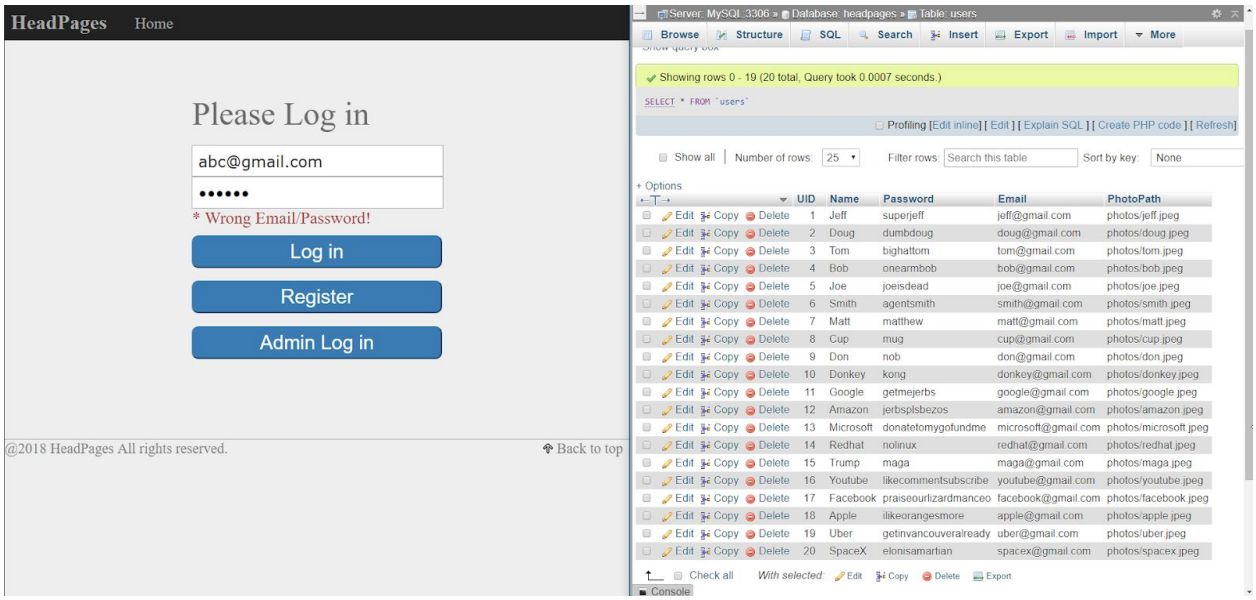
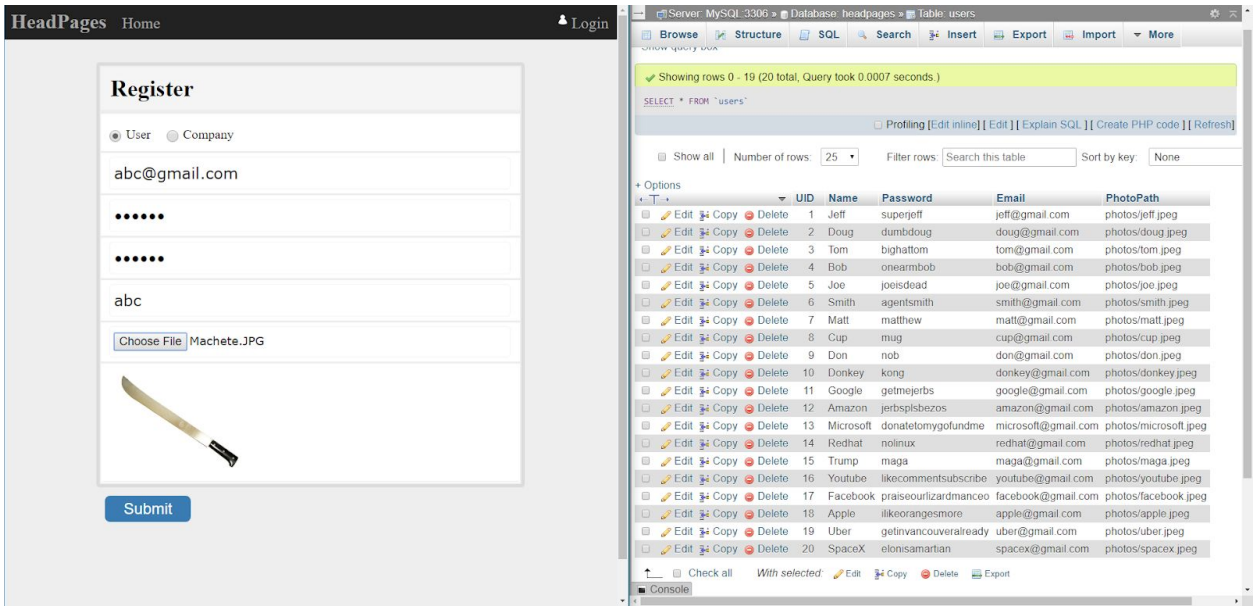
INSERT:

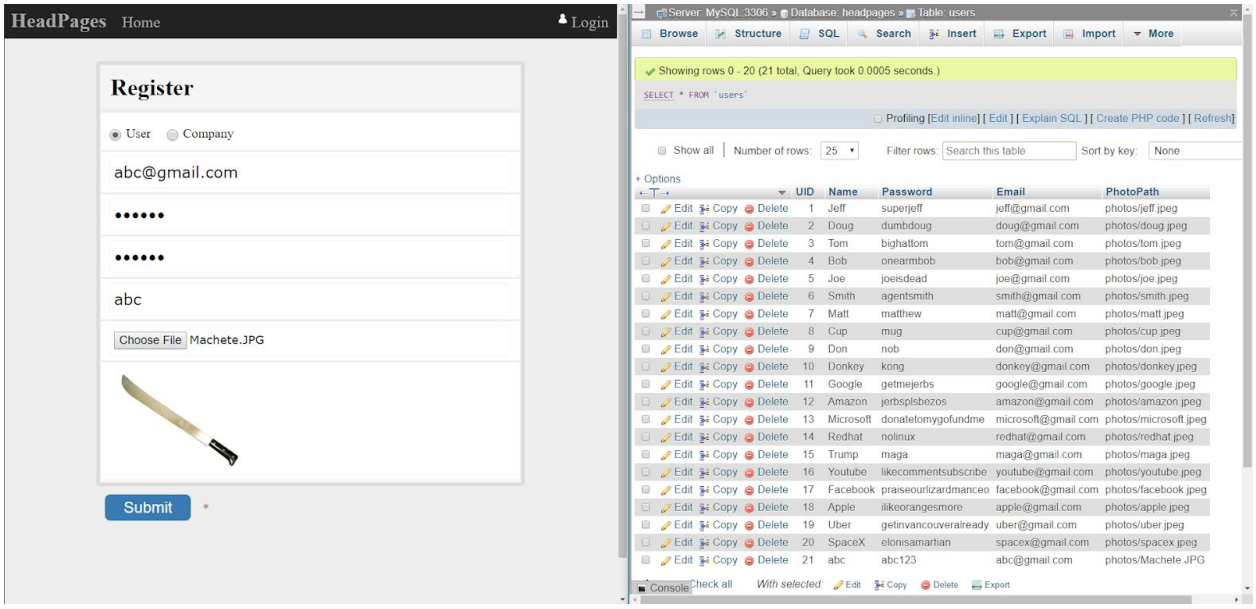
Before: Login failed because user does not exist.

