

# Tech For Dummies - SQL Cmds

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1)

For the purposes of development, our database is hosted locally on XAMPP. Closer to the end of development, we can upload to the CS server or GCP as needed.

**NOTE:** At the top of the sql file there is a create database and use database command, so you don't have to create your own. If it's easier in your workflow, just delete those lines or comment them out, I thought I would try to be nicer.

2)

User:

```
DESC user;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	PRI	NULL	auto_increment
username	varchar(15)	NO		NULL	
password	text	NO		NULL	
join_date	date	NO		current_timestamp()	
bio	text	YES		NULL	

Your SQL query has been executed successfully.

```
SELECT COUNT(*) from user;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain](#) ]

+ Options

**COUNT(\*)**

8

Post:

```
DESC post;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

+ Options

Field	Type	Null	Key	Default	Extra
pid	int(11)	NO	PRI	NULL	auto_increment
uid	int(11)	NO	MUL	NULL	
date_posted	date	NO		current_timestamp()	
catID	int(11)	NO	MUL	NULL	
title	text	NO		NULL	
text	text	NO		NULL	
total_likes	int(11)	YES		0	

```
SELECT COUNT(*) from post;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain](#) ]

+ Options

**COUNT(\*)**

10

Comment:

```
DESC comment;
```

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+ Options

Field	Type	Null	Key	Default	Extra
cid	int(11)	NO	PRI	NULL	auto_increment
pid	int(11)	NO	MUL	NULL	
date_posted	date	NO		current_timestamp()	
text	text	NO		NULL	
total_likes	int(11)	YES		0	

```
SELECT COUNT(*) from comment;
```

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+ Options

**COUNT(\*)**

33

Category:

```
DESC category;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

+ Options

Field	Type	Null	Key	Default	Extra
catID	int(11)	NO	PRI	NULL	auto_increment
cname	varchar(20)	NO		NULL	

```
SELECT COUNT(*) from category;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain](#) ]

+ Options

**COUNT(\*)**

3

UserComments:

```
DESC usercomments;
```

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#) ]

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
cid	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from usercomments;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ]

+ Options

**COUNT(\*)**

33

## CatLikes:

```
DESC catlikes;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
catID	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from catlikes;
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain SQL \]](#)

+ Options

**COUNT(\*)**

8

## UserLikes:

```
DESC userlikes;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
pid	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from userlikes;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ]

+ Options

**COUNT(\*)**

18

CommentLikes:

```
DESC commentlikes;
```

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+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
cid	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from commentlikes;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ] [

+ Options

**COUNT(\*)**

24

Bookmarks:

```
DESC bookmarks;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
pid	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from bookmarks;
```

☐ Profiling [\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Explain \]](#)

+ Options

**COUNT(\*)**

17

FollowedUsers:

```
DESC followedusers;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

+ Options

Field	Type	Null	Key	Default	Extra
uid	int(11)	NO	MUL	NULL	
fuid	int(11)	NO	MUL	NULL	

```
SELECT COUNT(*) from followedusers;
```

☐ Profiling [ [Edit inline](#) ] [ [Edit](#) ] [ [Explain SQL](#) ]

+ Options

COUNT(\*)

10

### 3)

Sample Data:

```
INSERT INTO User (username, password, bio) VALUES ('crazykatz', 'aaa', 'Hey! I have a bio');
INSERT INTO User (username, password, bio) VALUES ('pugluver', 'aaa', 'I made this account to post literally once');
INSERT INTO User (username, password, bio) VALUES ('trendsetter', 'aaa', 'uuhhhhh, look at the name :)');
INSERT INTO User (username, password, bio) VALUES ('tech_master', 'aaa', 'I really love to help people with their tech problems!');
INSERT INTO User (username, password, bio) VALUES ('computer_wiz', 'aaa', 'I accidentally know a thing or two about computers.');
```

