

**PROJECT REPORT**

**ON**

**LIBRARY SYSTEM**

Submitted By:

Halil PEKER

-Student ID:B1805.090051

Faruk Önder BEYAZIT

-Student ID:B1805.090046

**SOFTWARE ENGINEERING&ENGINEERING  
FACULTY OF  
ISTANBUL AYDIN UNIVERSITY**

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## **Library System**

Done by:

Halil PEKER

Faruk Önder BEYAZIT

Doç. Dr. TANER ÇEVİK

Head of the Division

# ACKNOWLEDGEMENT

Firstly we would like to say we have improved to ourselves since we began this school therefore first of all we want to thank to Head of the Division Doç. Dr. TANER ÇEVİK.

Because he helped to us While we were making our Project . They Really deserve to be here . We believe that.

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## ABSTRACT

Library system is working with Computer. Library System has 2 option. The first option is for admin ,the second option is for person who has account. That person has to create a account to login the Library system. Then, when someone reach the program they can do many operations. We are going to explain these operations. If we summerize the library system, this program allows people to access books more easily.

## **CHAPTER 1**

### **INTRODUCTION**

This chapter gives an overview about the aim, objectives, background and operation environment of the system.

### **1.1 PROJECT AIMS AND OBJECTIVES**

To check last entries and time entered  
To add book easily  
To check books which are barrowed by users  
To check when users barrowed books  
To barrow book

## **1.2 BACKGROUND OF PROJECT**

Library Management System is an application which refers to library systems which are generally middle in size. This program is for Librarian, registered users. Librarians can use this program to adding books, importing books, viewing entries. Users can view boks, add boks and borrow books.

All these modules are able to help librarian to manage the library with more convenience and in a more efficient way as compared to library systems which are not computerized.

## **1.3 OPERATING SYSTEM**

PROCESSOR	INTEL CORE PROCESSOR OR BETTER PERFORMANCE
OPERATING SYSTEM	WINDOWS7 OR BETTER OPERATING SYSTEM
MEMORY	4 GB RAM OR MORE
HARD DISK SPACE	MIN 3 GB FOR TEXT USAGE FOR FUTURE
DATABASE	FILE TEXT



## **CHAPTER 2**

### **SYSTEM ANALYSIS**

#### **2.1 SOFTWARE REQUIREMENTS SPECIFICATION**

##### **2.1.1 GENERAL DISCRIPTION**

###### **PRODUCT DESCRIPTION:**

Library Management System is a computerized system which helps user(librarian) to manage the library daily activity in electronic format. It reduces the risk of paper work such as file lost, file damaged and time consuming. It can help user to manage the transaction or record more effectively and timesaving.

### PROBLEM STATEMENT:

- File lost When computerized system is not implemented file is always lost because of human environment. Some times due to some human error there may be a loss of records.
- File damaged When a computerized system is not there file is always lost due to some accident like spilling of water by some member on file accidentally. Besides some natural disaster like floods or fires may also damage the files.
- Difficult to search record When there is no computerized system there is always a difficulty in searching of records if the records are large in number .
- Space consuming After the number of records become large the space for physical storage of file and records also increases if no computerized system is implemented.
- Cost consuming As there is no computerized system the to add each record paper will be needed which will increase the cost for the management of library.

### **2.1.2 SYSTEM OBJECTIVES**

Improvement in control and performance

The system is developed to cope up with the current issues and problems of library. The system can add user, validate user and is also bug free.

Save cost

After computerized system is implemented less human force will be required to maintain the library thus reducing the overall cost.

Save time

Librarian is able to search record by using few clicks of mouse and few search keywords thus saving his valuable time.

## **2.1.3 SYSTEM REQUIREMENTS**

### **2.1.3 SYSTEM REQUIREMENTS**

#### **2.1.3.1 NON FUNCTIONAL REQUIREMENTS**

- Product Requirements

##### **EFFICIENCY REQUIREMENT**

When a library management system will be implemented librarian and user will easily access library as searching and book transaction will be very faster .

