Assignment - 5
Topic: SQL Queries
Course: DBMS Lab [MA39204]

Department of Mathematics
Indian Institute of Technology Kharagpur

Time: **2 hours 45 mins** Date: **01-Feb-2023**

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General Instructions: Do NOT use mobile phones during Lab hours. If anyone indulges in malpractice, his/her marks will be deducted.

Submit the assignment to the email-id: dbmslabmathiitkgp@gmail.com
Subject of the email should be: rollNumber_dd_mm
Send a text file which should contain the mysql inputs and outputs. Name of that file should be: rollNumber_dd_mm.txt

- `SELECT` - extracts data from a database
- `UPDATE` - updates data in a database
- `DELETE` - deletes data from a database
- `INSERT INTO` - inserts new data into a database
- `CREATE DATABASE` - creates a new database
- `ALTER DATABASE` - modifies a database
- `CREATE TABLE` - creates a new table
- `ALTER TABLE` - modifies a table
- `DROP TABLE` - deletes a table
- `WHERE` - used to filter records.
- `ORDER BY` - used to sort the result-set in ascending or descending order.
- `MIN()` - returns the smallest value of the selected column.
- `MAX()` - returns the largest value of the selected column.
- `COUNT()` - returns the number of rows that matches a specified criterion.
- `AVG()` - returns the average value of a numeric column.
- `LIKE` - used in a `WHERE` clause to search for a specified pattern in a column.
- The percent sign (%) represents zero, one, or multiple characters.
- The underscore sign (_) represents one, single character.
- `GROUP BY` - statement groups rows that have the same values into summary rows, like "find the number of customers in each country".
- `SELECT DISTINCT` - used to return only distinct (different) values.
- `AS` - used to give a table, or a column in a table, a temporary name.
- `BETWEEN` - operator selects values within a given range.

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1. Write SQL statements to generate the following tables for user, show, rating, genre and watch review.

USER

Field	Type	Key
User_Id	varchar(25)	PRI
User_Name	varchar(25)	
Age	decimal(3,0)	
DOB	date	

SHOWS

Field	Type	Key
Show_Id	decimal(5,0)	PRI
Title	varchar(30)	
Language	varchar(30)	
Release_date	date	

Email_Id	varchar(50)		
Watching_hour	decimal(5,0)		

Rating_Id	decimal(8,0)	FOREIGN	
Genre_Id	decimal(4,0)	FOREIGN	

RATING

Field	Type	Key
Rating_Id	decimal(8,0)	PRI
Show_Id	decimal(5,0)	FOREIGN
Star	decimal(2,0)	
Date	date	
Comment	varchar(100)	

GENRE

Field	Type	Key
Genre_Id	decimal(4,0)	PRI
Show_Id	decimal(5,0)	FOREIGN
Genre_name	varchar(30)	

WATCH_REVIEW

Field	Type
User_Id	varchar(25)
Rating_Id	decimal(8,0)
Show_Id	decimal(5,0)
Genre_Id	decimal(4,0)

2. INSERT the following data into user table

User_Id	**User_Name**	**DOB**	**Age**	**Email_Id**	**Watching_hour**
dip23	Dinesh Patel	2002-10-23	20	abc@email.com	125
vs2001	Vikram Sharma	2001-07-15	21	vik@email.com	329
agra30	Sukesh Agrawal	1993-02-09	30	sa@email.com	75
mg2509	Manish Gupta	1997-09-25	25	man@email.com	156
tri28	Trina Dutta	1995-11-09	27	tri28@email.com	249

3. INSERT the following data into show table

Show_Id	**Title**	**Release_date**	**Language**	**Rating_Id**	**Genre_Id**
156	Stranger Things	2016-07-15	English	4895	08
258	Sacred Games	2018-07-5	Hindi	7589	01
895	The Witcher	2019-12-20	English	5248	15
659	Money Heist	2017-05-02	English	3698	03
321	Breaking Bad	2008-01-20	English	6742	04

4. INSERT the following data into rating table

Rating_Id	Show_Id	Star	Date	Comment
4895	156	4	2021-05-16	Nice
3574	001	1	2018-11-29	Very bad
8517	010	5	2022-08-15	Wonderful
5248	895	3	2021-09-06	Could be better
6742	321	5	2020-10-19	Outstanding
3698	659	5	2021-09-30	Fantastic
7589	258	3	2022-01-25	Average

5. INSERT the following data into genre table

Genre_Id	Show_Id	Genre_name
01	258	Crime
03	659	Thriller
04	321	Suspense
15	895	Fantasy
08	156	Science Fiction

6. INSERT the following data into watch review table

User_Id	Show_Id	Rating_Id	Genre_Id
mg2509	156	4895	08
vs2001	321	6742	04
tri28	895	5248	15
agra30	659	3698	03
vs2001	258	7589	01

Show all the tables present in the database (all tables) and from now on after each change in the database show the change in database (only the affected table)

7. UPDATE the rating star to 4 for the rating id: 7589 from ratings table.
8. DELETE the rating for show id: 001 , form ratings table.
9. Insert the following details to User table for new user

User_Id	User_Name	DOB	Age	Email_Id	Watching_hour
sagar23	Sagar Bhowmik	1999-10-23	23	sag@email.com	12

10. Delete Rating_id column from show table. (**ALTER TABLE** table_name **DROP COLUMN** column_name;)

11. Change column name, from Watching_hour to Screen_time in users table . (Use alter table and change column command)
12. Select comments of all the five star ratings from the ratings table.
13. Select distinct users from the watch review table. (use select distinct)
14. Select email ids of the users whose age is greater than 25.
15. Select titles of the shows having rating star more or equal to 4.
16. Find the genre name of the show/shows which got outstanding comment in rating.
17. Find the details of the Users whose User_Name ends with ‘a’.
18. Find the no of shows for each genre in the descending order.
19. Find the title of the show which has 5th highest Star with and without using LIMIT keyword.
20. Find the show_id of the show having the highest Star in each genre.
21. Find the details of the shows whose title ends with ‘r’ and contains 11 alphabets.
22. Print the title of the shows after replacing ‘e’ with ‘E’.
23. Find the title of the show which was released in 2018 with ‘Hindi’ language.
24. Find the name of the users who are ages between 20 to 25.