

Indian Institute of Information Technology Vadodara

CS262: Database Management System

Lab 5

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1.) You have already created the E-R diagram of the following database,

MyFacebook

User: User_ID (unique for each user), User_Name, User_Email, User_Join_date, User_City_Name, User_City_Country,

Friend Friend_ID (a user may have zero or more friends), Friend_Since, Friend_Message_IN_Count, Friend_Message_Out_count,

Post Post_ID, Post_TimeStamp, Post_Text, Post_Attachemnt_ID (can be multiple), Post_Attachemnt_Text, Post_Attachemnt_Type (JPEG, MP3, MP4), Post_Attachemnt_Data, Post_User_ID (a user can have multiple), Post_Like_User_ID (can be multiple user liking a post), Post_Comment_ID (can be multiple comments for a post), Post_Comment_User_ID (can be multiple users commenting on a post), Post_Comment_Text, Post_Comment_TimeStamp (can be multiple users commenting on), Post_Comment_Like_UserID (can be multiple users commenting on), Post_Comment_Reply_ID (can be multiple replies to a comment), Post_Comment_Reply_UserID, Post_Comment_Reply_Addressed_to_UserID, Post_Comment_Reply_Text, Post_Comment_Reply_Time, Post_Comment_Reply_Like_UserID (can be multiple users commenting on)

In this lab create the database for this E-R diagram in the MySQL (take care of any integrity constraint). After creating the database insert some entries in the database. Then write the sql queries for the following listings,

- List the user having an email id.
- List all the users from a given city
- Find total number of users joined on a given date.
- List all the friends of a given user

- List total number of friends of a given user
- Find the total number of message in of a given user
- Find the total number of message out of a given user
- List all the post done by a given user's friend
- List all the post where a given user commented
- List all the post where a given user commented but his given friend not commented
- Find total number of likes in a given post
- Find the post with maximum likes

1. List the user having an email id:-

```
1 Select user_name,user_email from myfacebook.user;
```

2

Result Grid

	user_name	user_email
▶	jack	jack09@gmail.com
	smith	smithsteve23@gmail.com
	reacher	reacher@gmail.com
	dev	dev25@gmail.com
	junaid	junu@yahoo.com
	rashi	rashi89@yahoo.com
	raj	rajjoshi@gmail.com
	foram	foru67@yahoo.com
	happy	happysingh@gmail.com
	nikhil	nikhilsharma@gmail.com

2. List all the users from a given city:-

- City name is chicago:

```
1 • Select user_id, user_name from myfacebook.user where user_city_name='chicago';
```

2

Limit to 1000 rows

Result Grid

	user_id	user_name
▶	101	jack
•	HULL	HULL

Result Grid

Form Editor

3. Find total number of users joined on a given date:-

Date: 2020-01-25

The screenshot shows a database query interface. At the top, a toolbar contains various icons for file operations, search, and execution. Below the toolbar, a SQL query is entered in a text area: `1 • SELECT count(*) FROM myfacebook.user where user_join_date='2020-01-25';`. The query is highlighted in blue. Below the query area, a horizontal scrollbar is visible. Underneath the scrollbar, a toolbar includes a 'Result Grid' button, a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' button. The 'Result Grid' button is active, and a small table is displayed below it. The table has one column labeled 'count(*)' and one row with the value '3'. On the right side of the interface, a vertical sidebar contains buttons for 'Result Grid' (which is highlighted in blue), 'Form Editor', 'Field Types', and 'Query Stats'. At the bottom of the sidebar, there are up and down arrow buttons.

```
1 • SELECT count(*) FROM myfacebook.user where user_join_date='2020-01-25';
```

count(*)
3

4. List all the friends of a given user:

Given user_id is '104'

Limit to 1000 rows

1 • `SELECT * FROM myfacebook.friend where user_id='104';`

Result Grid

	friend_id	friend_seen	friend_msg_in	friend_msg_out	user_id
▶	110	yes	95	75	104
	116	yes	65	89	104
	117	yes	45	42	104
•	NULL	NULL	NULL	NULL	NULL