##### **RELIABILITY REQUIREMENT**

The system should accurately performs member registration ,member validation , book transaction and search

##### **USABILITY REQUIREMENT**

The system is designed for a user friendly environment so that student and staff of library can perform the various tasks easily and in an effective way.

### 2.1.3.2 FUNCTIONAL REQUIREMENTS

#### 1. USER

##### USER LOGIN

###### Description of feature

This feature used by the user to login into system. They are required to enter user id and password before they are allowed to enter the system. The user id and password will be verified and if invalid id is there user is allowed to not enter the system.

##### 1.2 REGISTER NEW USER

###### Description of feature:

This feature can be performed by all users to register new user to create account.

#### 2. ADMIN

###### Description of feature:

Admin can reach everything in the program

## **2.1.4 SOFTWARE AND HARDWARE REQUIREMENTS**

This section describes the software and hardware requirements of the system

### **2.1.4.1 SOFTWARE REQUIREMENTS**

Operating system- Windows 10 is used as the operating system as it is stable and supports more features and is more user friendly

***This program is written in Java.***

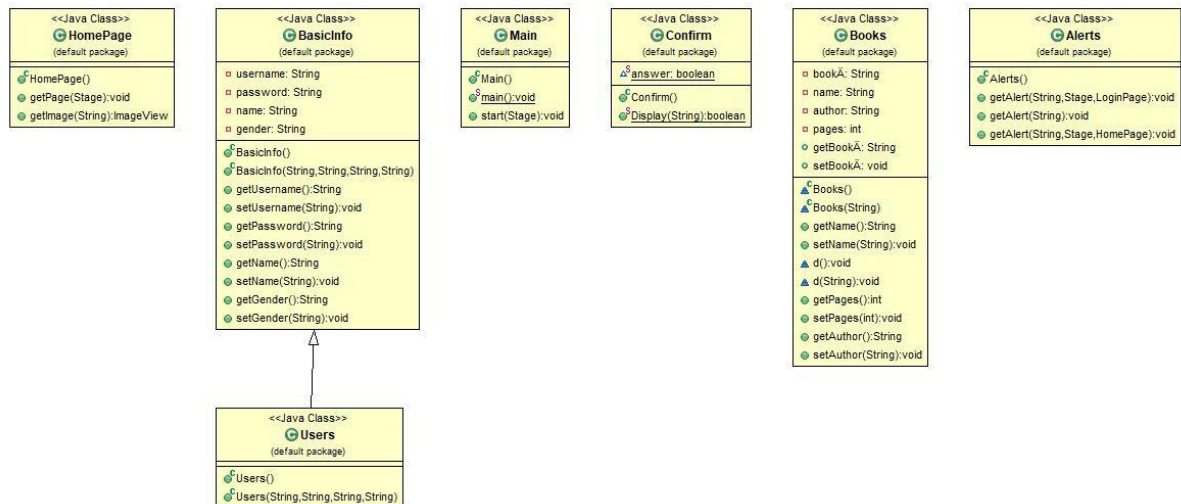
**THIS PROGRAM PROVIDED BY**  
**INTELLIJ IDE**

### **2.1.4.2 HARDWARE REQUIREMENTS**

Intel core i7 9th generation is used because we have this processor we have no options except this.

