# HACETTEPE UNIVERSITY

# DEPARTMENT OF COMPUTER ENGINEERING

# **BBM 487 SOFTWARE ENGINEERING LAB**

# **TEST CASES**

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# 1. Login

#### 1.1 <testLoginWithValidInputsForValidUser>

Description: The user enters his/her username and password that is already registered. Main page for user should be opened

Pre-conditions: The user must click "Log In" button after s/he fills the form.

Post-conditions: Main page for user should be opened.

Data required: Username: valid, Password: valid

#### 1.2 <testLoginWithValidInputsForUnvalidUser>

<u>Description</u>: The user enters his/her username and password that is not registered. An error message should be shown.

<u>Pre-conditions</u>: The user must click "Log In" button after s/he fills the form.

Post-conditions: Login page should be opened after showing error message.

Data required: Username: valid, Password: valid

### 1.3 <testLoginWithUnvalidInputs>

<u>Description</u>: The user enters unvalid characters or NULL as input.

<u>Pre-conditions</u>: The user must click "Log In" button after s/he fills the form.

Post-conditions: Login page for user should be opened.

Data required: Username or Password: invalid

# 2. Logout

#### 2.1 <testLogout>

Description: When a user wants to log out, login page should be shown after closing connection.

<u>Pre-conditions</u>: The user must be logged in and click "Log out" button.

<u>Post-conditions</u>: Login page should be opened after showing closing connection.

Data required: -

## 3. Add Book

#### 3.1 <testAddExistingBookWithValidInputs>

Description: The library staff enters properties of the book by filling the form. A success message should be shown.

<u>Pre-conditions</u>: The staff must be logged in and click "Confirm" button.

Post-conditions: The stock number of the book must be increased by 1.

Data required: Title: valid, Author: valid

#### 3.2 <testAddNotExistingBookWithValidInputs>

Description: The library staff enters properties of the book by filling the form. A success message should be shown.

Pre-conditions: The staff must be logged in and click "Confirm" button.

Post-conditions: A new book should be recorded to the database.

Data required: Title: valid, Author: valid

#### 3.3 <testAddBookWithUnvalidInputs>

<u>Description</u>: The library staff enters unvalid characters or NULL as input. An error message shown and the adding book page should be shown.

<u>Pre-conditions</u>: The staff must be logged in and click "Confirm" button.

<u>Post-conditions</u>: Adding book page should be opened after showing an error message

Data required: Title or Author: unvalid

## 4. Update Book

#### 4.1 <testUpdateBookWithValidInputs>

<u>Description</u>: The staff enters valid inputs by filling the update form. A success message should be shown after saving changes. <u>Pre-conditions</u>: The staff must be logged in and book needed to be searched & found. Then staff must click on confirm button after filling form.

<u>Post-conditions</u>: Changes should be saved and a success message should be shown.

Data required: Title: Valid, Author: Valid

## 4.2 <testUpdateBookWithUnValidInputs>

<u>Description</u>: The staff enters unvalid or NULL inputs by filling the update form. An error message should be shown.

<u>Pre-conditions</u>: The staff must be logged in and book needed to be searched & found. Then staff must click on confirm button after filling form.

Post-conditions: An error message should be shown and update form will be shown again.

Data required: Title or Author: Invalid

#### 5. Delete Book

#### 5.1 <testDeleteBook>

<u>Description</u>: The staff clicks delete button for any book s/he wants to delete. A success message should be shown after saving changes.

Pre-conditions: The staff must be logged in and book needed to be searched & found. Then staff must click on delete button.

Post-conditions: An error message should be shown and update form will be shown again.

Data required: -

#### 6. Search Book

#### 6.1 <testSearchExistingBook>

Description: The user enters a book name to search field then click search button. The book should be shown.

<u>Pre-conditions</u>: The user must be logged in and click search button after s/he typed a name for book.

Post-conditions: The book that user wants should be shown with its properties in page.

Data required: title: valid

#### 6.2 <testSearchNonExistingBook>

Description: The user enters a book name to search field then click search button. A message should be shown.

Pre-conditions: The user must be logged in and click search button after s/he typed a name for book.

Post-conditions: A "not found" message should be shown.

