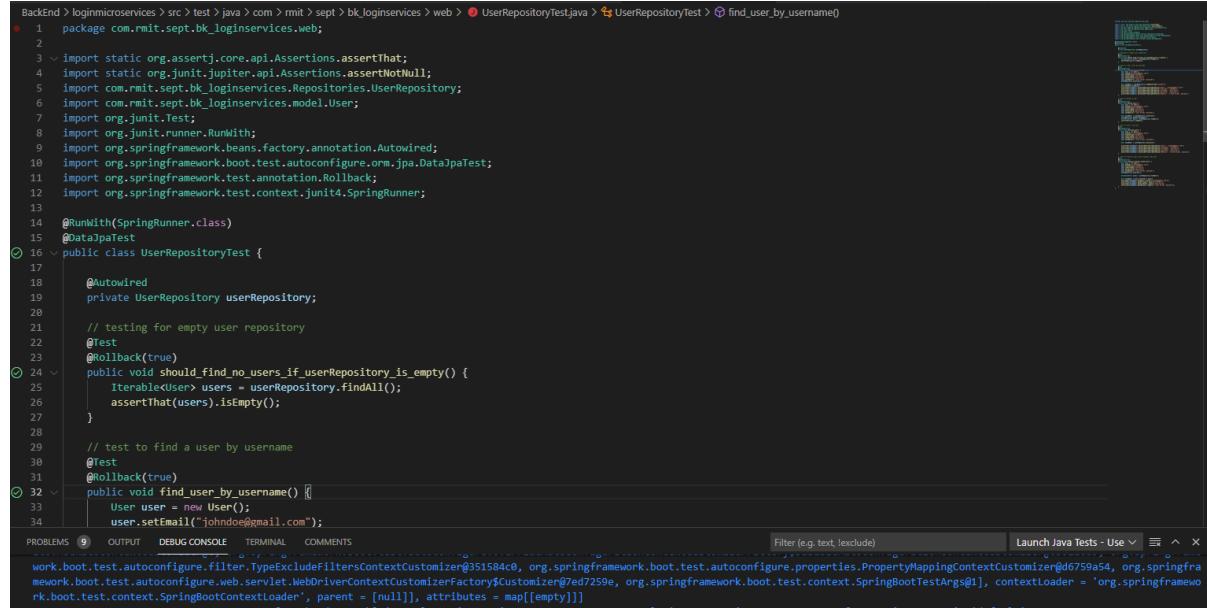


Unit Testing:

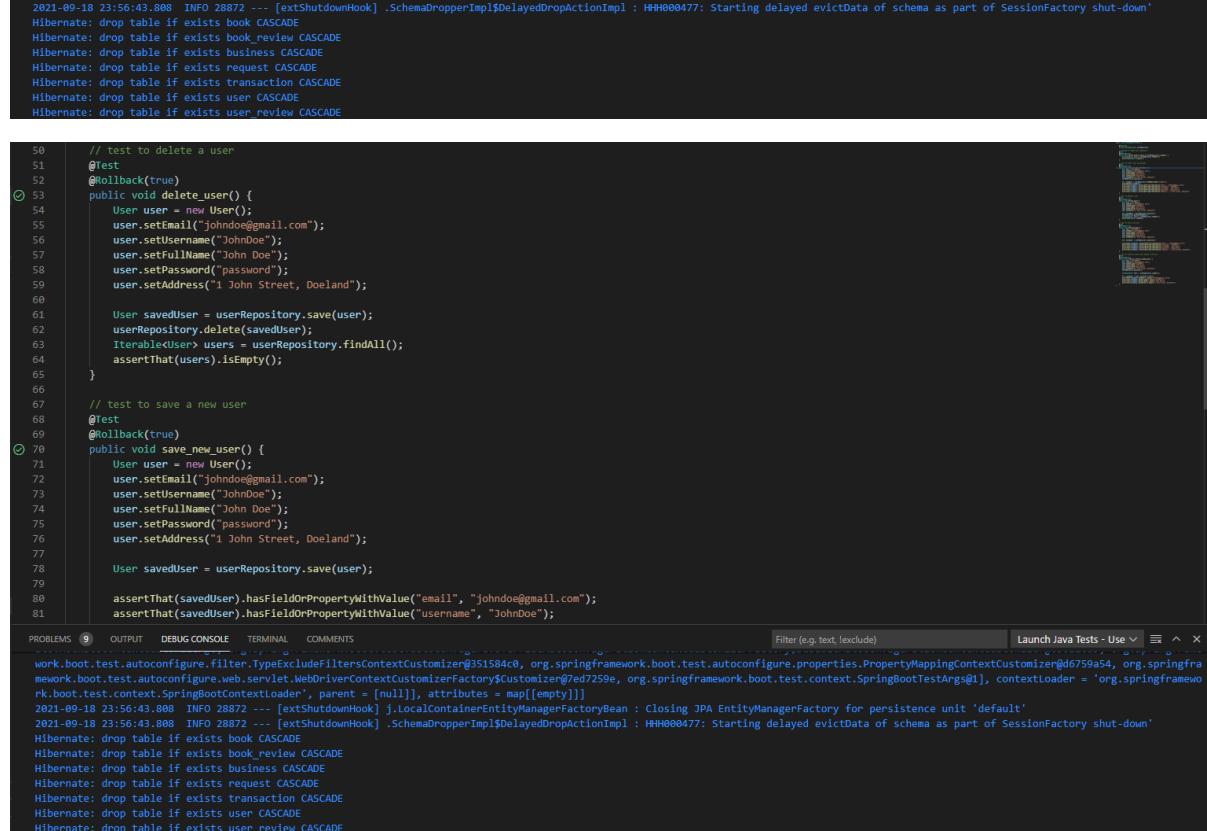
Unit Testing was added for the user repository and transaction repository.

User Repository:



```
BackEnd > loginmicroservices > src > test > java > com > rmit > sept > bk_loginservices > web > UserRepositoryTest.java > UserRepositoryTest > find_user_by_username()
1 package com.rmit.sept.bk_loginservices.web;
2
3 import static org.assertj.core.api.Assertions.assertThat;
4 import static org.junit.jupiter.api.Assertions.assertNotNull;
5 import com.rmit.sept.bk_loginservices.Repositories.UserRepository;
6 import com.rmit.sept.bk_loginservices.model.User;
7 import org.junit.Test;
8 import org.junit.runner.RunWith;
9 import org.springframework.beans.factory.annotation.Autowired;
10 import org.springframework.boot.test.autoconfigure.orm.jpa.DataJpaTest;
11 import org.springframework.test.annotation.Rollback;
12 import org.springframework.test.context.junit4.SpringRunner;
13
14 @RunWith(SpringRunner.class)
15 @DataJpaTest
16 public class UserRepositoryTest {
17
18     @Autowired
19     private UserRepository userRepository;
20
21     // testing for empty user repository
22     @Test
23     @Rollback(true)
24     public void should_find_no_users_if_userRepository_is_empty() {
25         Iterable<User> users = userRepository.findAll();
26         assertThat(users).isEmpty();
27     }
28
29     // test to find a user by username
30     @Test
31     @Rollback(true)
32     public void find_user_by_username() {
33         User user = new User();
34         user.setEmail("johndoe@gmail.com");

```



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text | exclude) Launch Java Tests - Use ▾ ▷ ▲ ▹
work.boot.test.autoconfigure.filter.TypeExcludeFiltersContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyMappingContextCustomizer@6759a54, org.springframework.boot.test.autoconfigure.web.servlet.WebDriverContextCustomizerFactoryCustomizer@ed7259e, org.springframework.boot.test.context.SpringBootTestArgs@1], contextLoader = 'org.springframework.boot.test.context.SpringBootContextLoader', parent = [null], attributes = map[[empty]])
2021-09-18 23:56:43.889 INFO 28872 --- [extShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2021-09-18 23:56:43.889 INFO 28872 --- [extShutdownHook] .SchemaDropperImpl$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as part of SessionFactory shut-down'
Hibernate: drop table if exists book CASCADE
Hibernate: drop table if exists book_review CASCADE
Hibernate: drop table if exists business CASCADE
Hibernate: drop table if exists request CASCADE
Hibernate: drop table if exists transaction CASCADE
Hibernate: drop table if exists user CASCADE
Hibernate: drop table if exists user_review CASCADE

50 // test to delete a user
51     @Test
52     @Rollback(true)
53     public void delete_user() {
54         User user = new User();
55         user.setEmail("johndoe@gmail.com");
56         user.setUsername("JohnDoe");
57         user.setFullName("John Doe");
58         user.setPassword("password");
59         user.setAddress("1 John Street, Doeland");
60
61         User savedUser = userRepository.save(user);
62         userRepository.delete(savedUser);
63         Iterable<User> users = userRepository.findAll();
64         assertThat(users).isEmpty();
65     }
66
67     // test to save a new user
68     @Test
69     @Rollback(true)
70     public void save_new_user() {
71         User user = new User();
72         user.setEmail("johndoe@gmail.com");
73         user.setUsername("JohnDoe");
74         user.setFullName("John Doe");
75         user.setPassword("password");
76         user.setAddress("1 John Street, Doeland");
77
78         User savedUser = userRepository.save(user);
79
80         assertThat(savedUser).hasFieldOrPropertyWithValue("email", "johndoe@gmail.com");
81         assertThat(savedUser).hasFieldOrPropertyWithValue("username", "JohnDoe");

```

```

87 // test to find all users after saving a new user
88 @Test
89 @Rollback(true)
90 public void find_all_returns_saved_user() {
91     User user = new User();
92     user.setEmail("johndoe@gmail.com");
93     user.setUsername("JohnDoe");
94     user.setFullName("John Doe");
95     user.setPassword("password");
96     user.setAddress("1 John Street, Doeland");
97     userRepository.save(user);
98
99     Iterable<User> users = userRepository.findAll();
100
101     User savedUser = users.iterator().next();
102     assertThat(savedUser.getEmail()).equals("johndoe@gmail.com");
103     assertThat(savedUser.getUsername()).equals("JohnDoe");
104     assertThat(savedUser.getFullName()).equals("John Doe");
105     assertThat(savedUser.getAddress()).equals("1 John Street, Doeland");
106 }
107 }
108

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text | exclude) Launch Java Tests - Use ▾ ▾ ▾

```

work.boot.test.autoconfigure.filter.TypeExcludeFiltersContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyMappingContextCustomizer@6759a54, org.springframework.boot.test.context.SpringBootTestArgs@1], contextLoader = 'org.springframework.boot.test.context.SpringBootTestLoader', parent = [null]], attributes = map[{}])
2021-09-18 23:56:43.888 INFO 28872 --- [extShutdownHook] .localContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2021-09-18 23:56:43.888 INFO 28872 --- [extShutdownHook] .SchemaDropperImpl$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as part of SessionFactory shut-down'
Hibernate: drop table if exists book CASCADE
Hibernate: drop table if exists book_review CASCADE
Hibernate: drop table if exists business CASCADE
Hibernate: drop table if exists request CASCADE
Hibernate: drop table if exists transaction CASCADE
Hibernate: drop table if exists user CASCADE
Hibernate: drop table if exists user_review CASCADE