```
INSERT INTO User (username, password, bio) VALUES ('techsmart', 'aaa', 'This is something of a bio');
INSERT INTO User (username, password, bio) VALUES ('fashionista', 'aaa', 'I literally only know clothes');
INSERT INTO User (username, password, bio) VALUES ('fabulouslyme', 'aaa', 'heyeyyyyy');
```

```
INSERT INTO Category(cname) values('Hardware');
INSERT INTO Category(cname) values('Performance');
INSERT INTO Category(cname) values('Software');
```

```
INSERT INTO followedusers values(1, 5);
INSERT INTO followedusers values(2, 5);
INSERT INTO followedusers values(5, 2);
```



```
INSERT INTO followedusers values(5, 4);
INSERT INTO followedusers values(4, 2);
INSERT INTO Post(uid, catID, title, text) VALUES (7, 2, "How can you
improve your computer's performance?", 'My computer is running out of ram
and I can not figure it');
INSERT INTO Post(uid, catID, title, text) VALUES (1, 3, 'What is the best
way to protect your computer from viruses?', 'I am scared that I am going
to get hacked and I want to protect my computer');
INSERT INTO Post(uid, catID, title, text) VALUES (2, 3, 'What are some
good free antivirus programs?', 'I need to get an antivirus, but I am not
making a lot of money right now. Are there any good ones you can
recommend?');
INSERT INTO Post(uid, catID, title, text) VALUES (1, 1, 'What are some
good tips for backing up your data?', 'I have a lot of photos and I want
to make sure that they are backed up in case my computer has any issues');
INSERT INTO Post(uid, catID, title, text) VALUES (3, 1, 'How can you
troubleshoot a computer problem?', 'My computer keeps blue screening and I
can not figure out why');
INSERT INTO Post(uid, catID, title, text) VALUES (4, 1, 'What are the best
CPUs for gaming?', 'Im building a gaming computer pretty soon, and
wondered what the best performance CPUs were available');
/*Comments and Likes for Post 1*/
INSERT INTO Comment(pid, text) VALUES(1, 'Have you tried downloading more
RAM?');
INSERT INTO Comment(pid, text) VALUES(1, 'No, where do you do that?');
INSERT INTO Comment(pid, text) VALUES(1, 'downloadmoreram.com');
INSERT INTO Comment(pid, text) VALUES(1, 'Thanks, now my computer just
doesnt work...');
INSERT INTO UserComments VALUES(7, 1);
INSERT INTO UserComments VALUES(2, 2);
INSERT INTO UserComments VALUES(7, 3);
INSERT INTO UserComments VALUES(2, 4);
INSERT INTO UserLikes VALUES(4, 1);
INSERT INTO UserLikes VALUES(2, 1);
INSERT INTO CommentLikes VALUES (7, 2);
INSERT INTO CommentLikes VALUES (2, 1);
/*Comments and Likes for Post 2*/
INSERT INTO Comment(pid, text) VALUES(2, 'Use a reliable antivirus program
and keep it up to date.');
```

```
INSERT INTO UserComments VALUES(8, 5);
```

```
INSERT INTO Comment(pid, text) VALUES(2, 'Avoid clicking on links in email
messages or opening attachments from people you do not know.');
```

```
INSERT INTO UserComments VALUES(2, 6);
INSERT INTO Comment(pid, text) VALUES(2, 'Be careful what you download
from the Internet. Make sure it comes from a reputable source.');
```

```
INSERT INTO UserComments VALUES(5, 7);
INSERT INTO Comment(pid, text) VALUES(2, 'Use a firewall to help block
unauthorized access to your computer.');
```

