Working with SQLite

normally, we have a MySQL database backend
it requires a server running MySQL
we manually query the database (e.g., using the MySQL client)
or we query it through some frontend (e.g., web-based PHP code)

for portability (and to deal with the current remote restrictions), we can use SQLite
think of a database in a file
there is no server backend; however, you can think of SQLite as providing the same functionality

so we "load" a database from a file and query it as normal (almost)

first, install SQLite v3:
```
sudo apt install sqlite3
```

try it on a preconfigured database (with a users table):
```
sqlite3 test.db
```

then issue the following straightforward SQL query:
```
select * from users;
```

as an aside, to list the tables in the database:
```
.tables
```

for a list of commands:
```
.help
```

we can do this from PHP too!
first, install the SQLite 3 library for PHP:
```
sudo apt install php-sqlite3
```

loading a database is easy:
```
$db = new SQLite3("test.db");
```

issuing a SQL query is also easy:
```
$q = $db->query("SELECT * FROM `users`");
```

we can then iterate through the returned rows:
```
while ($r = $q->fetchArray())
      …
```

of course, we can similarly create tables (check out the code)