```

Transaction Repository:

```

1 package com.rmit.sept.bk_loginservices.Repositories;
2
3 import java.util.ArrayList;
4 import java.util.Arrays;
5 import java.util.List;
6
7 import com.rmit.sept.bk_loginservices.Repositories.TransactionRepository;
8 import com.rmit.sept.bk_loginservices.model.Transaction;
9
10 import org.junit.Test;
11 import org.junit.runner.RunWith;
12 import org.springframework.beans.factory.annotation.Autowired;
13 import static org.junit.jupiter.api.Assertions.assertEquals;
14 import static org.assertj.core.api.Assertions.assertThat;
15
16 import org.springframework.boot.test.autoconfigure.orm.jpa.DataJpaTest;
17 import org.springframework.test.context.junit4.SpringRunner;
18
19 @RunWith(SpringRunner.class)
20 @DataJpaTest
21 public class TransactionRepositoryTest {
22
23     @Autowired
24     private TransactionRepository transactionRepository;
25
26     Transaction TRANSACTION_1 = new Transaction(1L, 1L, 1L, 1L, 1L, 12);
27     Transaction TRANSACTION_2 = new Transaction(2L, 1L, 1L, 1L, 1L, 12);
28     Transaction TRANSACTION_3 = new Transaction(1L, 2L, 1L, 1L, 1L, 12);
29     Transaction TRANSACTION_4 = new Transaction(1L, 2L, 1L, 1L, 1L, 12);
30
31     @Test
32     public void findNoTransactions_success() throws Exception {
33         List<Transaction> transactions = new ArrayList<Transaction>();
34         assertEquals(transactions, transactionRepository.findAll());
35     }
36

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text | exclude) Launch Java Tests - Trac ▾ ▾ ▾

```

@ContextCustomizer@3130745, org.springframework.boot.test.autoconfigure.filter.TypeExcludeFiltersContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyMappingContextCustomizer@6759a54, org.springframework.boot.test.context.SpringBootTestArgs@1], contextLoader = 'org.springframework.boot.test.context.SpringBootTestLoader', parent = [null]], attributes = map[{}])
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownHook] .localContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownHook] .SchemaDropperImpl$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as part of SessionFactory shut-down'
Hibernate: drop table if exists book CASCADE
Hibernate: drop table if exists book_review CASCADE
Hibernate: drop table if exists business CASCADE
Hibernate: drop table if exists request CASCADE
Hibernate: drop table if exists transaction CASCADE
Hibernate: drop table if exists user CASCADE
Hibernate: drop table if exists user_review CASCADE

```

```
37
38     @Test
39     public void saveTransaction_success() {
40         Transaction savedTransaction = transactionRepository.save(TRANSACTION_1);
41         assertEquals(savedTransaction.hasFieldOnPropertyWithValue("buyerID", 1));
42         assertEquals(savedTransaction.hasFieldOnPropertyWithValue("sellerID", 1));
43         assertEquals(savedTransaction.hasFieldOnPropertyWithValue("bookID", 1));
44         assertEquals(savedTransaction.hasFieldOnPropertyWithValue("status", 1));
45         assertEquals(savedTransaction.hasFieldOnPropertyWithValue("price", 12.0));
46     }
47
48     @Test
49     public void getAllTransactions_success() {
50         List<Transaction> transactions = new ArrayList<Transaction>(Arrays.asList(TRANSACTION_1, TRANSACTION_2, TRANSACTION_3, TRANSACTION_4));
51         transactionRepository.save(TRANSACTION_1);
52         transactionRepository.save(TRANSACTION_2);
53         transactionRepository.save(TRANSACTION_3);
54         transactionRepository.save(TRANSACTION_4);
55
56         assertEquals(transactions, transactionRepository.findAll());
57     }
58
59     @Test
60     public void deleteTransaction_success() {
61         List<Transaction> transactions = new ArrayList<Transaction>(Arrays.asList(TRANSACTION_1));
62         transactionRepository.save(TRANSACTION_1);
63         assertEquals(transactions, transactionRepository.findAll());
64         transactionRepository.delete(TRANSACTION_1);
65         transactions.clear();
66         assertEquals(transactions, transactionRepository.findAll());
67     }
68
69 //    @Test
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text, exclude) Launch Java Tests - Trac ▾

```
onContextCustomizer@cl130745, org.springframework.boot.test.autoconfigure.filter.TypeExcludeFiltersContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyMapInContextCustomizer@d0f93895, org.springframework.boot.test.autoconfigure.web.servlet.WebApplicationContextCustomizerFactory@customizer@1cbbffcd, org.springframework.boot.test.context.SpringBootTestTestRg@81, contextLoader = 'org.springframework.boot.test.context.SpringBootTestContextLoader', parent = [null], attributes = map[{}]
```

2021-09-18 23:58:48.278 INFO 25216 --- [extShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'

2021-09-18 23:58:48.278 INFO 25216 --- [extShutdownHook] .SchemaDropperImpl\$DelayedDropActionImpl : ::HHH000477: Starting delayed evictData of schema as part of SessionFactory shut-down'

Hibernate: drop table if exists book CASCADE

Hibernate: drop table if exists book_review CASCADE

Hibernate: drop table if exists business CASCADE

Hibernate: drop table if exists request CASCADE

Hibernate: drop table if exists transaction CASCADE

Hibernate: drop table if exists user CASCADE

Hibernate: drop table if exists user_review CASCADE



The screenshot shows a Java IDE interface with several tabs open. The main tab displays a class with multiple test methods: `getTransactionsByID_null()`, `getTransactionsByBuyerID_success()`, and `getTransactionsBySellerID_success()`. Each method contains code to save four transaction objects into a repository and then assert that the repository returns null or the correct list of transactions. Below the code editor is a toolbar with buttons for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and COMMENTS. A search bar labeled 'Filter (e.g. text, exclude)' is positioned above the terminal area. The bottom of the screen shows the Java command-line output, which includes logs from the Spring Boot application and Hibernate, indicating the shutdown of the application and the dropping of database tables.

```
78
79     @Test
80     public void getTransactionsByID_null() {
81         transactionRepository.save(TRANSACTION_1);
82         transactionRepository.save(TRANSACTION_2);
83         transactionRepository.save(TRANSACTION_3);
84         transactionRepository.save(TRANSACTION_4);
85
86         assertEquals(null, transactionRepository.findById(51).orElse(null));
87     }
88
89     @Test
90     public void getTransactionsByBuyerID_success() {
91         List<Transaction> transactions = new ArrayList<Transaction>(Arrays.asList(TRANSACTION_1, TRANSACTION_3, TRANSACTION_4));
92         transactionRepository.save(TRANSACTION_1);
93         transactionRepository.save(TRANSACTION_2);
94         transactionRepository.save(TRANSACTION_3);
95         transactionRepository.save(TRANSACTION_4);
96
97         assertEquals(transactions, transactionRepository.findByBuyerID(11));
98     }
99
100    @Test
101    public void getTransactionsBySellerID_success() {
102        List<Transaction> transactions = new ArrayList<Transaction>(Arrays.asList(TRANSACTION_1, TRANSACTION_2));
103        transactionRepository.save(TRANSACTION_1);
104        transactionRepository.save(TRANSACTION_2);
105        transactionRepository.save(TRANSACTION_3);
106        transactionRepository.save(TRANSACTION_4);
107
108        assertEquals(transactions, transactionRepository.findBySellerID(11));
109    }

```

PROBLEMS 9 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text, exclude) Launch Java Tests - Trac ▾

```
onTextCustomizer@cl30745, org.springframework.boot.test.autoconfigure.filter.TypeExcludeFilters$ContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyAppIn
gContextCustomizer@df0f93895, org.springframework.boot.test.autoconfigure.web.servlet.WebDriverContextCustomizer$Customizer@1cbfffd, org.springframework.boot.test.context.SpringBootTestA
rgs@1, contextLoader = 'org.springframework.boot.test.context.SpringBootContextLoader', parent = [null], attributes = map[{}]
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownhook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownhook] .SchemaDropperImpl$DelayedDropActionImpl : ######00477: Starting delayed evictData of schema as part of SessionFactory shut-down'
Hibernate: drop table if exists book CASCADE
Hibernate: drop table if exists book_review CASCADE
Hibernate: drop table if exists business CASCADE
Hibernate: drop table if exists request CASCADE
Hibernate: drop table if exists transaction CASCADE
Hibernate: drop table if exists user CASCADE
Hibernate: drop table if exists user_review CASCADE
```

The screenshot shows a Java code editor and a terminal window. The code editor displays a test class with several test methods. The terminal window shows the execution of the tests and the corresponding log output.

```
110
111     @Test
112     public void updateTransaction_success() {
113         Transaction savedTransaction = transactionRepository.save(TRANSACTION_1);
114         assertThat(savedTransaction).hasFieldOrPropertyWithValue("buyerID", 11);
115         TRANSACTION_1.setBuyerID(21);
116         transactionRepository.save(TRANSACTION_1);
117         assertThat(savedTransaction).hasFieldOrPropertyWithValue("buyerID", 21);
118     }
119
120 }
```

```
PROBLEMS 9 OUTPUT DEBUG CONSOLE TERMINAL COMMENTS Filter (e.g. text, exclude) Launch Java Tests - Test ▾ ×
gContextCustomizer@0d0f93895, org.springframework.boot.test.autoconfigure.filter.TypeExcludeFiltersContextCustomizer@351584c0, org.springframework.boot.test.autoconfigure.properties.PropertyMapIn
rgs@1], contextLoader = "org.springframework.boot.test.context.SpringBootTest", parent = [null], attributes = map[[empty]])
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default'
2021-09-18 23:58:40.278 INFO 25216 --- [extShutdownHook] .SchemaDropperImpl$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as part of SessionFactory shut-down'
Hibernate: drop table if exists book CASCADE
Hibernate: drop table if exists book_review CASCADE
Hibernate: drop table if exists business CASCADE
Hibernate: drop table if exists request CASCADE
Hibernate: drop table if exists transaction CASCADE
Hibernate: drop table if exists user CASCADE
Hibernate: drop table if exists user_review CASCADE
```

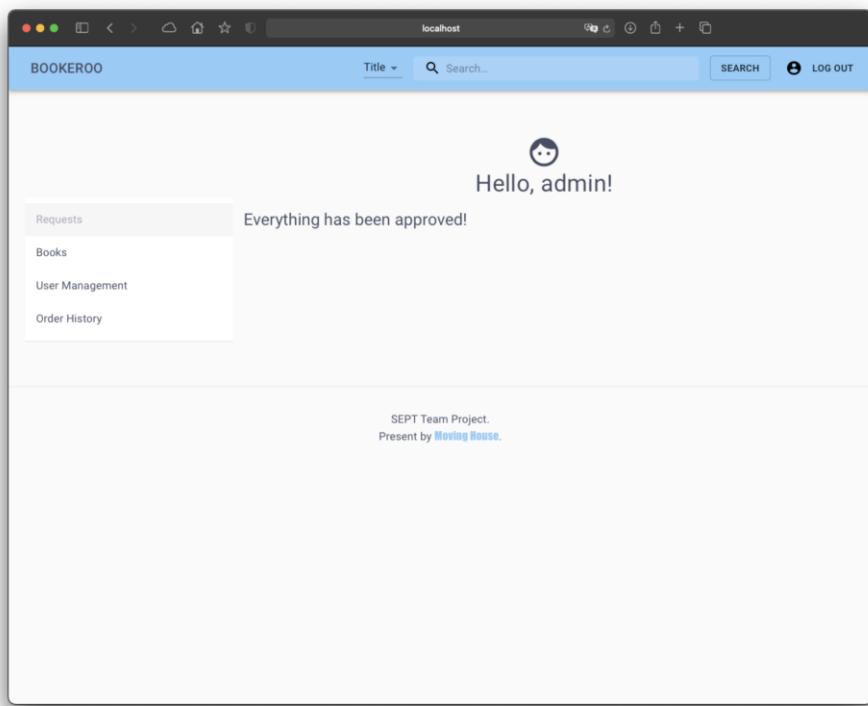
Acceptance Testing:

As an Admin, I want to login to my admin account so that I can access my admin profile.