```
INSERT INTO UserComments VALUES(3, 8);
INSERT INTO UserLikes VALUES(2, 2);
INSERT INTO CommentLikes VALUES(6, 5);
INSERT INTO CommentLikes VALUES(1, 5);
INSERT INTO CommentLikes VALUES(1, 6);
/*Comments and Likes for Post 3*/
INSERT INTO Comment(pid, text) VALUES(3, "I love Malwarebytes! It's free
version is still really good!");
INSERT INTO UserComments VALUES(5, 9);
INSERT INTO Comment(pid, text) VALUES(3, "I like Avast because it's free
and it's never given me any problems.");
INSERT INTO UserComments VALUES(7, 10);
INSERT INTO Comment(pid, text) VALUES(3, "I don't really trust free
antivirus programs, so I always use a paid one.");
INSERT INTO UserComments VALUES(4, 11);
INSERT INTO Comment(pid, text) VALUES(3, "I don't really know much about
antivirus programs, so I can't really comment on this.");
INSERT INTO UserComments VALUES(8, 12);
INSERT INTO UserLikes VALUES(8, 3);
INSERT INTO UserLikes VALUES(5, 3);
INSERT INTO UserLikes VALUES(4, 3);
INSERT INTO CommentLikes VALUES(5, 10);
INSERT INTO CommentLikes VALUES(2, 10);
INSERT INTO CommentLikes VALUES(4, 12);
/*Comments and Likes for Post 4*/
INSERT INTO Comment(pid, text) VALUES(4, "Copy + Paste");
INSERT INTO UserComments VALUES(4, 13);
INSERT INTO Comment(pid, text) VALUES(4, "Store your backups in different
locations to reduce the risk of losing everything if one location is
damaged or destroyed.");
INSERT INTO UserComments VALUES(5, 14);
```

```
INSERT INTO Comment(pid, text) VALUES(4, "Always make sure to have at
least two copies of your data in case one gets lost or corrupted.");
INSERT INTO UserComments VALUES(5, 15);
INSERT INTO Comment(pid, text) VALUES(4, "Also, there are some good apps
for automatically backing up your data!");
INSERT INTO UserComments VALUES(5, 16);
INSERT INTO Comment(pid, text) VALUES(4, "THanks computer_wiz!!");
INSERT INTO UserComments VALUES(1, 17);
INSERT INTO UserLikes VALUES(3, 4);
INSERT INTO UserLikes VALUES(7, 4);
INSERT INTO CommentLikes VALUES(1, 14);
INSERT INTO CommentLikes VALUES(1, 15);
INSERT INTO CommentLikes VALUES(1, 16);
/*Comments and Likes for Post 5*/
INSERT INTO Comment(pid, text) VALUES(5, "A troubleshooting tip is to
check for updates. Sometimes updates can fix problems with software.");
INSERT INTO UserComments VALUES(5, 18);
INSERT INTO Comment(pid, text) VALUES(5, "If all else fails, you can
always take the computer to a professional to get it fixed.");
INSERT INTO UserComments VALUES(6, 19);
INSERT INTO Comment(pid, text) VALUES(5, "Just restart your pc dude");
INSERT INTO UserComments VALUES(4, 20);
INSERT INTO UserLikes VALUES(1, 5);
INSERT INTO UserLikes VALUES(4, 5);
INSERT INTO CommentLikes VALUES(3, 19);
INSERT INTO CommentLikes VALUES(4, 18);
INSERT INTO CommentLikes VALUES(1, 19);
INSERT INTO Bookmarks VALUES(5, 1);
INSERT INTO Bookmarks VALUES(6, 1);
INSERT INTO Bookmarks VALUES(3, 2);
INSERT INTO Bookmarks VALUES(2, 2);
INSERT INTO Bookmarks VALUES(6, 2);
INSERT INTO Bookmarks VALUES(8, 3);
INSERT INTO Bookmarks VALUES(4, 4);
INSERT INTO CatLikes VALUES(5, 1);
INSERT INTO CatLikes VALUES(5, 2);
INSERT INTO CatLikes VALUES(5, 3);
INSERT INTO CatLikes VALUES(1, 1);
```

## Justification:

Even though we didn't have a massive dataset, everything we generated was from the both of us. The dataset was chosen to allow for the basic feature set to be demonstrated, a proof of concept falling in line with the scope of the prototype web app.

## 4)

## Non-Advanced:

NOTE: all ? indicates varying items

### Login/Signup:

When seeing if user logging in/ signing up exists:

```
SELECT * FROM User WHERE email = ?;
```

When creating user:

```
INSERT INTO User (username, password) VALUES (?, ?);
```

### Forum Page:

Main page with every post:

```
SELECT username, uid, date_posted, title, total_likes, pid FROM Post NATURAL JOIN User;
```

New Post;

```
INSERT INTO Post(uid, catID, title, text) VALUES (?, ?, ?, ?);
```

### Post Detail Page:

When generating post:

```
SELECT username, uid, date_posted, title, text, total_likes FROM Post NATURAL JOIN User  
WHERE pid = ?;
```

For the comments of the post:

```
SELECT username, uid, date_posted, text, total_likes, cid FROM Comment NATURAL JOIN  
UserComments NATURAL JOIN User WHERE pid = ?;
```

When Liking a post:

```
INSERT INTO UserLikes VALUES(?, ?);
```

When liking a comment:

```
INSERT INTO CommentLikes VALUES(?, ?);
```

When deleting your own Post:

```
DELETE FROM Post WHERE pid = ?;
```

## Profile Page:

When generating profile portion:

```
SELECT username, join_date, bio FROM User WHERE uid = ?;
```

When generating my posts:

```
SELECT username, uid, date_posted, title, total_likes, pid FROM Post NATURAL JOIN User  
WHERE uid = ?;
```

When generating saved posts:

```
SELECT username, uid, date_posted, title, total_likes, pid FROM User NATURAL JOIN  
Bookmarks NATURAL JOIN Post WHERE uid = ?;
```

When following another user:

```
INSERT INTO FollowedUsers VALUES(?, ?);
```

When liking a category:

```
INSERT INTO CatLikes VALUES (?, ?);
```

When updating bio:

```
UPDATE User SET bio = ? WHERE uid = ?;
```

## Advanced:

### Trigger:

```
DELIMITER $$  
  
CREATE TRIGGER userliked AFTER INSERT ON UserLikes  
FOR EACH ROW  
BEGIN  
    UPDATE post AS p  
    SET p.total_likes = p.total_likes + 1  
    WHERE p.pid = NEW.pid;  
END$$  
  
DELIMITER ;  
  
DELIMITER $$  
  
CREATE TRIGGER userlikedcom AFTER INSERT ON commentlikes  
FOR EACH ROW  
BEGIN  
    UPDATE comment AS c  
    SET c.total_likes = c.total_likes + 1  
    WHERE c.cid = NEW.cid;  
END$$  
  
DELIMITER ;
```

```

DELIMITER $$
CREATE TRIGGER userdislikedcom
AFTER DELETE
ON commentlikes FOR EACH ROW
BEGIN
    CALL decrementLike (OLD.cid);
END$$
DELIMITER ;

```

```

DELIMITER $$
CREATE TRIGGER userdisliked
AFTER DELETE
ON userlikes FOR EACH ROW
BEGIN
    CALL decrementLike (OLD.pid);
END$$
DELIMITER ;

```

## Procedure:

```

DELIMITER $$
CREATE PROCEDURE decrementComLike(IN id INT)
BEGIN
    UPDATE comment AS c
    SET c.total_likes = c.total_likes - 1
    WHERE c.cid = id AND c.total_likes > 0;
END$$
DELIMITER ;

```

```

DELIMITER $$
CREATE PROCEDURE decrementLike(IN id INT)
BEGIN
    UPDATE post AS p
    SET p.total_likes = p.total_likes - 1
    WHERE p.cid = id AND p.total_likes > 0;
END$$
DELIMITER ;

```