S3095D DBMS Lab

Exercise No: 3 & 4

Marks: 10

Date of Announcement: **25.08.2021** **Due Date: 05.09.2021**

Problem Definition

For the web portal design problem given in Exercise#2, design a relational database by translating the ER Model (ERM) (which you have already developed) into a Relational Model. Ensure that primary key, foreign key and cardinalities are fulfilled in the ER-to-Relational mapping.

Students are requested to make sure that the following points are satisfied in your answer script:

i. Incorporate the necessary suggestions (if any) given by the TAs during the evaluation of Exercise#2 in your ER diagram. Perform the ER-to-relational mapping only after making such necessary modifications in the ER diagram.

ii. Translate the ERM, which you have developed, into the corresponding Relational Model.

iii. Create tables in the database based on your ER-to-relational mapping.

iv. Insert at least **five** tuples in all the tables.

v. Make sure to use **all** the following SQL commands in your relational database. You may take any table to suitably explain/implement the SQL commands.

   Create DB, Drop DB, Backup DB, Create Table, Alter Table, Delete, Update, Where, Constraints, Not NULL, Exists, Unique, Primary Key, Foreign Key, Views, Auto Increment, SQL Injection, Join, Inner Join, Outer join, Left join, Right join, Group by/having, Union, Union all, Intersect, Except, SQL Like clause, Subqueries using aggregate operators (max, min, avg, count).

vi. Upload your answers in PDF format to Eduserver before the deadline (**05.09.2021, 23:59**).

Tentative Plan of Evaluation

Sl. No	Task	Details	Marks
01	Submission of Report (05.09.2021, 23:59). Based on the question posted in Eduserver (25.08.2021)	i. In your ER diagram, incorporate the necessary suggestions (if any) given by the TAs during the evaluation of Exercise 2. Only after making the required modifications (if any) do the ER mapping. ii. Create tables in the Database (based on your ER Mapping) and insert at least **five** tuples in the tables. iii. Usage of **all** the following SQL commands in the relational database. You may take any table to suitably explain/implement the SQL commands: Create DB, Drop DB, Backup DB, Create Table, Alter Table, Delete, Update, Where, Constraints, Not NULL, Exists, Unique, Primary Key, Foreign Key, Views, Auto Increment, SQL Injection, Join, Inner Join, Outer join, Left join, Right join, Group by/having, Union, Union all, Intersect, Except, SQL Like clause, Subqueries using aggregate operators (max, min, avg, count). iv. Upload your pdf file to Eduserver before the deadline (05.09.2021, 23:59).	2.5
02	Evaluation – I (on **07.09.2021**)	i. The lab team will post the question to you on 07.09.2021 at 1:30 PM, and you can take 45 minutes to upload the solution script in Eduserver (file format: pdf file). ii. Evaluation will not be conducted for those who fail to submit their solutions on time. Late submissions are not allowed to participate in viva.	5
03	Evaluation –II (on **07.09.2021**)	Based on the submission, viva will be conducted for students. The viva schedule will be circulated later.	2.5