Admin login page:

The screenshot shows a web browser window for 'localhost' displaying the 'BOOKEROO' website. The top navigation bar includes a 'Title' dropdown, a search bar with placeholder 'Search...', and buttons for 'SEARCH', 'LOGIN', and 'SIGNUP'. The main content area is titled 'Login'. It features two input fields: 'User Name' containing 'admin' and 'Password' containing '*****'. Below these is a 'LOGIN' button with a key icon. Underneath the form is a link 'LOGIN IN WITH TWITTER' with a Twitter icon. At the bottom of the form is a link 'Don't have an account? [Create one now!](#)'. In the footer, it says 'SEPT Team Project.' and 'Present by [Moving House](#)'.

After successfully logged in, admin will be redirected to admin dashboard



As an Admin, I want to view all current users, so that I can see all user information.

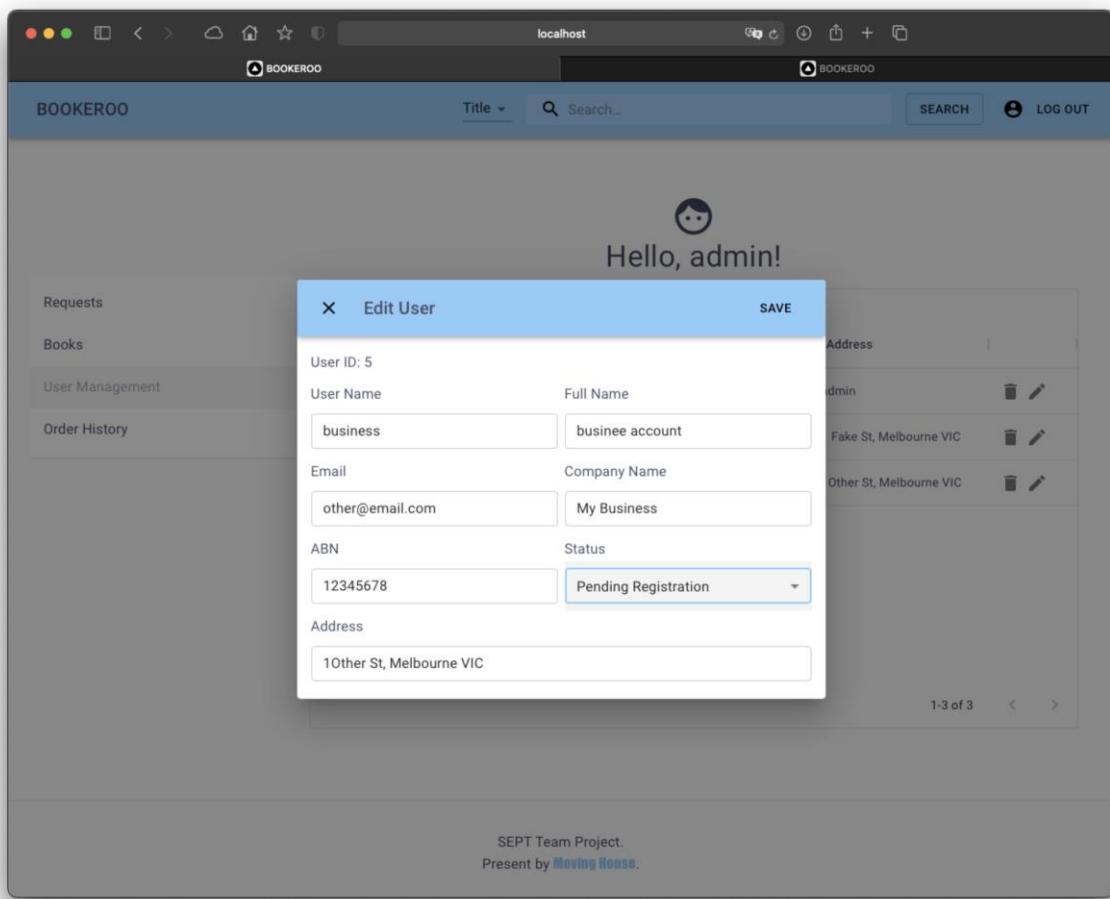
The screenshot shows a web-based application interface for managing users. At the top, there's a navigation bar with icons for back, forward, refresh, and search, followed by the URL 'localhost' and the 'BOOKEROO' logo. Below the navigation is a header bar with a search input field, a 'SEARCH' button, and a 'LOG OUT' link. The main content area features a large 'Hello, admin!' message with a user icon above it. To the left, a sidebar has four items: 'Requests', 'Books', 'User Management' (which is highlighted in blue), and 'Order History'. The central part of the screen is a table titled 'EXPORT' with five columns: 'ID', 'Username', 'Email', 'Full Name', and 'Address'. There are three rows of data in the table:

ID	Username	Email	Full Name	Address
3	admin	ali.elly.gong@g...	admin	admin
4	userone	g@gmail.com	uer one	1 Fake St, Melbourne VIC
5	business	other@email.co...	businee account	10ther St, Melbourne VIC

At the bottom right of the table, there are three rows of icons: a trash can, a pencil, and a magnifying glass. Below the table, a small text indicates '1-3 of 3' with navigation arrows. The footer of the page contains the text 'SEPT Team Project.' and 'Present by Moving House.'

As an Admin, I want to modify users, so that I can suspend/unsuspend users from their account.

Admin will be able to change the user status to suspend/unsuspend user account



After click the save button, information will be updated in database.

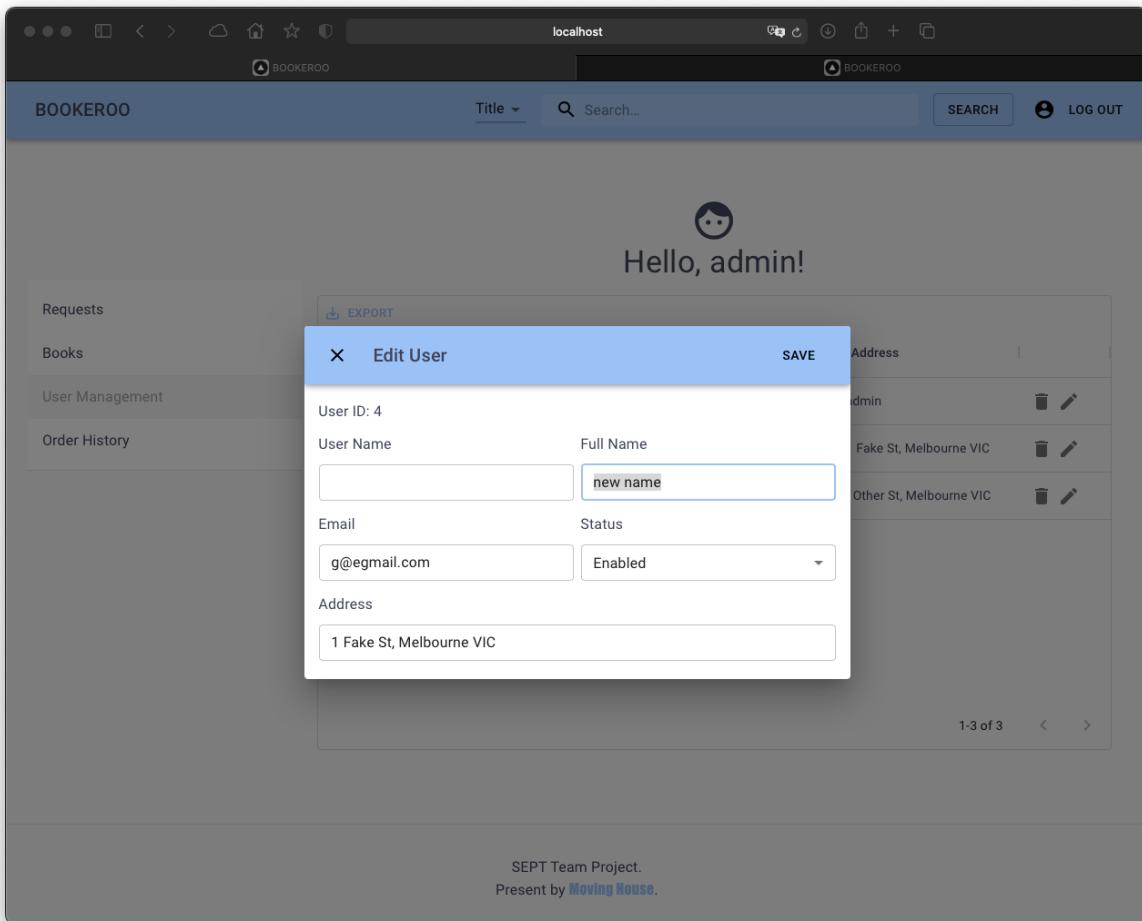
The screenshot shows a web application titled "BOOKEROO" running on "localhost". The main header includes a logo, a search bar with placeholder "Search...", and buttons for "SEARCH" and "LOG OUT". Below the header, a message "Hello, admin!" is displayed next to a user icon. On the left, a sidebar lists "Requests", "Books", "User Management" (which is currently selected), and "Order History". The central area features a table titled "EXPORT" with columns: "ID", "Username", "Email", "Full Name", and "Address". The table contains three rows of data:

ID	Username	Email	Full Name	Address
3	admin	aili.elly.gong@g...	admin	admin
4	userone	g@gmail.com	uer one	1 Fake St, Melbourne VIC
5	business	other@email.co...	businee account	10ther St, Melbourne VIC

At the bottom of the table, there are navigation links "1-3 of 3 < >". A green notification bar at the bottom left says "User information for ID 5 has been updated!". At the bottom right, it says "SEPT Team Project. Present by Moving House."

