

Department of Computer Engineering

University of Peradeniya

CO226-Database Systems

Lab Sheet Number : 07

Topic : Views, Triggers, Stored Procedures

Lab Date : 04th & 12th November 2020 from 2:00 PM to 4:00 PM

Due Date : 21st November 2020 before 11:55 PM

Submission :

Submit the queries and results in a pdf file named E17XXXLab07.pdf. No submissions are allowed after the deadline.

Lab Task:

Following table contains grade records of some final year students of a faculty.

Name	Registration Number	GPA	Convocation Registration Number	Class
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		

1. Create a table named Student to insert the above data. Determine a suitable primary key for this table. Populate your table with these data.
2. Create another table named Convocation to store the details about the registration to the convocation. Table should have fields to hold the Last Name, Address, Age, Registration Number and Convocation Registration Number of each student. The Convocation Registration Number is given when a student registers for the convocation. Determine a suitable primary key and a foreign key for this table.
3. Create a stored procedure to store the details about the students as one student at a time in the Convocation table when they register for the convocation. (In the registration

a unique convocation registration number should be given to each student and at the same time Convocation Registration Number column in the Student table should be updated by inserting relevant registration numbers for that student.)

4. Perform the registration for Sameera, Chathura, Lakmali, Sidath and Nalin with registration numbers 1, 2, 3, 4 and 5 respectively. Give suitable meaningful values for the rest of the columns for each of these students. Observe the updates made to the Student table.
5. Create a view called Registered to retrieve the details Name, Registration Number, GPA, Convocation Registration Number, Address and Age of those students who have registered for the convocation. Observe the view with the respective data.
6. Create a view called NotRegistered to retrieve the details Name, Registration Number, GPA, Address and Age of those students who have not registered for the convocation. Observe the view with the respective data.
7. Create a table called LateRegistration with the same columns as the Convocation table to store the details about the students who do the late registration.
8. Write a trigger to monitor the state of the LateRegistration table, so that after a late registration is done in this table, the Student table should be updated with the relevant Convocation Registration Number for that student.
9. Perform the registration for Kasun, Kalpa, Kumudu, Rohani and Chithra with registration numbers 6, 7, 8, 9 and 10 respectively. Give suitable meaningful values for the rest of the columns for each of these students. Observe the updates made to the Student table.
10. Create a stored procedure to and fill the class column as follows.
 - A. GPA ≥ 3.7 First class honors
 - B. GPA < 3.7 and GPA ≥ 3.3 Second class honors-upper division
 - C. GPA < 3.3 and GPA ≥ 2.7 Second class honors-lower division
 - D. GPA < 2.7 and GPA ≥ 2.0 Third class honors

Call the stored procedure which you created at this step and observe the class values assigned to each student.