

Challenge 13: FriendBook

Friday, April 7, 2017 2:34 PM

Challenge: FriendBook

We've created a database for a friend networking site, with a table storing data on each person, a table on each person's hobbies, and a table of friend connections between the people.

```
CREATE TABLE persons (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  fullname TEXT,  
  age INTEGER);  
  
INSERT INTO persons (fullname, age) VALUES ("Bobby  
McBobbyFace", "12");  
INSERT INTO persons (fullname, age) VALUES ("Lucy BoBucie",  
"25");  
INSERT INTO persons (fullname, age) VALUES ("Banana FoFanna",  
"14");  
INSERT INTO persons (fullname, age) VALUES ("Shish Kabob",  
"20");  
INSERT INTO persons (fullname, age) VALUES ("Fluffy Sparkles",  
"8");  
  
CREATE table hobbies (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  person_id INTEGER,  
  name TEXT);  
  
INSERT INTO hobbies (person_id, name) VALUES (1, "drawing");  
INSERT INTO hobbies (person_id, name) VALUES (1, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (2, "dancing");  
INSERT INTO hobbies (person_id, name) VALUES (2, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (3, "skating");  
INSERT INTO hobbies (person_id, name) VALUES (3, "rowing");  
INSERT INTO hobbies (person_id, name) VALUES (3, "drawing");  
INSERT INTO hobbies (person_id, name) VALUES (4, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (4, "dilly-  
dallying");  
INSERT INTO hobbies (person_id, name) VALUES (4, "meowing");  
  
CREATE table friends (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  person1_id INTEGER,  
  person2_id INTEGER);  
  
INSERT INTO friends (person1_id, person2_id)  
  VALUES (1, 4);  
INSERT INTO friends (person1_id, person2_id)  
  VALUES (2, 3);
```

DATABASE SCHEMA

persons
5 rows
id (PK)INTEGER
fullnameTEXT
ageINTEGER
hobbies
10 rows
id (PK)INTEGER
person_idINTEGER
nameTEXT
friends
2 rows
id (PK)INTEGER
person1_idINTEGER
person2_idINTEGER

Step 1

In this first step, use a JOIN to display a table showing people's names with their hobbies.

```
SELECT persons.fullname, hobbies.name  
FROM persons  
JOIN hobbies  
ON persons.id = person_id;
```

```
CREATE TABLE persons (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  fullname TEXT,  
  age INTEGER);  
  
INSERT INTO persons (fullname, age) VALUES ("Bobby  
McBobbyFace", "12");  
INSERT INTO persons (fullname, age) VALUES ("Lucy BoBucie",  
"25");  
INSERT INTO persons (fullname, age) VALUES ("Banana  
FoFanna", "14");  
INSERT INTO persons (fullname, age) VALUES ("Shish Kabob",  
"20");  
INSERT INTO persons (fullname, age) VALUES ("Fluffy Sparkles",  
"8");  
  
CREATE table hobbies (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  person_id INTEGER,  
  name TEXT);  
  
INSERT INTO hobbies (person_id, name) VALUES (1, "drawing");  
INSERT INTO hobbies (person_id, name) VALUES (1, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (2, "dancing");  
INSERT INTO hobbies (person_id, name) VALUES (2, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (3, "skating");  
INSERT INTO hobbies (person_id, name) VALUES (3, "rowing");  
INSERT INTO hobbies (person_id, name) VALUES (3, "drawing");  
INSERT INTO hobbies (person_id, name) VALUES (4, "coding");  
INSERT INTO hobbies (person_id, name) VALUES (4, "dilly-  
dallying");  
INSERT INTO hobbies (person_id, name) VALUES (4, "meowing");  
  
CREATE table friends (  
  id INTEGER PRIMARY KEY AUTOINCREMENT,  
  person1_id INTEGER,  
  person2_id INTEGER);  
  
INSERT INTO friends (person1_id, person2_id)  
  VALUES (1, 4);  
INSERT INTO friends (person1_id, person2_id)  
  VALUES (2, 3);
```

