

CS355 Database Lab

Date: 10th Sep 2020

Deadline: 11th Sep 2020 (9:00 am)

Assignment 4

Submission File Name: CS355_assign4.txt

In today's lab, perform the followings using MySQL database system.

You can login as **scot/tiger** and use your **dblab** database that you have already created for your previous assignments. You must have the following tables available in the **dblab** database.

- Suppliers(SID varchar (10), SName varchar (10), City varchar (10)
- Products (PID varchar(10), PName varchar(10), WarrantyPeriod smallint, DoM date)
- SP (SID varchar(10), PID varchar(10), Qty smallint) with SID and PID are defined as the foreign key constraint to Suppliers (SID) and Products (PID) respectively
- SP table basically provides which supplier has supplied which products and in how many quantities.

Task A)

For the fulfilling of the following requirements, write the necessary MySQL commands.

In the Suppliers table, assume the values of SID are of the form 'sup1221', 'sup3838', etc. Thus, SID contains a 'sup' prefix, followed by a four digit number. Also, add one *email* attribute (varchar (20)). The valid values of the email will be of the form 'abcd@xyz.com'

Similarly, in the Products table, PID contains a 'prd' prefix string and then it is followed by a '-' (dash) and finally followed by a 3/4 digits. Thus, some valid PID values could be 'prd-373', 'prd-9291', etc. Also, assume that the weight values are in gm unit.

Task B)

For each of the following questions, write a MySQL query. You need to insert required tuples in the tables to check whether your queries are working or not.

#1) For each PID of Products table, extract only the number part from PIDs.

#2) For each entry of SP table, display SID, PID and OrderID. Here, OrderID needs to be derived from SID and PID. Let's say SID is 'sup1221' and PID is 'prd-373' then OrderID will be '*sup1221@prd-373#'

#3) For each entry of Suppliers table, display the SID by replacing the 'sup' string of SIDs with 'sppl' string.

#4) Find the unique domain name from the email attribute. Domain name refers to the string after '@' of email value.

#5) For each PID of Product table, display the PID, weight and the weight_in_kg

#6) For each PID, check whether the numeric field of each PID is a palindrome or not

#7) Find the details of Suppliers who have supplied atleast one product with WarrantyPeriod greater than 2.

#8) Find the SID who have supplied all items.

#9) Create a view to list the products which have not been supplied by any suppliers so far.

#10) Create a view to show the list of SIDs who have never supplied more than 5 quantity items in a single purchase.

Now write all the MySQL queries that you have used to perform the aforementioned functionalities in **CS355_assign4.txt** file. You should mention your name and roll no at the top of this file.

Upload the file using the following link –

https://www.iitp.ac.in/~samrat/CS354_CS355/submission