As an Admin, I want to modify user accounts, so that I can edit user information.

Admin will be able to open the dialog to edit user information which will be save to database.



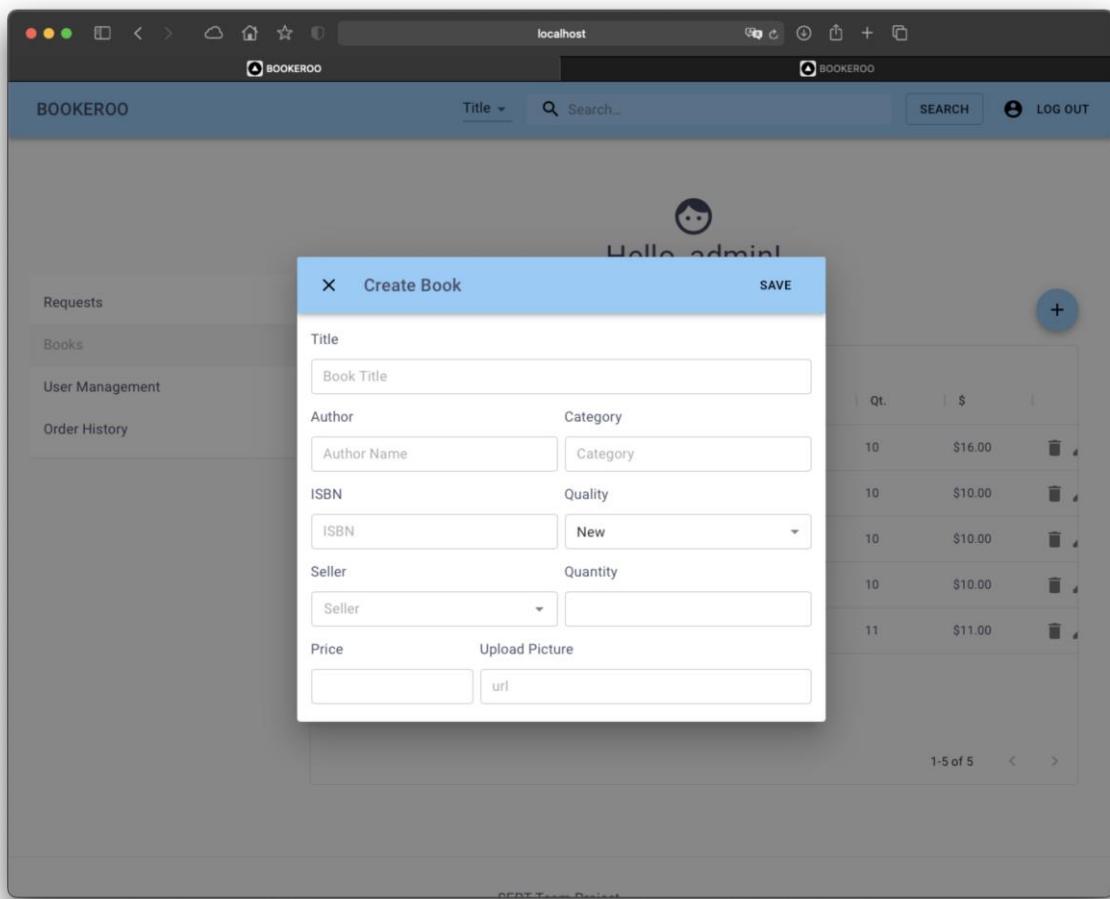
As an Admin, I want to add new books, so that new items can be sold.
In the book tab, there is a add button for admin to add a new book.

The screenshot shows a web-based application for managing a library or bookstore, titled "BOOKEROO". The interface is designed for an administrator, as indicated by the "Hello, admin!" greeting at the top right. A sidebar on the left provides navigation links for "Requests", "Books", "User Management", and "Order History". The main content area displays a table of books with the following columns: ID, Title, Status, Author, isbn, Qt., and \$. There are five entries in the table:

ID	Title	Status	Author	isbn	Qt.	\$
2	Beautiful Worl...	AVAILABLE	authormame	571365434	10	\$16.00
3	title3	AVAILABLE	authormame	0	10	\$10.00
4	title4	AVAILABLE	authormame	0	10	\$10.00
5	title4	AVAILABLE	authormame	0	10	\$10.00

A blue circular button with a plus sign (+) is located in the top right corner of the main content area. At the bottom of the table, there is a page number indicator "1-5 of 5" followed by navigation arrows.

Admin will be able to fill all book info and save to database



As an Admin, I want to edit books, so that I can update the correct data.

in the book tab, admin will be able to click the edit button to edit book info.

localhost

BOOKEROO

Title ▾ Search... LOG OUT

Hello, admin!

Requests

Books

User Management

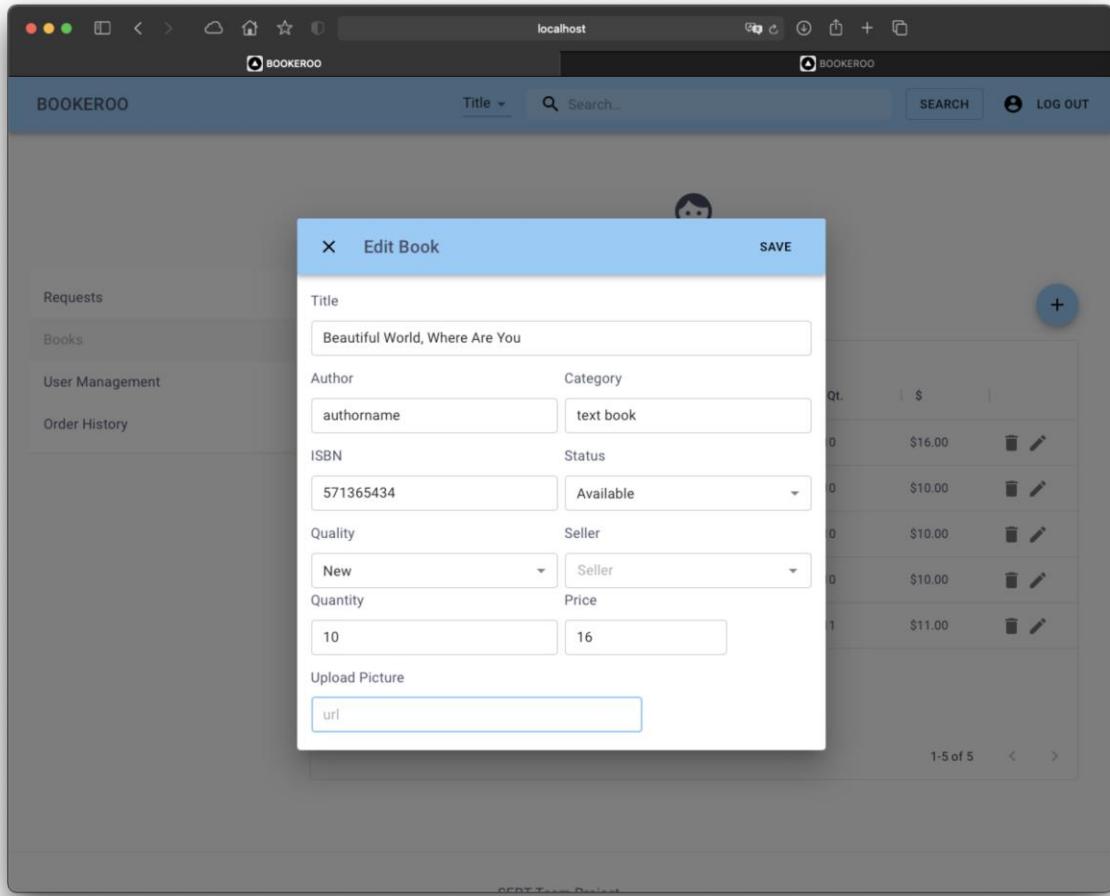
Order History

EXPORT

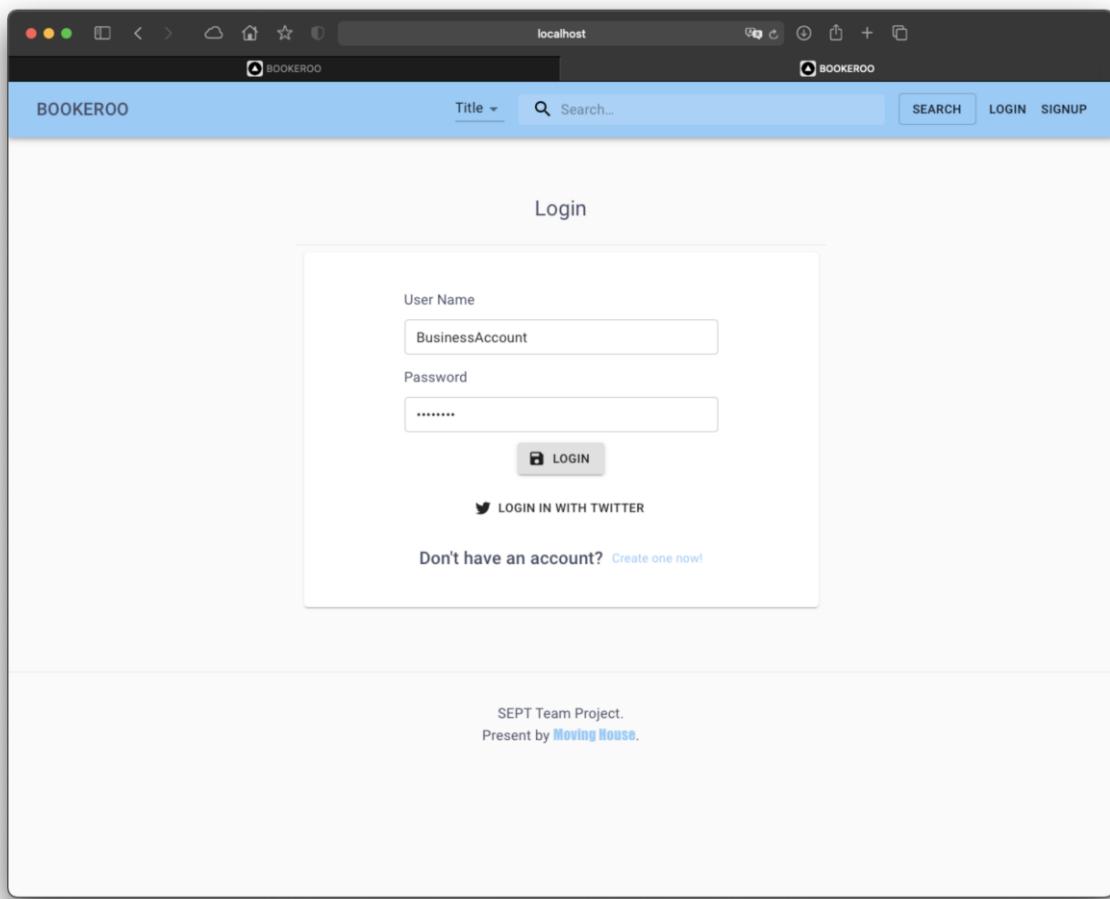
ID	Title	Status	Author	isbn	Qt.	\$	
2	Beautiful Worl...	AVAILABLE	authormame	571365434	10	\$16.00	
3	title3	AVAILABLE	authormame	0	10	\$10.00	
4	title4	AVAILABLE	authormame	0	10	\$10.00	
5	title4	AVAILABLE	authormame	0	10	\$10.00	
6	new book	UNAVAILABLE	new book	1111111	11	\$11.00	

