Matt Davenport
John Keller
Sam Mauck
Luke McDonald

bChat - Milestone 5

Three user acceptance tests are detailed below. These test plans provide the instructions for testing the register/login functionality, the chat creation functionality, and the message sending/receiving functionality.

<table>
<tr><td colspan="4"><b>System Test Case:</b>
<b>bChat</b>

<b>Test:</b> Login functionality

<b>Purpose:</b> Verify that a user is able to register a new account and login to the bChat application</td></tr>
<tr><th>Step</th><th>Test Step</th><th>Expected Results</th><th>Actual Results</th></tr>
<tr><td>1</td><td>Navigate to the bChat homepage</td><td>The user should be be redirected to the main page which displays the text “bChat” in the center of the screen</td><td></td></tr>
<tr><td>2</td><td>Click the register button at the top right corner of the screen</td><td>The user should be redirected to the registration form</td><td></td></tr>
<tr><td>3</td><td>Fill out the registration form and click the register button</td><td>The user should be redirected to the main chats view</td><td></td></tr>
<tr><td>4</td><td>Click the logout button</td><td>You user should be redirected the homepage</td><td></td></tr>
<tr><td>5</td><td>Click the login button at the top right corner of the screen</td><td>The user should be redirected to the login view</td><td></td></tr>
</table>

6	Fill out the login form and click the login button	The user should be redirected to the main chats view	

System Test Case:
bChat

Test: Create a Chat

Purpose: Verify that a user is able to create a chat request with another user and that the other user is able to accept or decline the chat request.

Step	**Test Step**	**Expected Results**	**Actual Results**
1	After logging into the application, click the “new” button at the top right of the chats/messages component (the main box on the page). (Note: the user you are creating a chat with must be logged in as well.)	The current chats a user has (at the top of the chats/messages component) will be replaced by two input boxes, one for the user you would like to chat with, and one for the date that a chat will be deleted at.	
2	In the first box type the username for a user that **that has already registered** (except yourself), and in the second box type a valid date (anytime after the current date) in the format “mm/dd/yyyy”	The boxes should fill with the input text you have written in them.	
3	Click the “Request Chat” button, and have the other user (who should be logged in already)	A chat request should pop up in the other users screen. Once they accept this chat request a chat	

	accept the chat request that pops up.	will appear at the top of the chats/messages component in both of your screens.	

System Test Case:
bChat

Test: Sending and receiving messages

Purpose: Verify that a user is able to send and receives messages in a chat with another user

Step	**Test Step**	**Expected Results**	**Actual Results**
1	After logging into the application, select a chat from the chats at the top of the chats/messages component.	Once a chat is selected, the chats/messages component should display all of the messages from that chat.	
2	Type in the text box to the left of the “send” button, then click the send button.	After a second or two a message should appear in the messages section of the chats/messages component.	
3	Have the user you are chatting with login to the application, and select the chat that you just sent a message in.	The message you just sent should appear in the messages section of the chats/messages component on the other user’s instance of the application.	

Automated Test Cases

The tool used to perform automated testing is PHPUnit, and the tests are written with the Laravel framework. The syntax for writing these tests are described here.

For our project, rather than writing tests for the frontend (which would have been quite cumbersome), we wrote tests for our API endpoints that simulate the users doing actions on the front end.

In order to run these tests, you must first migrate and seed the database, which provides the filler data that the unit tests use. Then run the unit tests from the root of server directory using the following commands:

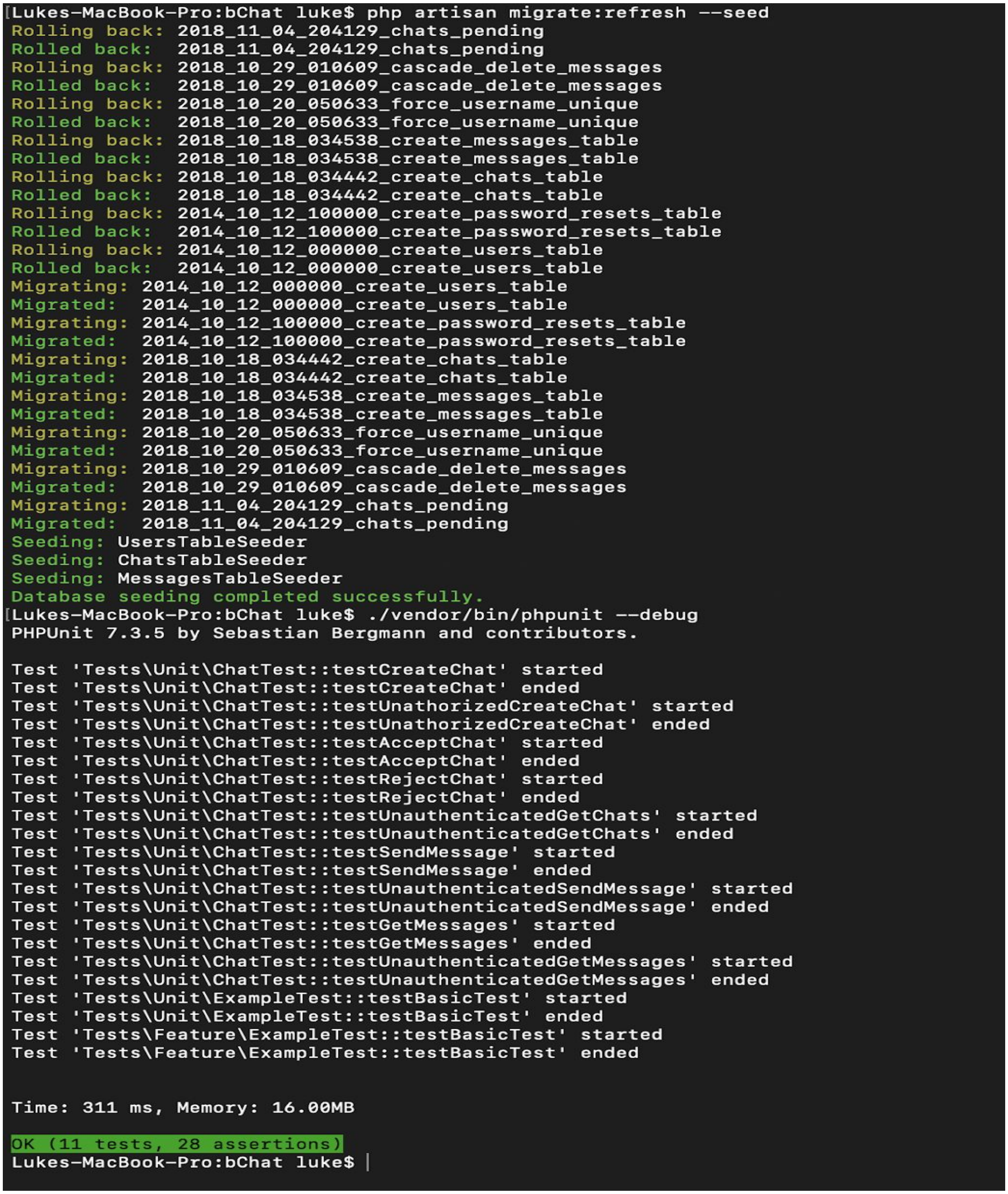
```
php artisan migrate:refresh --seed
./vendor/bin/phpunit
```

These unit tests will test the following features of our application:

1. Sending a chat request
2. Sending a chat request while not logged in (the application should deny this behavior)
3. Accepting an incoming chat request
4. Rejecting an incoming chat request
5. Getting a list of chats while not logged in (the application should deny this behavior)
6. Sending a message
7. Sending a message while not logged in (the application should deny this behavior)
8. Getting a list of messages for a particular chat
9. Getting a list of messages for a particular chat while not logged in (the application should deny this behavior)

The source code for these tests can be found at:
https://github.com/lukemcd1994/bChat/blob/master/tests/Unit/ChatTest.php