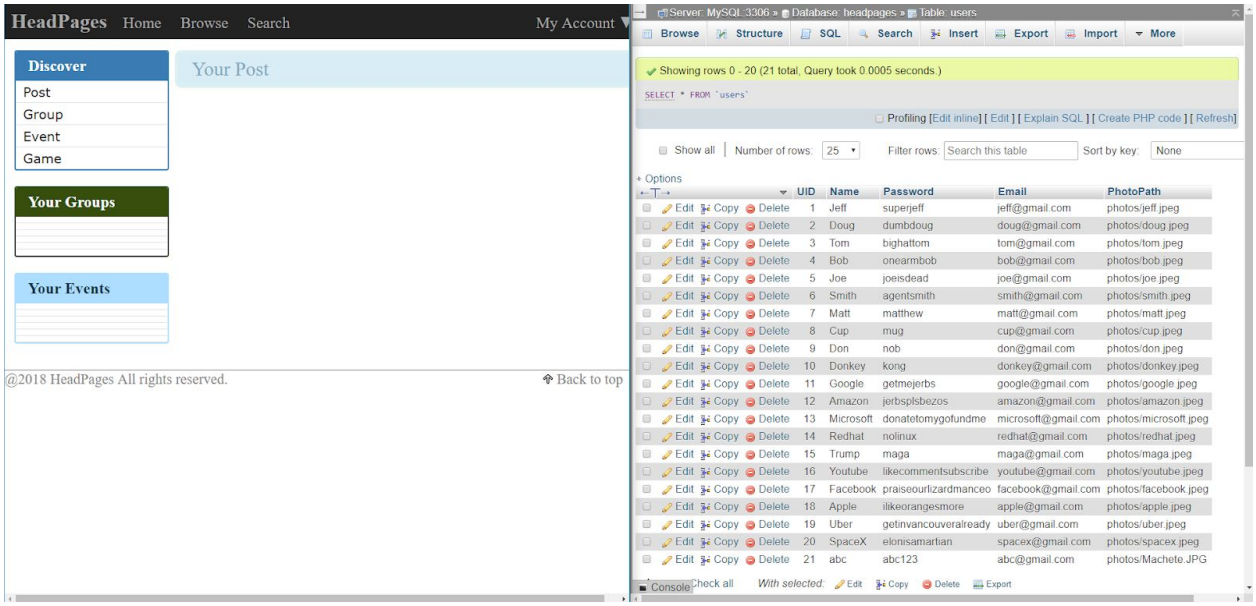


Now, we register a user.



User registered!