Database Schema

persons
5 rows
id (PK) INTEGER
fullname TEXT
age INTEGER
hobbies
10 rows
id (PK) INTEGER
person_id INTEGER
name TEXT
friends
2 rows
id (PK) INTEGER
person1_id INTEGER
person2_id INTEGER


Results



fullname	name
Bobby McBobbyFace	drawing
Bobby McBobbyFace	coding
Lucy BoBucie	dancing
Lucy BoBucie	coding
Banana FoFanna	skating
Banana FoFanna	rowing
Banana FoFanna	drawing
Shish Kabob	coding
Shish Kabob	dilly-dallying
Shish Kabob	meowing

		<pre>SELECT persons.fullname, hobbies.name FROM persons JOIN hobbies ON persons.id = person_id; SELECT a.fullname AS "Person A", b.fullname AS "Their Friend" FROM friends JOIN persons a ON friends.person1_id = a.id JOIN persons b ON friends.person2_id; /* SELECT persons.fullname, friends.fullname FROM persons JOIN friends ON person1_id = person2_id; */</pre>	<table><tr><th>Person A</th><th>Their Friend</th></tr><tr><td>Bobby McBobbyFace</td><td>Bobby McBobbyFace</td></tr><tr><td>Bobby McBobbyFace</td><td>Lucy BoBucie</td></tr><tr><td>Bobby McBobbyFace</td><td>Banana FoFanna</td></tr><tr><td>Bobby McBobbyFace</td><td>Shish Kabob</td></tr><tr><td>Bobby McBobbyFace</td><td>Fluffy Sparkles</td></tr><tr><td>Lucy BoBucie</td><td>Bobby McBobbyFace</td></tr><tr><td>Lucy BoBucie</td><td>Lucy BoBucie</td></tr><tr><td>Lucy BoBucie</td><td>Banana FoFanna</td></tr><tr><td>Lucy BoBucie</td><td>Shish Kabob</td></tr><tr><td>Lucy BoBucie</td><td>Fluffy Sparkles</td></tr></table> <p>From <https://www.kasandbox.org/computer-programming/exec/sql?lang=en&deferjsk=0&amp;v=170422-0826-f64d2842095d.400740832338989646></p>	Person A	Their Friend	Bobby McBobbyFace	Bobby McBobbyFace	Bobby McBobbyFace	Lucy BoBucie	Bobby McBobbyFace	Banana FoFanna	Bobby McBobbyFace	Shish Kabob	Bobby McBobbyFace	Fluffy Sparkles	Lucy BoBucie	Bobby McBobbyFace	Lucy BoBucie	Lucy BoBucie	Lucy BoBucie	Banana FoFanna	Lucy BoBucie	Shish Kabob	Lucy BoBucie	Fluffy Sparkles
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Step 2																									
Now, use another SELECT with a JOIN to show the names of each pair of friends, based on the data in the friends table.																									

1 CREATE TABLE persons (
2 id INTEGER PRIMARY KEY AUTOINCREMENT,
3 fullname TEXT,
4 age INTEGER);
5
6 INSERT INTO persons (fullname, age) VALUES
7 ("Bobby McBobbyFace", "12");
8 INSERT INTO persons (fullname, age) VALUES
9 ("Lucy BoBucie", "25");
10 INSERT INTO persons (fullname, age) VALUES
11 ("Banana FoFanna", "14");
12 INSERT INTO persons (fullname, age) VALUES
13 ("Shish Kabob", "20");
14 INSERT INTO persons (fullname, age) VALUES
15 ("Fluffy Sparkles", "8");
16
17 CREATE table hobb
18 id INTEGER PR
19 person_id INT
20 name TEXT);
21
22 INSERT INTO hobb

Making progress!
Onward!



Undo Start over  Step 1/2  Next Step!

DATABASE SCHEMA

persons5 rows

id (PK)	INTEGER
fullname	TEXT
age	INTEGER

hobbies10 rows

id (PK)	INTEGER
person_id	INTEGER
name	TEXT

friends2 rows

id (PK)	INTEGER
person1_id	INTEGER