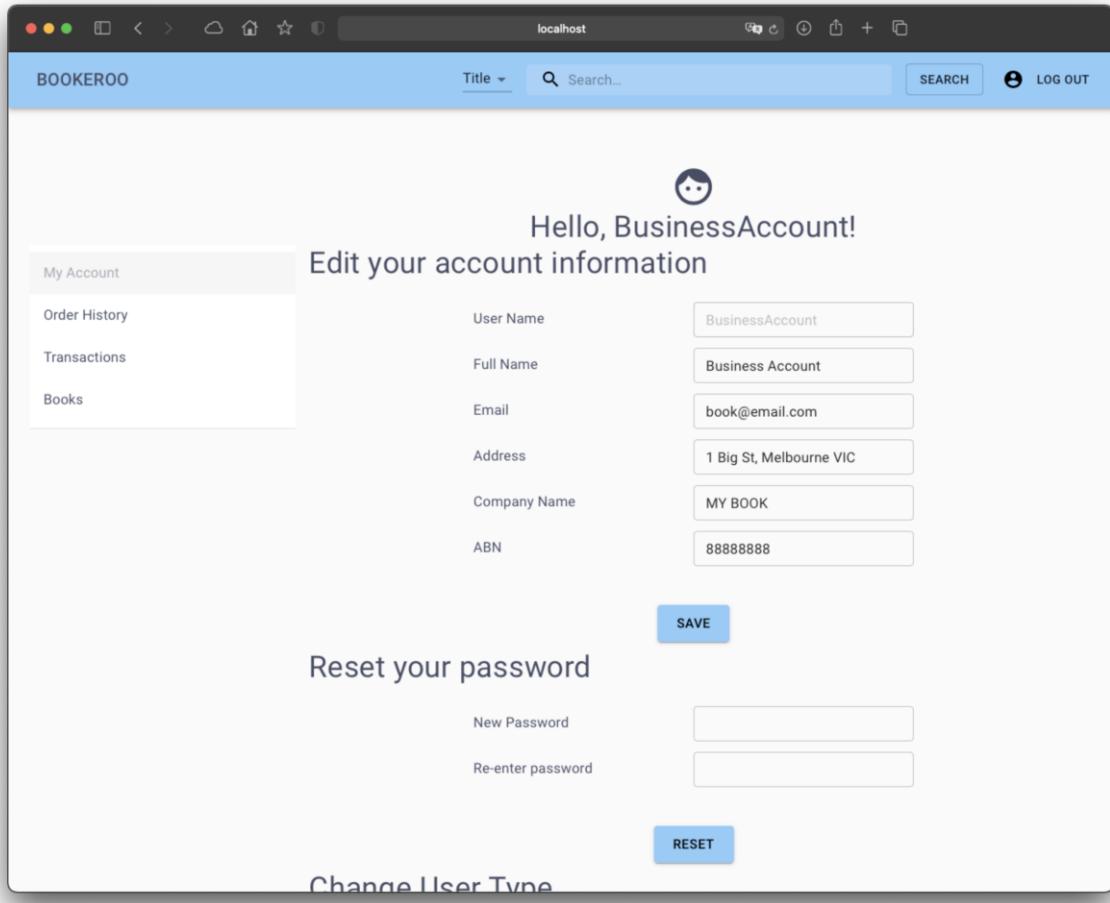
1-5 of 5 < >

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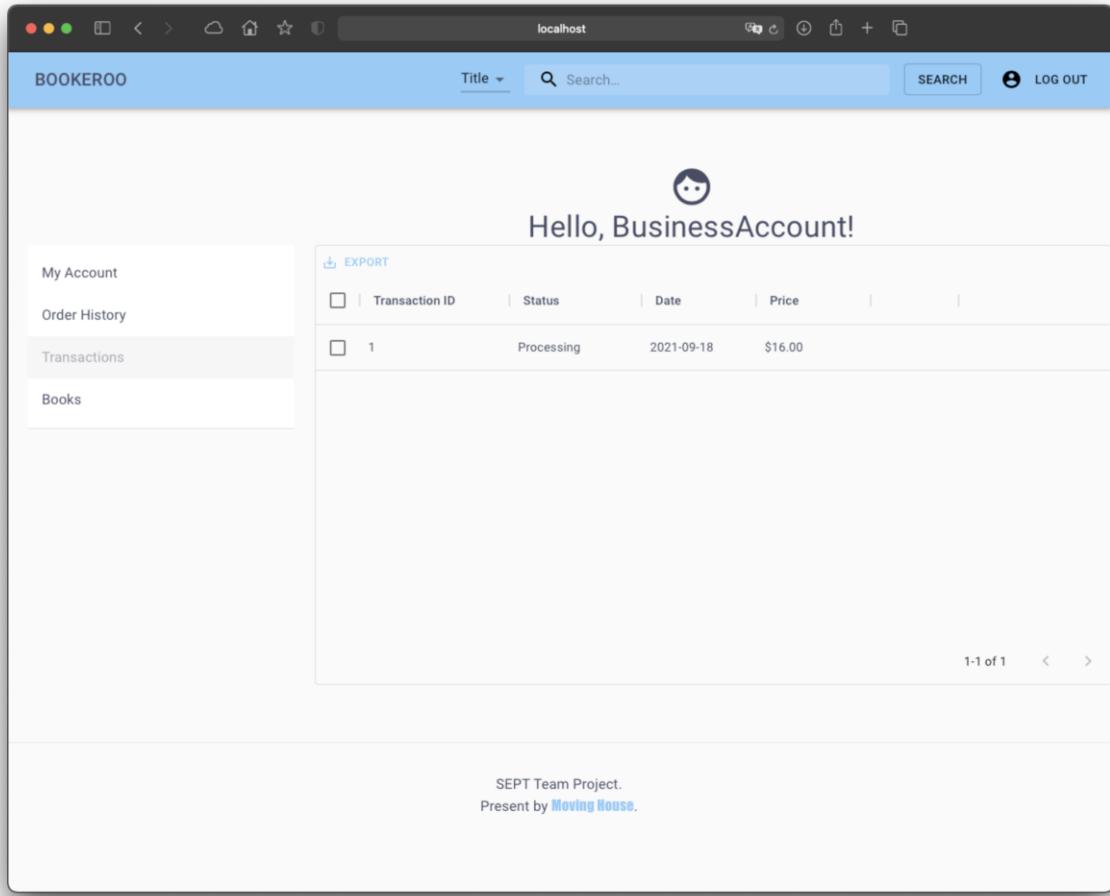


As a business user, I want to be able to login to my business account so that I can access my business profile





As a business user, I want to be able to see all previous transactions, so I know how often transactions are happening.



As a business user, I want to be able to edit the books I am managing, so I can fix mistakes when originally created the book page.
User will be able to see all books under this account

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The top navigation bar includes a search bar with "Title" dropdown, a search icon, and a "LOG OUT" button. The main content area features a "Hello, BusinessAccount!" greeting with a user icon. On the left, a sidebar lists "My Account", "Order History", "Transactions", and "Books", with "Books" currently selected. The main panel displays a table of book transactions:

	ID	Title	Status	Author	isbn	Qt.	\$	
<input type="checkbox"/>	1	Apples Never...	AVAILABLE	authorname	1760785024	10	\$16.00	
<input type="checkbox"/>	2	Beautiful Worl...	AVAILABLE	authorname	571365434	10	\$16.00	

At the bottom of the table, there are navigation arrows for "1-2 of 2". The footer of the application contains the text "SEPT Team Project." and "Present by Moving Houses".

by clicking the edit button, user will be able to edit the book info

localhost

BOOKEROO

Title SEARCH LOG OUT

Hello, BusinessAccount!

My Account

Order History

Transactions

Books

Edit Book

SAVE

Title Apples Never Fall

Author authorname **Category** text book

ISBN 1760785024 **Status** Available

Quality New **Quantity** 10

Price 16 **Upload Picture** url

Qt. \$

0 \$16.00

0 \$16.00

1-2 of 2 < >

SEPT Team Project.
Presented by [Meiling Xiong](#)

As a customer, I want to view the details of the book I am thinking of buying, so I can be more informed on my decision.

The screenshot shows a web browser window with a blue header bar. The header includes the title "BOOKEROO", a search bar with placeholder "Search...", a "SEARCH" button, and a "LOG OUT" link. Below the header is a sidebar with links: "Home", "New Releases", "Best Sellers", and "Maybe You Like". The main content area displays the book "Apples Never Fall" by Liane Moriarty. The book cover features a green tree with the title "apples never fall" written in white on its leaves. The author's name, "LIANE MORIARTY", is printed below the tree in purple. At the bottom of the cover, it says "The no. 1 New York Times bestselling author of Big Little Lies and Nine Perfect Strangers". To the right of the cover, the book title "Apples Never Fall" is displayed in bold black text, followed by "By authorname (Author)" and "ISBN: 1760785024". Below this is a five-star rating icon with "(0)". A "PREVIEW" button is in a blue box. Underneath, the price is listed as "Price: \$16". A "Quantity:" field shows "1" with a dropdown arrow. At the bottom right is a pink "ADD TO CART" button. At the very bottom of the page, there is a footer with the text "Reviews List" and "SEPT Team Project. Present by Moving House."

As an admin, I want to approve a pending registration from a business user so that they can open a new business account.

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The top navigation bar includes a search bar, a "SEARCH" button, and a "LOG OUT" link. A sidebar on the left lists "Requests", "Books", "User Management", and "Order History". The main content area displays a "Hello, admin!" message with a user icon. Below it is a table titled "EXPORT" showing a single row of data:

ID	Request Type	Request Object	Action
6	NEW_BUSINESS_USER	6	APPROVE REJECT

At the bottom of the page, a footer note reads: "SEPT Team Project.
Present by [Moving House](#)".

localhost

BOOKEROO

Title

Create a New Account

[Create a Business Account](#)

User Name

Full Name

Address

Email

Password

Re-enter Password

Already have an account? [Login Now](#)

As a customer, I want to be able to search for books so that I can view information about the book.