Form Editor

Field Types

5. List total number of friends of a given user:

Given user id is '104'

```
1 • SELECT count(*) FROM myfacebook.friend where user_id='104';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	count(*)
▶	3

Result Grid
Form Editor
Field Types
Query Stats

Result 3 x Read Only

6. Find total number of message in of a given user:
User_id= 108

The screenshot shows a database query tool interface. At the top, a toolbar contains various icons for file operations, execution, and navigation. Below the toolbar, a text area displays a SQL query: `1 • SELECT friend_msg_in, friend_id FROM myfacebook.friend where user_id='108';`. The query is highlighted in blue. Below the query area, a horizontal scrollbar is visible. At the bottom, a toolbar includes options for 'Result Grid', 'Filter Rows', 'Edit', 'Export/Import', and 'Wrap Cell Content'. The 'Result Grid' is active, showing a table with two columns: 'friend_msg_in' and 'friend_id'. The table contains two rows: the first row has values '78' and '118', and the second row has 'NULL' and 'NULL'. A vertical toolbar on the right side of the interface contains icons for 'Result Grid', 'Form Editor', and 'Field Types'.

```
1 • SELECT friend_msg_in, friend_id FROM myfacebook.friend where user_id='108';
```

	friend_msg_in	friend_id
▶	78	118
*	NULL	NULL

7. Find total number of message out of a given user:
User_id= 108

The screenshot shows a database query tool interface. At the top, a toolbar contains various icons for file operations, execution, and navigation. Below the toolbar, a text area displays a SQL query: `1 • SELECT friend_msg_out,friend_id FROM myfacebook.friend where user_id='108';`. The query is highlighted in blue. Below the query area, a horizontal scrollbar is visible. At the bottom, a toolbar includes options for 'Result Grid', 'Filter Rows', 'Edit', 'Export/Import', and 'Wrap Cell Content'. The 'Result Grid' is active, showing a table with two columns: 'friend_msg_out' and 'friend_id'. The table contains one row with the values '85' and '118' respectively. The first column is highlighted in blue. To the right of the table, a vertical sidebar contains icons for 'Result Grid', 'Form Editor', and 'Field Types'.

```
1 • SELECT friend_msg_out,friend_id FROM myfacebook.friend where user_id='108';
```

	friend_msg_out	friend_id
▶	85	118
*	NULL	NULL

8. List all the post done by a given user's friend:-
User id is 108:

Limit to 1000 rows

```

1 • SELECT * FROM myfacebook.posts where user_id
2   having (select friend_id from myfacebook.friend where user_id='108');

```

Result Grid

	user_id	post_id	post_text
▶	101	201	very good
	104	220	meet soon
	105	225	nice pictures
	103	235	i am waiting
	106	265	forensic
	108	300	height will be there
	107	325	get well soon
	108	345	junk food
	102	356	farwell to you
	104	509	goodnight
*	NULL	NULL	NULL

posts 2 x

Apply Revert

Result Grid
Form Editor
Field Types

9. List all the post where a given user commented:

Given user id= 108

Limit to 1000 rows

```

1 • SELECT * FROM myfacebook.posts where user_id='108';

```

Result Grid

	user_id	post_id	post_text
▶	108	300	height will be there
	108	325	get well soon
	108	345	junk food
*	NULL	NULL	NULL

Result Grid
Form Editor
Field

10. List all the post where a given user commented but his given friend not commented:

User id is 108:

The screenshot shows a database query editor with a toolbar at the top containing icons for file operations, execution, and search. The SQL query is as follows:

```
1 select post_id from myfacebook.comment where
2 (post_id='220' and post_id not in
3 (select post_id from myfacebook.comment where user_id='107'));
```

Below the query editor, the 'Result Grid' is displayed with the following data:

post_id
220

The interface includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. On the right side, there are buttons for 'Result Grid' and 'Form Editor'. The status bar at the bottom indicates 'comment 7' and 'Read Only'.

11. Find total number of likes in a given post:
Post id = 101

The screenshot shows a database query editor with a toolbar at the top. The SQL query is as follows:

```
1 select max(user_id) from myfacebook.likes where reply_id = '101';
```

Below the query editor, the 'Result Grid' is displayed with the following data:

max(user_id)
201

The interface includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. On the right side, there are buttons for 'Result Grid' and 'Form Editor'.