**Department of Computer Engineering**

**University of Peradeniya**

**CO226-Database Systems**

**Lab Sheet Number** : 07

**Topic** : Views, Triggers, Stored Procedures

**Due Date** : 1st February 2022 before 11:55 PM

Enum- E/18/375

Name- VINDULA K.P.A

**QUERIES**

1) CREATE DATABASE Lab07;

CREATE TABLE Student

-> (Name VARCHAR(20),

-> RegistrationNumber INT PRIMARY KEY,

-> GPA DOUBLE(3,2),

-> ConvocationRegistrationNumber INT,

-> Class VARCHAR(20));

INSERT INTO Student(Name,RegistrationNumber,GPA)

-> VALUES('Sameera',425,3.25),

-> ('Kasun',210,3.40),

-> ('Kalpa',201,3.10),

-> ('Chathura',312,3.85),

-> ('Lakmali',473,3.75),

-> ('Sidath',352,3.30),

-> ('Kumudu',111,3.70),

-> ('Nalin',456,3.05),

-> ('Rohani',324,3.70),

-> ('Chithra',231,3.30);

2) CREATE TABLE Convocation

-> (LastName VARCHAR(20),

-> Address VARCHAR(50),

-> Age INT,

-> RegistrationNumber INT,

-> ConvocationRegistrationNumber INT PRIMARY KEY,

-> FOREIGN KEY(RegistrationNumber) REFERENCES Student(RegistrationNumber));

3) DELIMITER // ;

CREATE PROCEDURE store\_student(IN p\_LastName VARCHAR(20),IN p\_Address VARCHAR(50),IN p\_Age INT,IN p\_RegistrationNumber INT,IN p\_ConvocationRegistrationNumber INT)

-> BEGIN

-> INSERT INTO Convocation(LastName,Address,Age,RegistrationNumber,ConvocationRegistrationNumber) values(p\_LastName,p\_Address,p\_Age,p\_RegistrationNumber,p\_ConvocationRegistrationNumber);

-> UPDATE Student SET ConvocationRegistrationNumber=p\_ConvocationRegistrationNumber WHERE RegistrationNumber=p\_RegistrationNumber;

-> END//

4) CALL store\_student('Kumara','no go road,galle',23,425,1)//

CALL store\_student('Gedara','high road,kandy',25,312,2)//

CALL store\_student('Silva','A4 road,matara',29,473,3)//

CALL store\_student('Perera','A6 road,Moratuwa',35,352,4)//

CALL store\_student('Ruwanpura','A10 road,Jaffna',42,456,5)//

DELIMITER ; //

mysql> SELECT \* FROM STUDENT;

5) CREATE VIEW Registered

-> AS

-> SELECT Name,Student.RegistrationNumber,GPA,Student.ConvocationRegistrationNumber,Address,Age

-> FROM Student,Convocation

-> WHERE Student.ConvocationRegistrationNumber IS NOT NULL AND Student.ConvocationRegistrationNumber=Convocation.ConvocationRegistrationNumber;

6) CREATE VIEW NotRegistered

-> AS

-> SELECT Name,Student.RegistrationNumber,GPA

-> FROM Student

-> WHERE Student.ConvocationRegistrationNumber IS NULL;

7) CREATE TABLE LateRegistration

-> (LastName VARCHAR(20),

-> Address VARCHAR(50),

-> Age INT,

-> RegistrationNumber INT,

-> ConvocationRegistrationNumber INT PRIMARY KEY,

-> FOREIGN KEY(RegistrationNumber) REFERENCES Student(RegistrationNumber));

8) DELIMITER // ;

mysql> CREATE TRIGGER Late\_Registration\_Insert

-> AFTER INSERT ON LateRegistration

-> FOR EACH ROW

-> BEGIN

-> UPDATE Student

-> SET Student.ConvocationRegistrationNumber=NEW.ConvocationRegistrationNumber

-> WHERE Student.RegistrationNumber=NEW.RegistrationNumber;

-> END//

9) INSERT INTO LateRegistration

-> VALUES('Niman','A11 road,kegalle',34,210,6),

-> ('Gamage','A12 road,kegalle',36,201,7),

-> ('Liyanage','A14 road,mawanalla',45,111,8),

-> ('Viyad','A18 road,mawanalla',54,324,9),

-> ('Doom','A43 road,mawanalla',53,231,10)//

10) CREATE PROCEDURE Class()

-> BEGIN

-> UPDATE Student

-> SET Class='First class honors'

-> WHERE GPA >=3.7;

-> UPDATE Student

-> SET Class='Second class honors-upper division'

-> WHERE GPA <3.7 AND GPA >=3.3;

-> UPDATE Student

-> SET Class='Second class honors-lower division'

-> WHERE GPA <3.3 AND GPA >=2.7;

-> UPDATE Student

-> SET Class='Third class honors'

-> WHERE GPA <2.7 AND GPA >=2;

-> END//

ALTER TABLE Student

-> modify Class VARCHAR(100)//

CALL Class//

**SCREENSHOTS**

1)

A picture containing table

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2)A picture containing text

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4)A picture containing text

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5)

A screenshot of a computer

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6)Text

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7)A computer screen capture

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