An example output where all of these unit tests pass is shown below:



```
[Lukes-MacBook-Pro:bChat luke$ php artisan migrate:refresh --seed
Rolling back: 2018_11_04_204129_chats_pending
Rolled back:  2018_11_04_204129_chats_pending
Rolling back: 2018_10_29_010609_cascade_delete_messages
Rolled back:  2018_10_29_010609_cascade_delete_messages
Rolling back: 2018_10_20_050633_force_username_unique
Rolled back:  2018_10_20_050633_force_username_unique
Rolling back: 2018_10_18_034538_create_messages_table
Rolled back:  2018_10_18_034538_create_messages_table
Rolling back: 2018_10_18_034442_create_chats_table
Rolled back:  2018_10_18_034442_create_chats_table
Rolling back: 2014_10_12_100000_create_password_resets_table
Rolled back:  2014_10_12_100000_create_password_resets_table
Rolling back: 2014_10_12_000000_create_users_table
Rolled back:  2014_10_12_000000_create_users_table
Migrating: 2014_10_12_000000_create_users_table
Migrated:  2014_10_12_000000_create_users_table
Migrating: 2014_10_12_100000_create_password_resets_table
Migrated:  2014_10_12_100000_create_password_resets_table
Migrating: 2018_10_18_034442_create_chats_table
Migrated:  2018_10_18_034442_create_chats_table
Migrating: 2018_10_18_034538_create_messages_table
Migrated:  2018_10_18_034538_create_messages_table
Migrating: 2018_10_20_050633_force_username_unique
Migrated:  2018_10_20_050633_force_username_unique
Migrating: 2018_10_29_010609_cascade_delete_messages
Migrated:  2018_10_29_010609_cascade_delete_messages
Migrating: 2018_11_04_204129_chats_pending
Migrated:  2018_11_04_204129_chats_pending
Seeding: UsersTableSeeder
Seeding: ChatsTableSeeder
Seeding: MessagesTableSeeder
Database seeding completed successfully.
[Lukes-MacBook-Pro:bChat luke$ ./vendor/bin/phpunit --debug
PHPUnit 7.3.5 by Sebastian Bergmann and contributors.

Test 'Tests\Unit\ChatTest::testCreateChat' started
Test 'Tests\Unit\ChatTest::testCreateChat' ended
Test 'Tests\Unit\ChatTest::testUnathorizedCreateChat' started
Test 'Tests\Unit\ChatTest::testUnathorizedCreateChat' ended
Test 'Tests\Unit\ChatTest::testAcceptChat' started
Test 'Tests\Unit\ChatTest::testAcceptChat' ended
Test 'Tests\Unit\ChatTest::testRejectChat' started
Test 'Tests\Unit\ChatTest::testRejectChat' ended
Test 'Tests\Unit\ChatTest::testUnauthenticatedGetChats' started
Test 'Tests\Unit\ChatTest::testUnauthenticatedGetChats' ended
Test 'Tests\Unit\ChatTest::testSendMessage' started
Test 'Tests\Unit\ChatTest::testSendMessage' ended
Test 'Tests\Unit\ChatTest::testUnauthenticatedSendMessage' started
Test 'Tests\Unit\ChatTest::testUnauthenticatedSendMessage' ended
Test 'Tests\Unit\ChatTest::testGetMessages' started
Test 'Tests\Unit\ChatTest::testGetMessages' ended
Test 'Tests\Unit\ChatTest::testUnauthenticatedGetMessages' started
Test 'Tests\Unit\ChatTest::testUnauthenticatedGetMessages' ended
Test 'Tests\Unit\ExampleTest::testBasicTest' started
Test 'Tests\Unit\ExampleTest::testBasicTest' ended
Test 'Tests\Feature\ExampleTest::testBasicTest' started
Test 'Tests\Feature\ExampleTest::testBasicTest' ended


Time: 311 ms, Memory: 16.00MB

OK (11 tests, 28 assertions)
Lukes-MacBook-Pro:bChat luke$ |
```