There is a search bar on the top which allows user search for a book.

localhost

BOOKEROO

Title

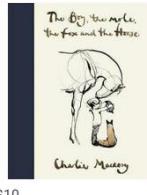
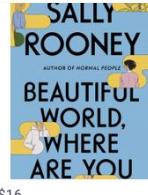
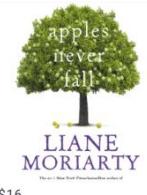
Home [New Releases](#) [VIEW MORE >>](#)

New Releases

[New Releases](#)

[Best Sellers](#)

[Maybe You Like](#)

 \$10 title4 ★★★★★ (0)	 \$10 title4 ★★★★★ (0)	 \$16 Beautiful World, Where ... ★★★★★ (0)	 \$16 Apples Never Fall ★★★★★ (0)
--	--	---	---

[Best Sellers](#) [VIEW MORE >>](#)

As a Customer, I want to be able to view my transaction history, so that I can see all my recently bought books

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The interface includes a top navigation bar with a search bar, a user icon, and a "LOG OUT" button. On the left, there's a sidebar with "My Account" sections for "Order History", "Transactions", and "Books". The main content area displays a message "Hello, userone!" above a table titled "EXPORT". The table has columns for Transaction ID, Status, Date, and Price. It contains one row with data: Transaction ID 1, Status Processing, Date 2021-09-18, and Price \$16.00. At the bottom of the page, there's a footer note: "SEPT Team Project. Present by Moving House."

<input type="checkbox"/>	Transaction ID	Status	Date	Price	
<input type="checkbox"/>	1	Processing	2021-09-18	\$16.00	

1-1 of 1 < >

SEPT Team Project.
Present by [Moving House](#).

As an admin, I want to approve a pending registration from a business user so that they can open a new business account.

The screenshot shows a web browser window for 'BOOKEROO' on 'localhost'. The title bar includes standard OS X icons and the URL 'localhost'. The top navigation bar has a logo, a search bar with placeholder 'Search...', and buttons for 'SEARCH' and 'LOG OUT'. A sidebar on the left lists 'Requests', 'Books', 'User Management', and 'Order History'. The main content area displays a 'Hello, admin!' message with a user icon. Below it is a table titled 'EXPORT' showing a single row of data:

	ID	Request Type	Request Object	
<input type="checkbox"/>	5	NEW_BUSINESS_USER	5	APPROVE REJECT

At the bottom of the page, there is a footer note: 'SEPT Team Project.
Present by [Moving House](#)'.

As an Admin, I want to reject books to be sold by customers, so that fake or invalid books are not listed for selling

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The top navigation bar includes a "Title" dropdown, a search bar with placeholder "Search...", a "SEARCH" button, and a "LOG OUT" link. A user icon with the text "Hello, admin!" is displayed. On the left, a sidebar menu lists "Requests", "Books", "User Management", and "Order History". The main content area displays a table titled "EXPORT" with two rows of data:

	ID	Request Type	Request Object	
<input type="checkbox"/>	6	NEW_BUSINESS_USER	6	APPROVE REJECT
<input type="checkbox"/>	7	NEW_BOOK_LISTING	8	APPROVE REJECT

At the bottom of the page, a footer note reads: "SEPT Team Project.
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As an Admin, I want to be able to download reports about books in CSV format, so that I can review what books are available on the website

By clicking the export button, admin will be able to download the book table as csv

The screenshot shows a web-based administration interface for a system named 'BOOKEROO'. At the top, there's a navigation bar with icons for back, forward, search, and user authentication ('SEARCH' and 'LOG OUT'). Below the header, a message 'Hello, admin!' is displayed next to a small user icon.

The main area features a sidebar on the left with links for 'Requests', 'Books', 'User Management', and 'Order History'. The 'Books' link is currently active, indicated by a blue background. To the right of the sidebar is a large table titled 'EXPORT' with a 'Download as CSV' button.

The table has columns for 'Title', 'Status', 'Author', 'isbn', 'Qt.', '\$', and a delete icon. Six rows of data are listed:

	Title	Status	Author	isbn	Qt.	\$	Action
<input checked="" type="checkbox"/>	1 Apples Never...	AVAILABLE	authorname	1760785024	10	\$16.00	
<input checked="" type="checkbox"/>	2 Beautiful Worl...	AVAILABLE	authorname	571365434	10	\$16.00	
<input checked="" type="checkbox"/>	3 title3	AVAILABLE	authorname	0	10	\$10.00	
<input checked="" type="checkbox"/>	4 title4	AVAILABLE	authorname	0	10	\$10.00	
<input checked="" type="checkbox"/>	5 title4	AVAILABLE	authorname	0	10	\$10.00	
<input checked="" type="checkbox"/>	8 Pending Book	PENDING_AP...	Author	1234567890	1	\$29.00	

At the bottom of the table, it says '6 rows selected' and shows page navigation '1-6 of 6'.

As an Admin, I want an option to choose how the CSV files are sorted, so I can see what the most popular item is.
For each exportable table could be sorted by each column.

The screenshot shows a web application interface titled "BOOKEROO" running on "localhost". At the top, there is a navigation bar with icons for back, forward, search, and user authentication ("LOG OUT"). Below the header, a greeting "Hello, admin!" is displayed next to a user icon.

The main content area features a sidebar on the left with links: "Requests", "Books", "User Management", and "Order History". The "Books" link is currently active, indicated by a blue background. To the right of the sidebar is a table listing books. The table has columns for "ID", "Title", "Status", "Author", "isbn", "Qt.", and "\$".

A context menu is open over the first row of the table, showing options: "EXPORT", "Unsort", "Sort by ASC", "Sort by DESC", "Filter", "Hide", and "Show columns". The table displays six rows of data:

ID	Title	Status	Author	isbn	Qt.	\$
1	title4	AVAILABLE	authorname	1760785024	10	\$16.00
2	Pending Book	PENDING_AP...	Author	571365434	10	\$16.00
3		AVAILABLE	authorname	0	10	\$10.00
4		AVAILABLE	authorname	0	10	\$10.00
5	title4	AVAILABLE	authorname	0	10	\$10.00

At the bottom of the table, there is a page number indicator "1-6 of 6" and navigation arrows. A small watermark "GERT Team Project" is visible at the bottom center of the page.

As a Admin, I want to be able to download reports about user transactions in CSV format, so that I can review the sales history of the website

localhost

BOOKEROO

Title ▾ Search... LOG OUT

Hello, admin!

Requests

Books

User Management

Order History

[EXPORT](#)

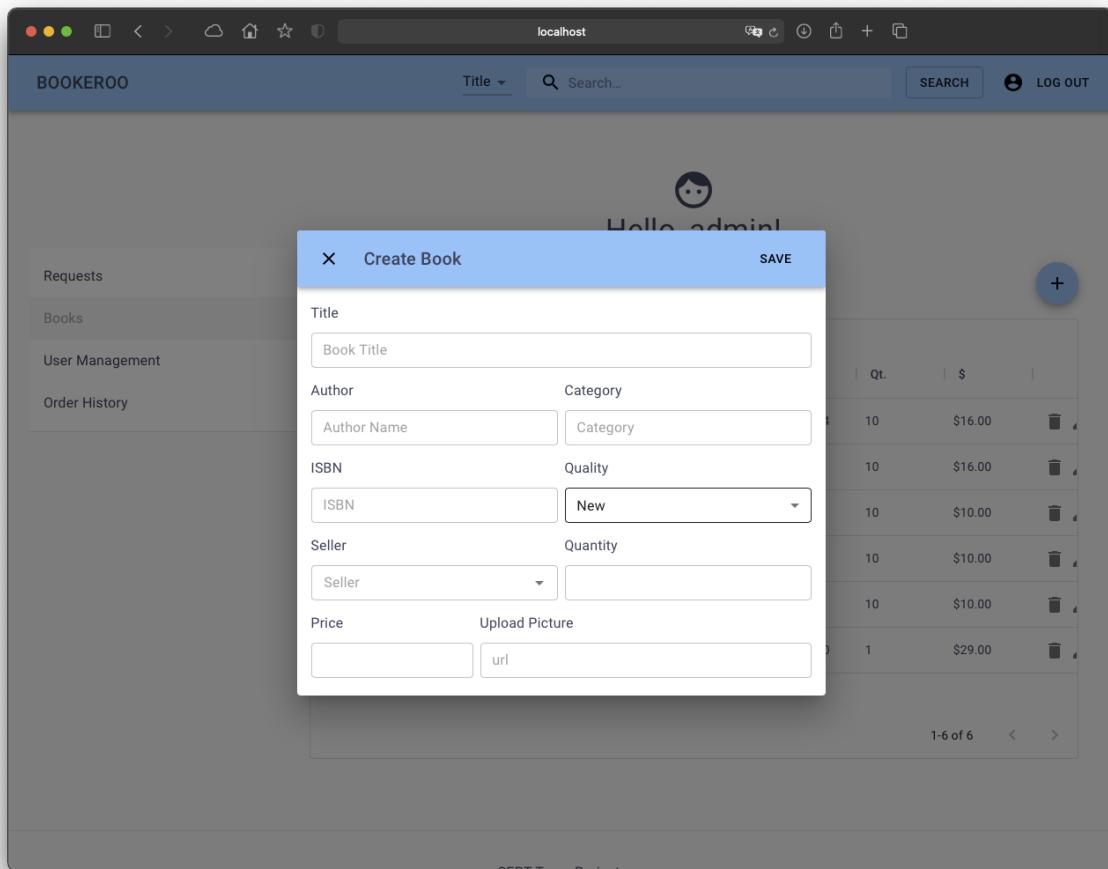
Download as CSV

	Status	Date	Price	
<input type="checkbox"/>	1	Processing	2021-09-18	\$16.00

1-1 of 1 < >

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As an Admin, I want to add new books, so that new items can be sold.



As an admin, I want to reject a pending registration from a business user so that they are unable to open a new business account.
Admin could reject the business account request by clicking the reject button after each request

The screenshot shows a web application running on localhost. The title bar includes a logo, the text "BOOKEROO", a search bar with placeholder "Search...", and buttons for "SEARCH" and "LOG OUT". The main content area features a "Hello, admin!" greeting with a user icon. On the left, a sidebar has a "Requests" tab selected, showing links for "Books", "User Management", and "Order History". The central area displays a table titled "EXPORT" with two rows of data:

	ID	Request Type	Request Object	
<input type="checkbox"/>	6	NEW_BUSINESS_USER	6	APPROVE REJECT
<input type="checkbox"/>	7	NEW_BOOK_LISTING	8	APPROVE REJECT

At the bottom of the page, there is a footer note: "SEPT Team Project.
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As an Admin, I want to be able to add stock for a book, so that sellers can add stock to any books in their inventory.

In the edit book page, admin will be able change the number of quantities

localhost

BOOKEROO

Title Search...