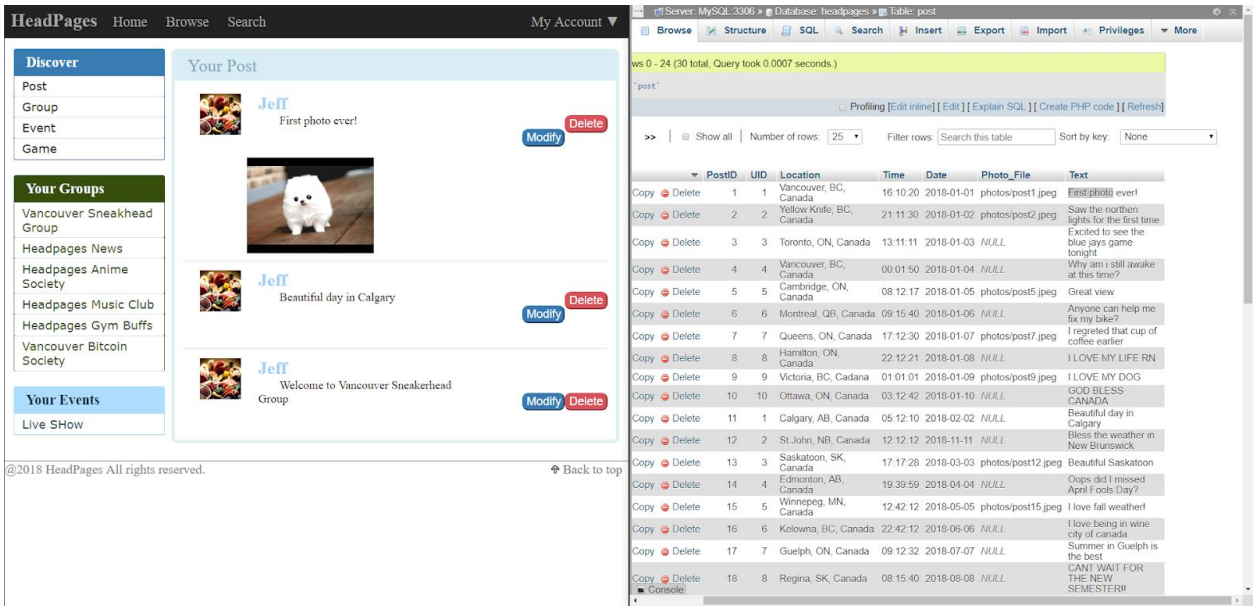




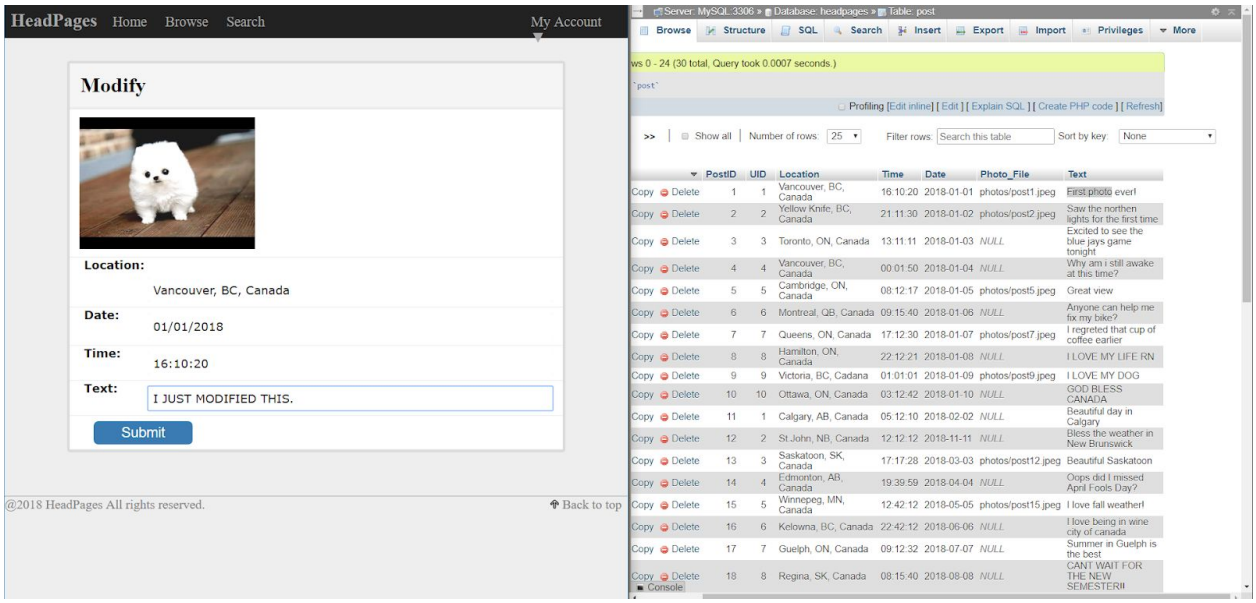
Logged in! Thus, INSERT new user worked.

UPDATE:

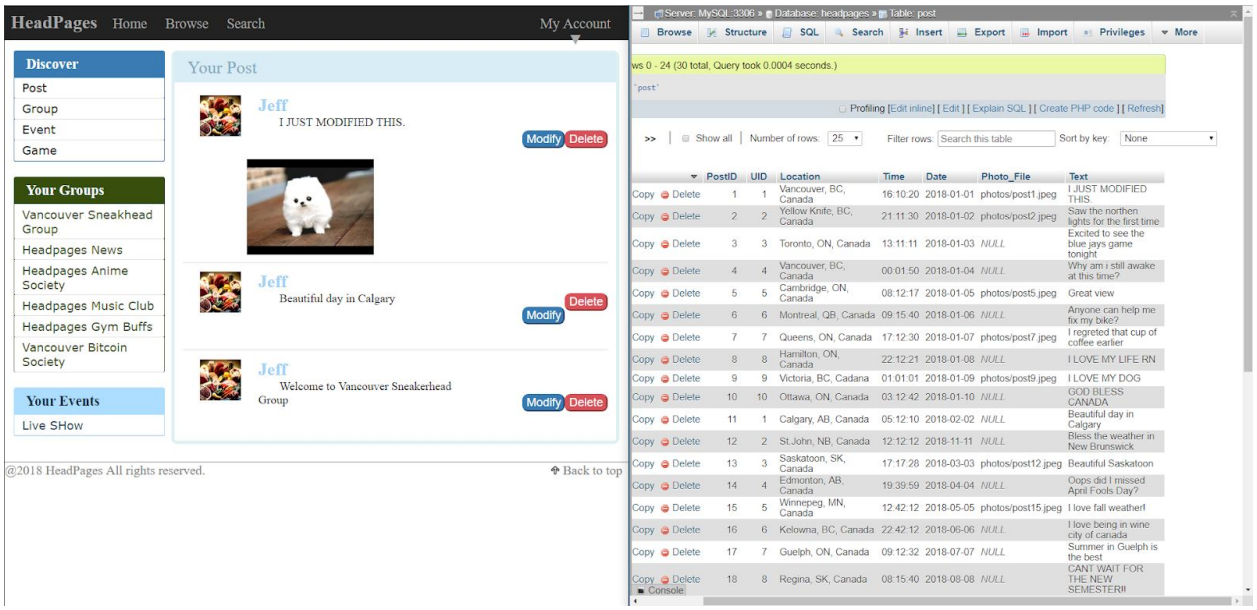
Before:



Modifying:

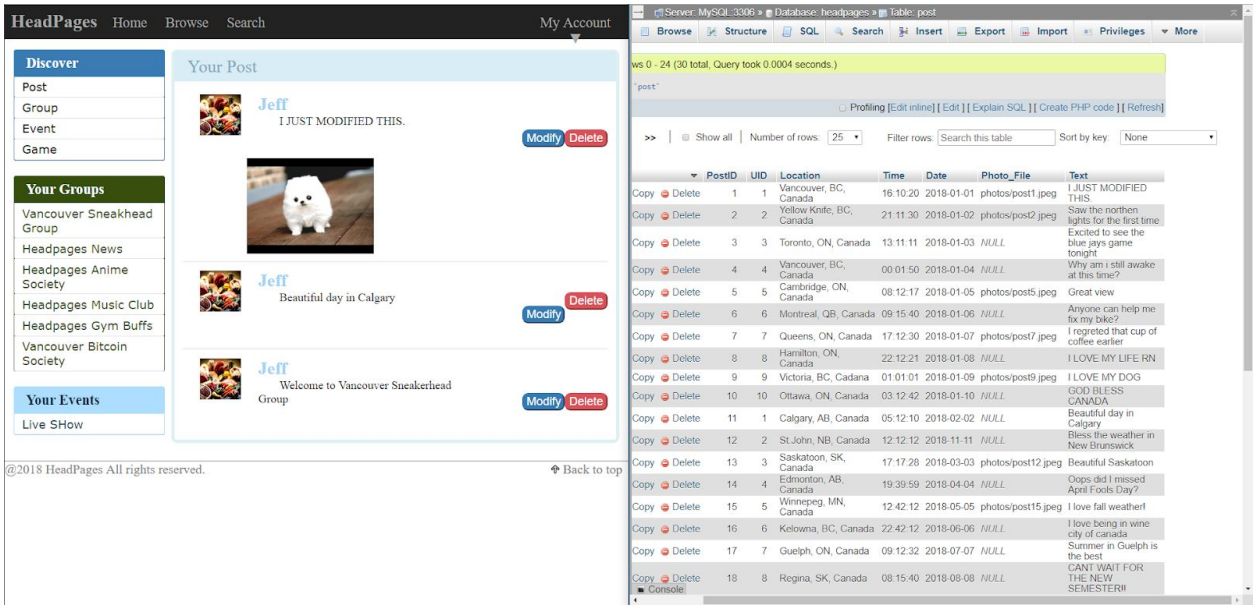


Tuple updated.

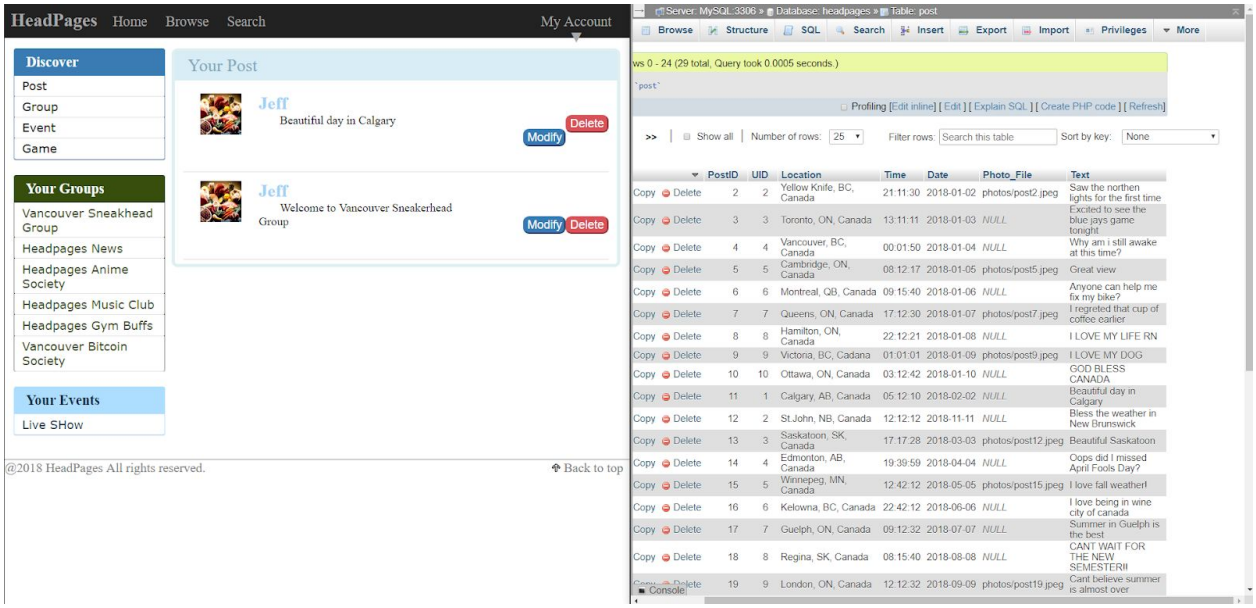


DELETE:

Before: (same image as final for update)