Data required: title: valid

### 6.3 <testSearchBookWithUnvalidInput>

<u>Description</u>: User enters invalid or NULL as input. An error message should be shown.

Pre-conditions: The user must be logged in and click search button after s/he typed an input for book name.

Post-conditions: An error message should be shown.

Data required: title: unvalid

## 7. Borrow Book

#### 7.1 <testBorrowAvailableBook>

<u>Description</u>: The staff clicks borrow button for an existing book and confirms borrowing. A success message should be shown.

<u>Pre-conditions</u>: The staff must be logged in and click borrow button.

Post-conditions: A success message should be shown.

Data required: -

#### 7.2 <testBorrowUnavailableBook>

<u>Description</u>: The staff clicks borrow button for an existing book and confirms borrowing. An error message should be shown.

Pre-conditions: The staff must be logged in and click borrow button.

Post-conditions: An error message should be shown.

Data required: -

#### 8. Return Book

#### 8.1 <testReturnBorrowedBook>

<u>Description</u>: The staff clicks return button for a borrowed book. A success message should be shown.

<u>Pre-conditions</u>: The staff must be logged in and click return button.

Post-conditions: A success message should be shown and stock size of the book should be incremented.

Data required: -

#### 8.2 <testReturnUnborrowedBook>

<u>Description</u>: The staff clicks return button for an unborrowed book. An error message should be shown.

<u>Pre-conditions</u>: The staff must be logged in and click borrow button.

Post-conditions: An error message should be shown.

Data required: -

### 9. Add Member

#### 9.1 <testAddNewMember>

<u>Description</u>: The staff enters the informations of the new member and clicks add button. A success message should be shown.

Pre-conditions: The staff must be logged in.

<u>Post-conditions</u>: A new member(user) should be created and saved in the database. Then a success message should be shown.

Data required: username: valid, password: valid, firstname: valid, lastname: valid, email: valid, phone: valid

#### 9.2 <testAddExistingMember>

<u>Description</u>: The staff clicks borrow button for an existing member and confirms borrowing. An error message should be shown.

Pre-conditions: The staff must be logged in.

Post-conditions: An error message should be shown.

Data required: username: valid, password: valid, firstname: valid, lastname: valid, email: valid, phone: valid

#### 10. Delete Member

#### 10.1 <testDeleteExistingMember>

<u>Description</u>: The staff enters a username and clicks delete button for an existing member. A success message should be shown after user is deleted.

Pre-conditions: The staff must be logged in.

Post-conditions: User should be deleted from database and a success message should be shown.

Data required: username: valid

#### 10.2 <testDeleteNonexistingMember>

<u>Description</u>: The staff enters a username and clicks delete button for a nonexisting member. A success message should be shown after user is deleted.

Pre-conditions: The staff must be logged in.

Post-conditions: An error message should be shown.

Data required: username: valid

# 11. Update Member

#### 11.1 <testUpdateExistingMember>

<u>Description</u>: The staff enters a username and other properties for existing user. The changes should be saved and a success message should be shown.

Pre-conditions: The staff must be logged in.

<u>Post-conditions</u>: The system should update user in database with given properties and a success message should be shown.

Data required: username: valid, password: valid, firstname: valid, lastname: valid, email: valid, phone: valid

### 11.2 <testUpdateNonexistingMember>

Description: The staff enters a username and other properties for nonexisting user. An success message should be shown.

<u>Pre-conditions</u>: The staff must be logged in.

<u>Post-conditions</u>: An error message should be shown.

Data required: username: valid, password: valid, firstname: valid, lastname: valid, email: valid, phone: valid

### 12. View Books

#### 12.1 <testViewBooksExisting>

<u>Description</u>: The user clicks "view my books" button and his/her books that s/he borrowed should be listed.

<u>Pre-conditions</u>: The user must be logged in and has at least 1 borrowed books.

<u>Post-conditions</u>: Books borrowed by user should be listed with all of their properties.

Data required: -

#### 12.2 <testViewBooksNonexisting>

<u>Description</u>: The user clicks "view my books" button and a not found message should be listed.

<u>Pre-conditions</u>: The user must be logged in and must not have any borrowed books.

Post-conditions: A not found message should be shown.

Data required: -