Edit Book

Requests

Books

User Management

Order History

+

SAVE

Title: Apples Never Fall

Author: authorname

Category: text book

ISBN: 1760785024

Status: Available

Quality: New

Seller: Seller

Quantity: 10

Price: 16

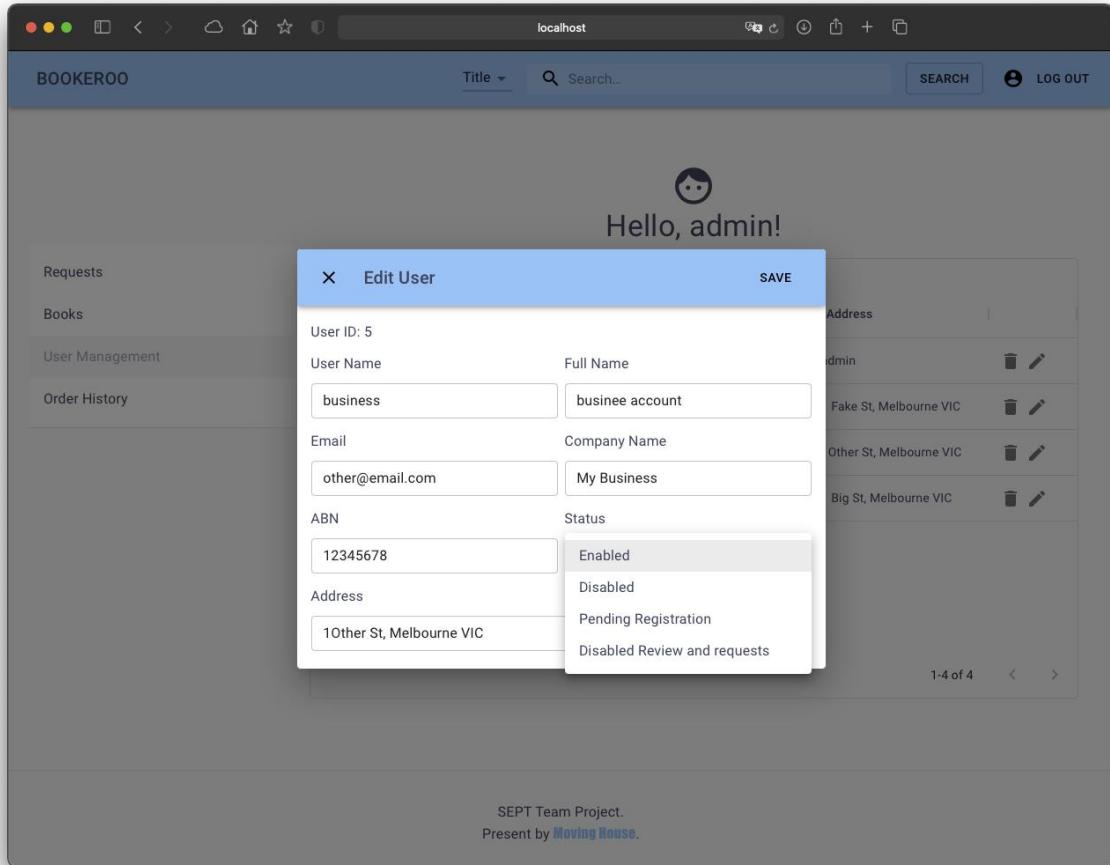
Upload Picture: url

Qt. | \$ |

0	\$16.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
0	\$16.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
0	\$10.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
0	\$10.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
0	\$10.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
0	\$29.00	<input type="button" value="Delete"/> <input type="button" value="Edit"/>

1-6 of 6 < >

As an Admin, I want to modify users, so that I can suspend/unsuspend users from their account.



As a business user, I want to export a CSV of transactions, so I know if the business is making a profit

Similar to an admin account, business user will able to download the transaction history of the book they sold.

localhost

BOOKEROO

Title Search... LOG OUT

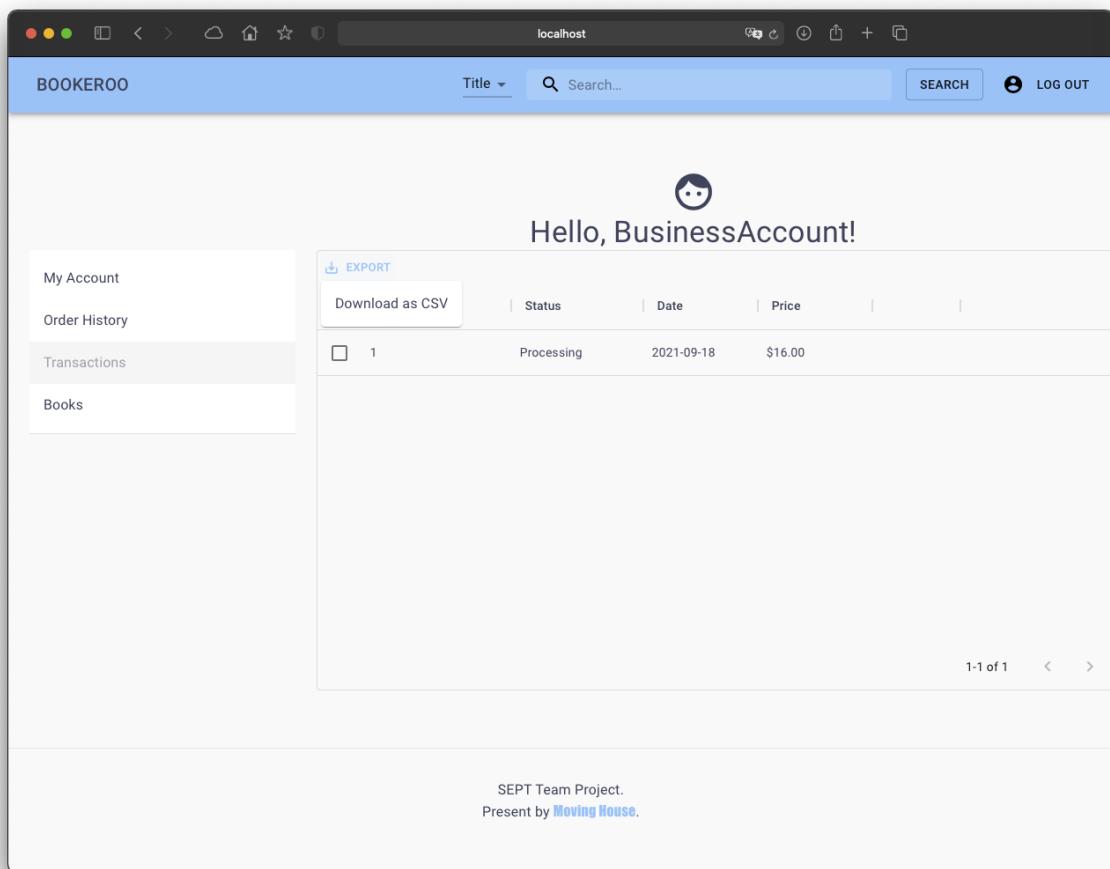
 Hello, BusinessAccount!

EXPORT

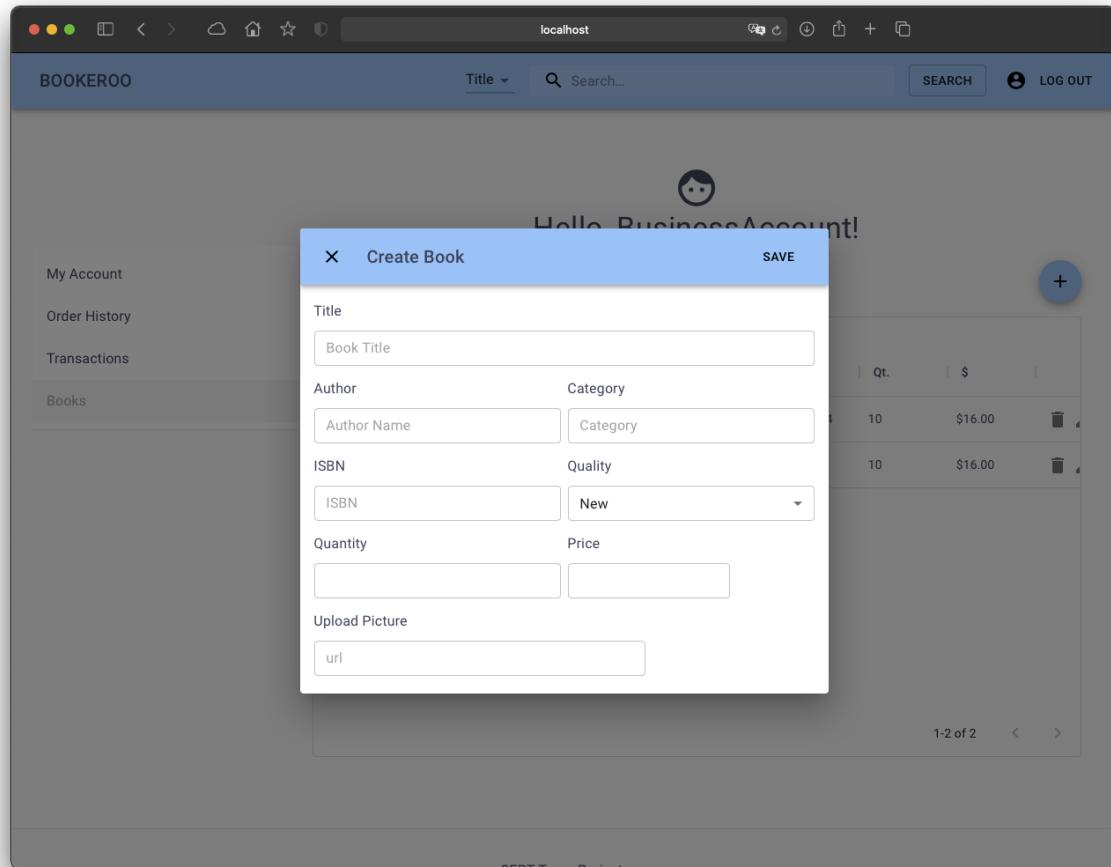
	Status	Date	Price
<input type="checkbox"/> 1	Processing	2021-09-18	\$16.00

1-1 of 1 < >

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As a business user, I want to be able to upload an item to sell, so that an admin can approve it.



As a business user, I want to be able to register a business account so that I can sell and rent my books to customers.

localhost

BOOKEROO

Title ▾ Search...

SEARCH LOGIN SIGNUP

Create a New Account

Create a Business Account

User Name

Full Name

Address

Company Name

ABN

Email

Password

Re-enter Password

As a business user, I want to be able to see all previous transactions, so I know how often transactions are happening.

