By the end of the unit, based on Khan Academy, students will be able to understand and complete this code:

```
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);
SELECT persons.fullname, hobbies.name
  FROM persons
  JOIN hobbies
  ON persons.id = hobbies.person id
SELECT perA.fullname, perB.fullname
  FROM persons perA
  JOIN friends
  ON perA.id = friends.person1 id
  JOIN persons perB
  ON friends.person2_id = perB.id
```

From: <u>Computing/ Computer programming/ Intro to SQL: Querying and managing data/ Relational queries in SQL/ Challenge: Friendbook</u>

On Khan Academy's platform, it would look like:

DATABASE SCHEMA

| persons | 5 rows | hobbies | 10 rows |
|----------|---------|-----------|---------|
| id (PK) | INTEGER | id (PK) | INTEGER |
| fullname | TEXT | person_id | INTEGER |
| age | INTEGER | name | TEXT |

| friends 2 rows |
|-----------------------|
| id (PK) INTEGER |
| person1_id INTEGER |
| person2_id INTEGER |

| id | fullname | age |
|----|-------------------|-----|
| 1 | Bobby McBobbyFace | 12 |
| 2 | Lucy BoBucie | 25 |
| 3 | Banana FoFanna | 14 |
| 4 | Shish Kabob | 20 |
| 5 | Fluffy Sparkles | 8 |

persons:

| id | person_id | name |
|----|-----------|----------------|
| 1 | 1 | drawing |
| 2 | 1 | coding |
| 3 | 2 | dancing |
| 4 | 2 | coding |
| 5 | 3 | skating |
| 6 | 3 | rowing |
| 7 | 3 | drawing |
| 8 | 4 | coding |
| 9 | 4 | dilly-dallying |
| 10 | 4 | meowing |

hobbies:

| id | person1_id | person2_id | |
|----|------------|------------|--|
| 1 | 1 | 4 | |
| 2 | 2 | 3 | |

Friends:

QUERY 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 |

| fullname | fullname |
|-------------------|----------------|
| Bobby McBobbyFace | Shish Kabob |
| Lucy BoBucie | Banana FoFanna |