, 2, 'Calculus III', '2019-10-29')

INSERT INTO Course\_taken values (2800, 279, 6, 'Calculus III', '2019-10-30')

INSERT INTO Course\_taken values (2800, 280, 6, 'Calculus III', '2019-10-31')

INSERT INTO Course\_taken values (2800, 280, 8, 'Calculus III', '2019-11-02')

INSERT INTO Course\_taken values (2800, 247, 11, 'Calculus III', '2019-10-29')

INSERT INTO Course\_taken values (2800, 246, 13, 'Calculus III', '2019-10-30')

INSERT INTO Course\_taken values (2800, 245, 14, 'Calculus III', '2019-10-31')

INSERT INTO Course\_taken values (2800, 245, 12, 'Calculus III', '2019-11-02')

INSERT INTO Course\_taken values (2800, 276, 12, 'Calculus III', '2019-10-29')

INSERT INTO Course\_taken values (2800, 276, 12, 'Calculus III', '2019-10-30')

INSERT INTO Course\_taken values (2800, 279, 12, 'Calculus III', '2019-10-31')

INSERT INTO Course\_taken values (2800, 247, 12, 'Calculus III', '2019-11-02')

INSERT INTO Experiments values('Electronic Communication Lab 2','ECE', 279, '2019-04-24',1)

INSERT INTO Experiments values('Electronic Communication Lab 2','ECE', 279, '2019-04-25',1)

INSERT INTO Experiments values('Robotics and Electronics Testing Laboratory','SPMS', 279, '2019-05-01',0)

INSERT INTO Experiments values('Robotics and Electronics Testing Laboratory','SPMS', 279, '2019-05-02',0)

INSERT INTO Experiments values('Robotics and Electronics Testing Laboratory','SPMS', 295, '2019-05-01',1)

INSERT INTO Experiments values('Robotics and Electronics Testing Laboratory','SPMS', 295, '2019-05-02',1)

INSERT INTO Experiments values('Robotics and Electronics Testing Laboratory','SPMS', 295, '2019-05-03',0)

**Queries from Appendix A**

-------------1)

SELECT Person.person\_name, Stakeholder.person\_id

from Person,Stakeholder

where Person.person\_id=Stakeholder.person\_id AND Stakeholder.domain='Public'

-------------2)

Select Person.person\_id, Person.person\_name from Person

where Person.person\_id IN (SELECT Person.person\_id

from Person, Stakeholder, Comments

Where Stakeholder.person\_id=Comments.person\_id and Person.person\_id=Stakeholder.person\_id

Group by Person.person\_id HAVING count(Comments.topic)>=5)

-------------3)

SELECT Graduate.student\_id FROM Graduate,Assign

Where Graduate.student\_id=Assign.student\_id

group By Graduate.student\_id Having Count(Assign.lab\_name)>1

Intersect

SELECT Graduate.student\_id FROM Graduate,Supervise

Where Graduate.student\_id=Supervise.student\_id

group By Graduate.student\_id Having Count(Supervise.prof\_person\_id)>1

-------------4)

Select Professor.person\_id from Professor, Course\_taken

Where Professor.person\_id=Course\_taken.person\_id Group by Professor.person\_id having Count(Course\_taken.course\_name)>1

-------------5)

select distinct lab\_name, equipment\_name from Equipment

-------------6)

Select Undergraduate.student\_id from Undergraduate, Experiments

where Undergraduate.student\_id=Experiments.student\_id and attendance=0

group by Undergraduate.student\_id HAVING Count(attendance)>=1

------------7)

select Graduate.student\_id from Graduate, Course\_taken,Supervise

where Graduate.student\_id= Course\_taken.student\_id AND Graduate.student\_id=Supervise.student\_id

Group by Graduate.student\_id having count(Course\_taken.course\_id)>1 and count(Supervise.research\_topic)>=1