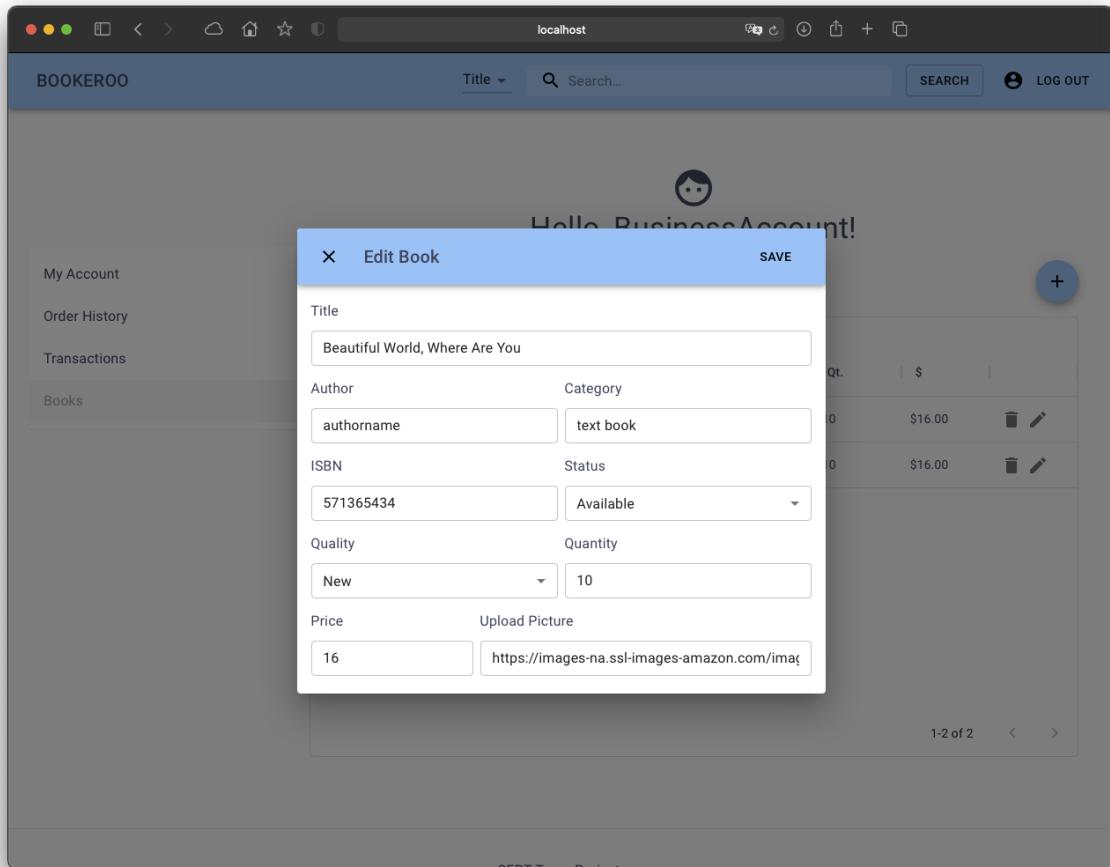
The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The main header includes a search bar with "Title" dropdown and "Search..." input, a "SEARCH" button, and a "LOG OUT" link. A user icon is also present. The main content area displays a message "Hello, BusinessAccount!" above a table titled "EXPORT". The table has columns: Transaction ID, Status, Date, Price, and a checkbox header. One row is visible: Transaction ID 1, Status Processing, Date 2021-09-18, Price \$16.00. On the left, a sidebar menu lists "My Account", "Order History" (which is selected), "Transactions", and "Books". At the bottom, a footer notes "SEPT Team Project. Present by [Moving House](#)".

<input type="checkbox"/>	Transaction ID	Status	Date	Price	
<input type="checkbox"/>	1	Processing	2021-09-18	\$16.00	

1-1 of 1 < >

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As a business user, I want to be able to edit the books I am managing, so I can fix mistakes when originally created the book page.



As a customer, I want to view my profile page so I can change my password

localhost

Transactions	Full Name	Business Account
Books	Email	book@email.com
	Address	1 Big St, Melbourne VIC
	Company Name	MY BOOK
	ABN	88888888

SAVE

Reset your password

New Password

Re-enter password

RESET

Change User Type

Submit request to change to Normal User

SUBMIT REQUEST

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As a customer, I want to be able to sort my search results so that my search query starts from the lowest cost item.

BOOKEROO

Home

New Releases

Best Sellers

Maybe You Like

Sort Order **Price Low to High**

Title Search...

SEARCH LOG OUT

The Boy, the mole, the fox and the horse
Charlie Mackesy \$10 title3 ★★★★★ (0)

The Boy, the mole, the fox and the horse
Charlie Mackesy \$10 title4 ★★★★★ (0)

The Boy, the mole, the fox and the horse
Charlie Mackesy \$10 title4 ★★★★★ (0)

SALLY ROONEY
AUTHOR OF NORMAL PEOPLE
Beautiful World, Where ...
\$16 Beautiful World, Where ...
★★★★★ (0)

SEPT Team Project.
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As a customer, I want to be able to sort my search results so that my search query is ordered alphabetically.

localhost

BOOKEROO

Title ▾

SEARCH

LOG OUT

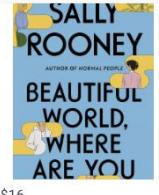
Home

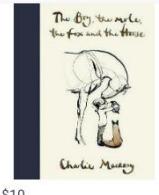
New Releases

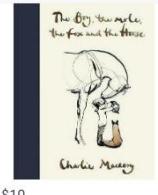
Best Sellers

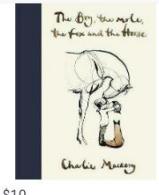
Maybe You Like

Sort Order **Alphabetical**


\$16
Beautiful World, Where ...
 (0)


\$10
title3
 (0)


\$10
title4
 (0)


\$10
title4
 (0)

SEPT Team Project.
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As a Customer, I want to be able to view my order status, so that I can see the current status of my order.

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The main header includes a search bar with placeholder "Title" and a "SEARCH" button, along with a "LOG OUT" link. On the left, a sidebar menu under "My Account" lists "Order History", "Transactions", and "Books". The central content area displays a message "Hello, userone!" above a table titled "EXPORT". The table has columns for Transaction ID, Status, Date, and Price. A single row is shown with Transaction ID 1, Status Processing, Date 2021-09-18, and Price \$16.00. At the bottom of the page, a footer notes "SEPT Team Project. Present by Moving House."

<input type="checkbox"/>	Transaction ID	Status	Date	Price	
<input type="checkbox"/>	1	Processing	2021-09-18	\$16.00	

1-1 of 1 < >

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As a customer, I want to be able to search for books in the catalog by the category of the book so that I can find books with a specific category

localhost

BOOKEROO

Category ▾

SEARCH

LOG OUT

Home

New Releases

Best Sellers

Maybe You Like

Sort Order **Alphabetical**

Apples Never Fall
LIANE MORIARTY

\$16

Apples Never Fall
★★★★★ (0)

SALLY ROONEY

BEAUTIFUL WORLD, WHERE ARE YOU

\$16

Beautiful World, Where ...
★★★★★ (0)

The Big, Bad Mole, the Fox and the House
Charlie Mackesy

\$10

title3
★★★★★ (0)

The Big, Bad Mole, the Fox and the House
Charlie Mackesy

\$10

title4
★★★★★ (0)

The Big, Bad Mole, the Fox and the House
Charlie Mackesy

\$10

title4
★★★★★ (0)

SEPT Team Project.
Present by [Moving House](#).

This screenshot shows a web browser displaying the 'BOOKEROO' website. The page has a blue header bar with the title 'BOOKEROO' on the left, a search bar with the placeholder 'Category t', a 'SEARCH' button, and a 'LOG OUT' link on the right. Below the header is a sidebar with links for 'Home', 'New Releases', 'Best Sellers', and 'Maybe You Like'. A dropdown menu labeled 'Sort Order' is set to 'Alphabetical'. The main content area displays five book cards in a grid. The first card is for 'Apples Never Fall' by Liane Moriarty, priced at \$16. The second card is for 'BEAUTIFUL WORLD, WHERE ARE YOU' by Sally Rooney, also at \$16. The third card is for 'The Big, Bad Mole, the Fox and the House' by Charlie Mackesy, priced at \$10. The fourth and fifth cards are identical, showing the same book cover and price. At the bottom of the page, there is a footer note: 'SEPT Team Project. Present by [Moving House](#)'.

As a customer, I want to be able to search for books in the catalog by the name of the author so that I can find books written by a specific author

localhost

BOOKEROO

SEARCH LOG OUT

Title

Author

Category

ISBN

Home

New Releases

Best Sellers

Maybe You Like

Sort Order

\$16
Apples Never Fall
★★★★★ (0)

\$16
Beautiful World, Where ...
★★★★★ (0)

\$10
title3
★★★★★ (0)

\$10
title4
★★★★★ (0)

\$10
title4
★★★★★ (0)

SEPT Team Project.
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▲

As a customer, I want to be able to search for books in the catalog by the title of the book so that I can find books with a specific title or series title

BOOKEROO

localhost

SEARCH LOG OUT

Home New Releases Best Sellers Maybe You Like

Sort Order

Title SEARCH

Author Category ISBN

Image	Title	Author	Price	Rating
	Apples Never Fall	Liane Moriarty	\$16	★★★★★ (0)
	Beautiful World, Where Are You	SALLY ROONEY	\$16	★★★★★ (0)
	title3	Charlie Mosey	\$10	★★★★★ (0)
	title4	Charlie Mosey	\$10	★★★★★ (0)
	title4	Charlie Mosey	\$10	★★★★★ (0)

SEPT Team Project.
Present by [Moving House](#).

As a customer, I want to be able to search for books in the catalog by the book's ISBN so that I can find books with a specific ISBN

localhost

BOOKEROO

SEARCH LOG OUT

Home

New Releases

Best Sellers

Maybe You Like

Sort Order Alphabetical

Title

Author

Category

ISBN

000

\$16
Apples Never Fall
★★★★★ (0)

\$10
title3
★★★★★ (0)

\$10
title4
★★★★★ (0)

\$10
title4
★★★★★ (0)

The Boy, the mole, the fox and the Horse

Charlie Mackesy

SEPT Team Project.
Present by Moving House.

As a Customer, I want to be able to view my transaction history, so that I can see all my recently bought books

The screenshot shows a web application window titled "BOOKEROO" running on "localhost". The top navigation bar includes a search bar with "ISBN 000", a "SEARCH" button, and a "LOG OUT" link. A sidebar on the left lists "My Account", "Order History" (which is selected), "Transactions", and "Books". The main content area displays a message "Hello, userone!" above a table of transactions. The table has columns for "Transaction ID", "Status", "Date", and "Price". One row is shown, with details: Transaction ID 1, Status Processing, Date 2021-09-18, and Price \$16.00. At the bottom of the page, there is a footer note: "SEPT Team Project. Present by Moving House."

<input type="checkbox"/>	Transaction ID	Status	Date	Price	
<input type="checkbox"/>	1	Processing	2021-09-18	\$16.00	

1-1 of 1 < >

SEPT Team Project.
Present by [Moving House](#).