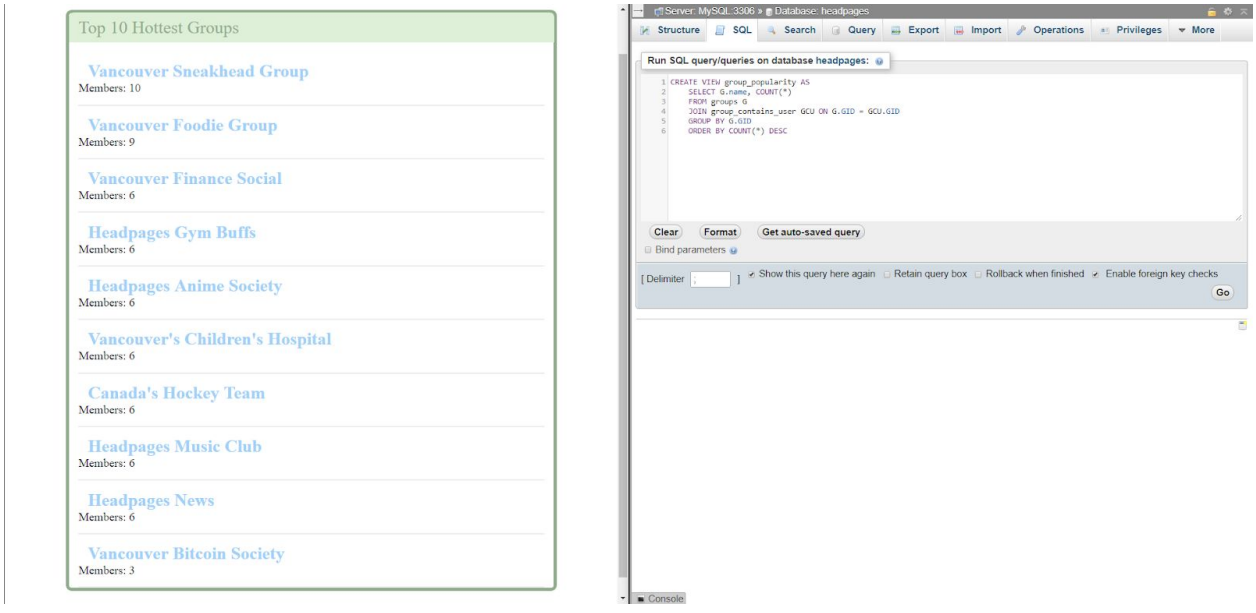


After clicking the big red delete button.

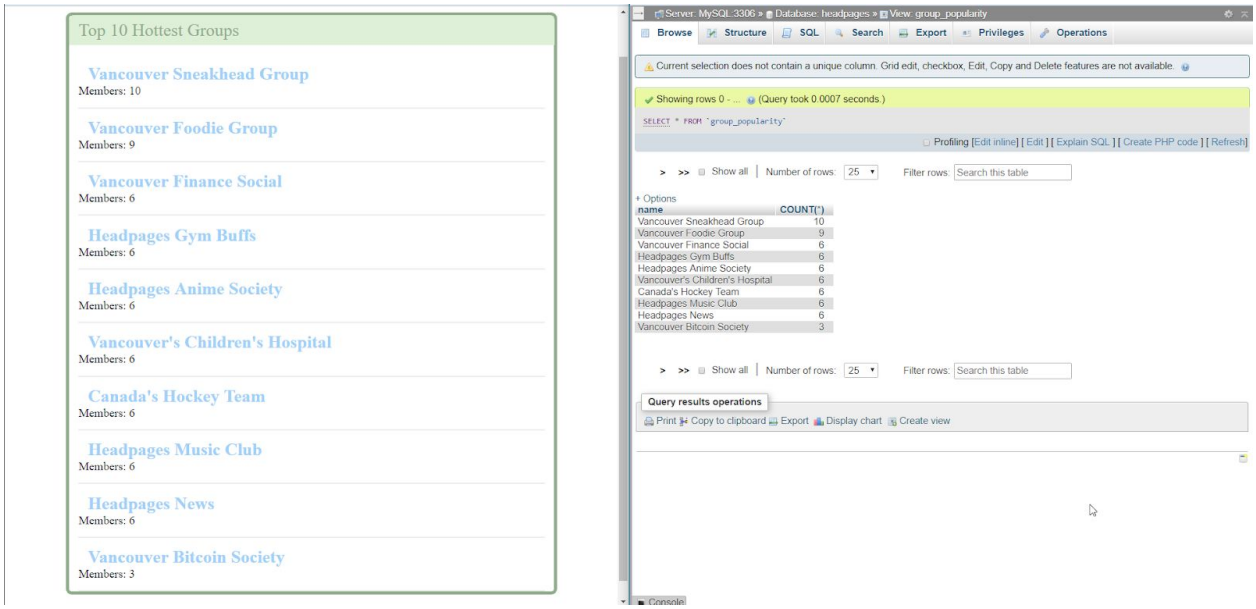


JOIN/VIEW/AGGREGATION:

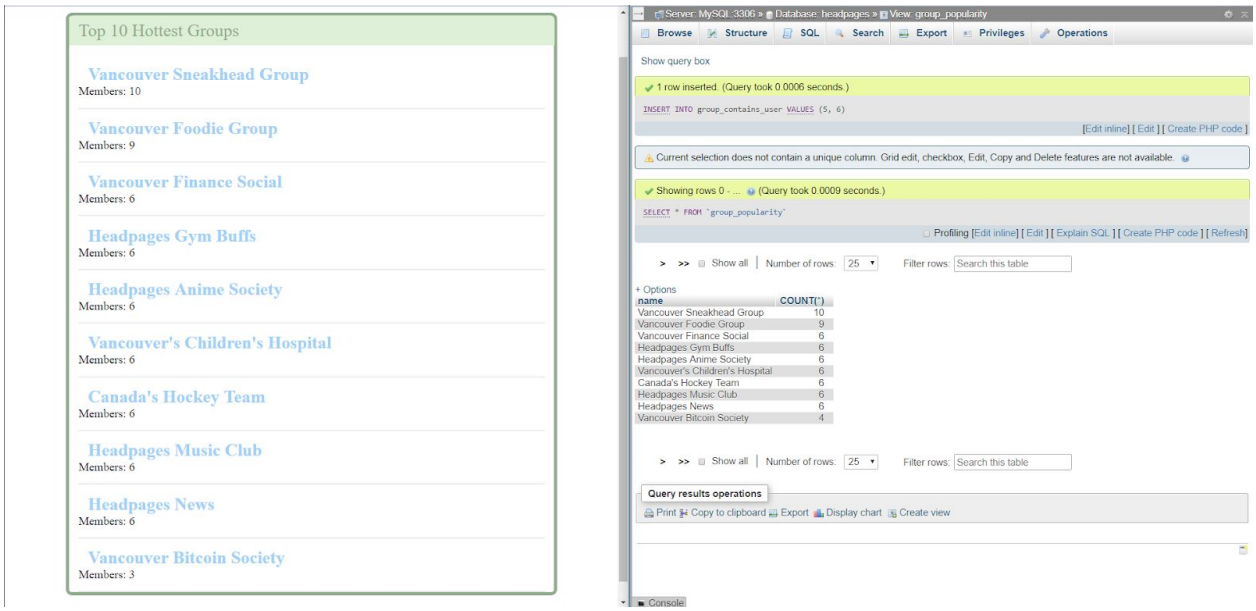
```
CREATE VIEW group_popularity AS
    SELECT G.name, COUNT(*)
    FROM groups G
    JOIN group_contains_user GCU ON G.GID = GCU.GID
    GROUP BY G.GID
    ORDER BY COUNT(*) DESC
```



Produces:

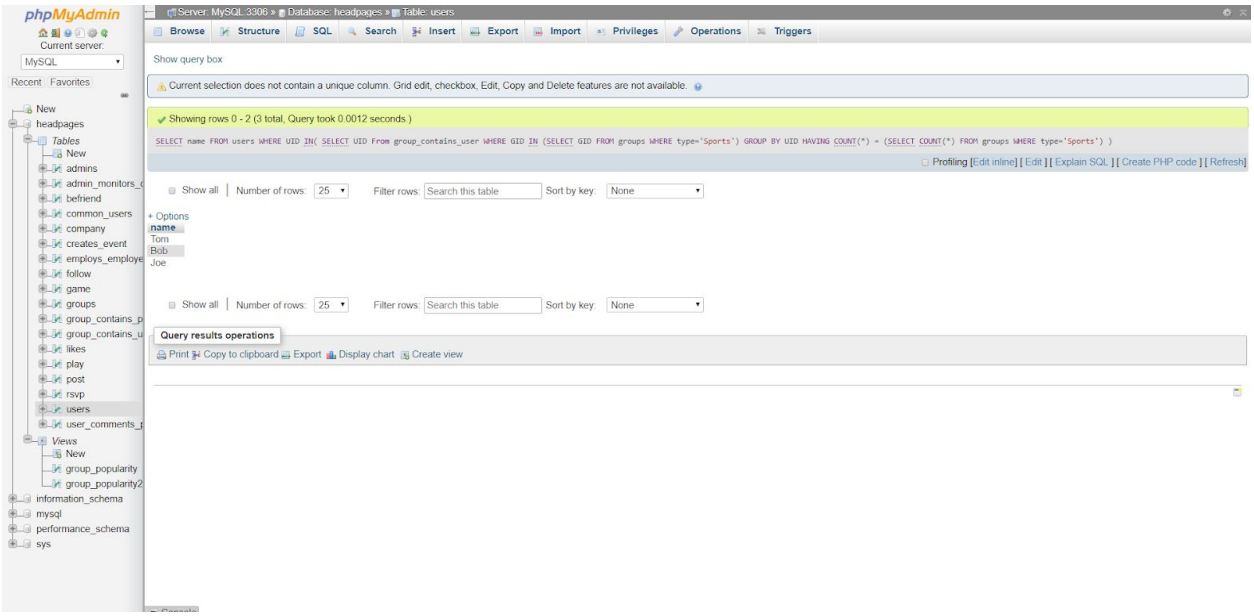


The member counts are gotten by using GROUP BY and COUNT(), and JOIN on groups and groups_contains_users. Then we created it as a VIEW because the most popular groups is information that will likely be consistently queried.



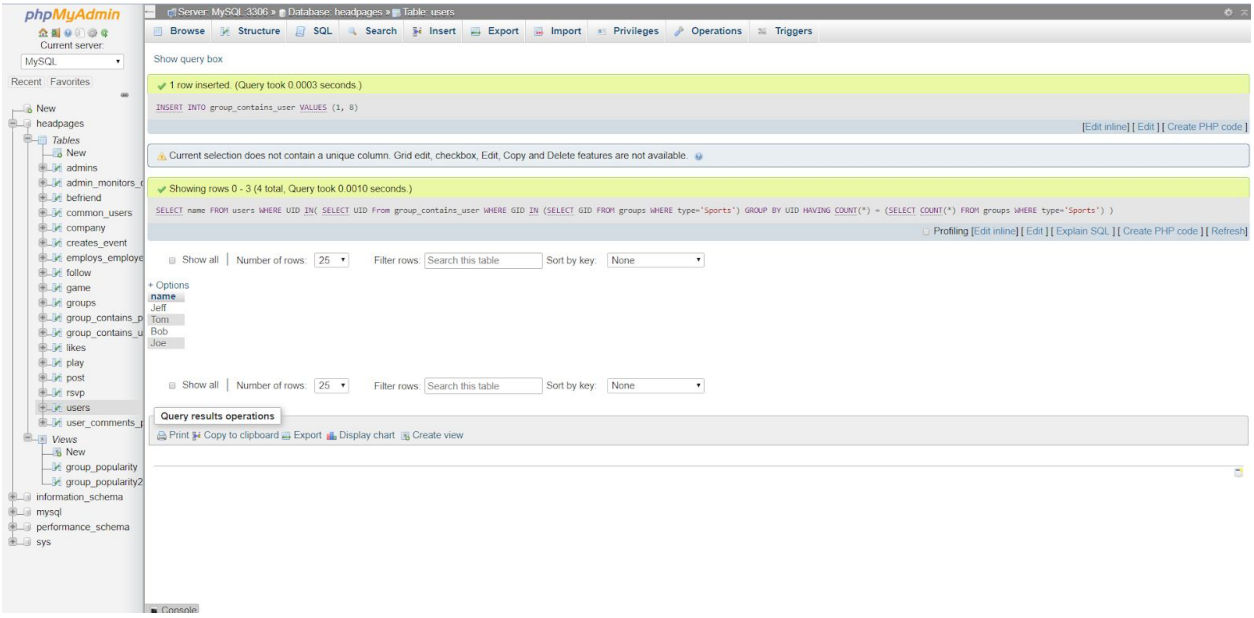
Inserted a user into the group_contains_users table, specifically a user (ID 5) to group 6 (Vancouver Bitcoin Society).
The changes can be seen.

DIVISION:
Before:4



Query to find names of users who are in ALL groups of type “Sports”.

We get Tom, Bob, Joe. (UIDs [3,4,5])



By adding Jeff (UID 1) to group “Canada’s Hockey Team” (GID 8), Jeff will be included in the query as he was already a member of the only other “Sports” group, “Headpages Gym Buffs” (GID 5)