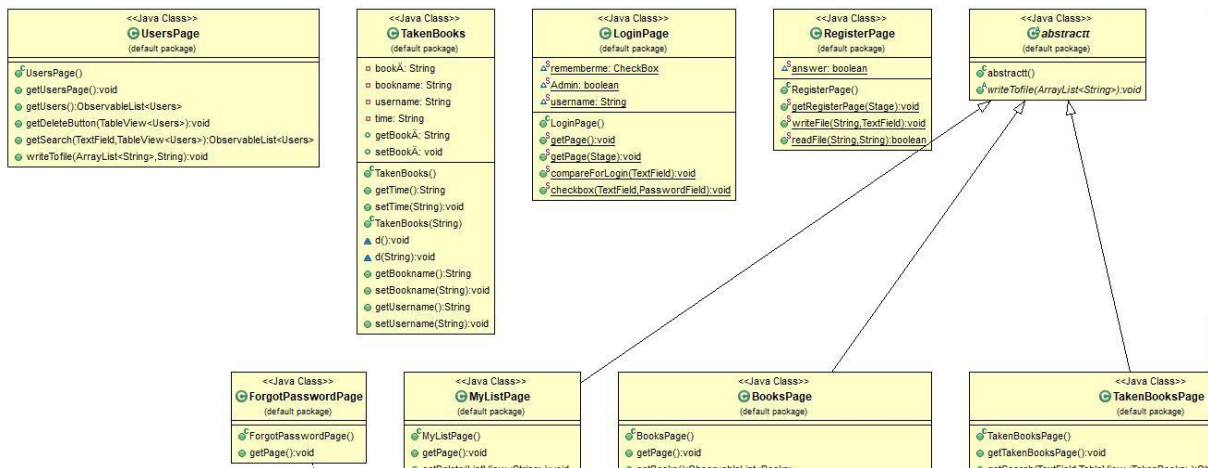
# UML DIAGRAMS

## Screenshot



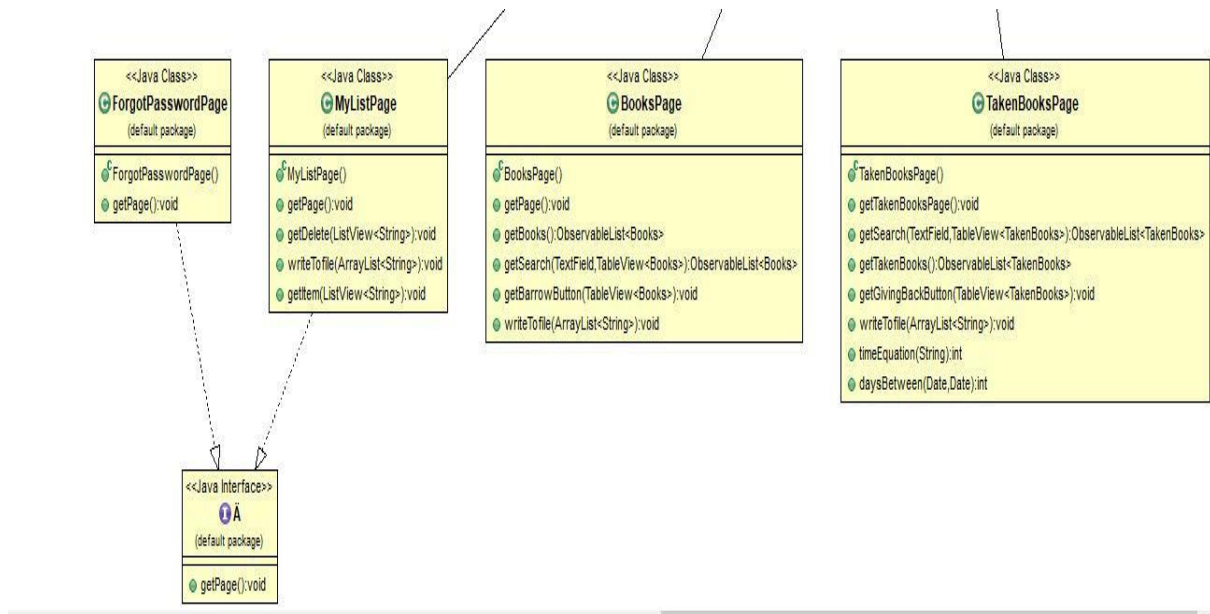
0.1

## Screenshot



0.2

## Screenshot

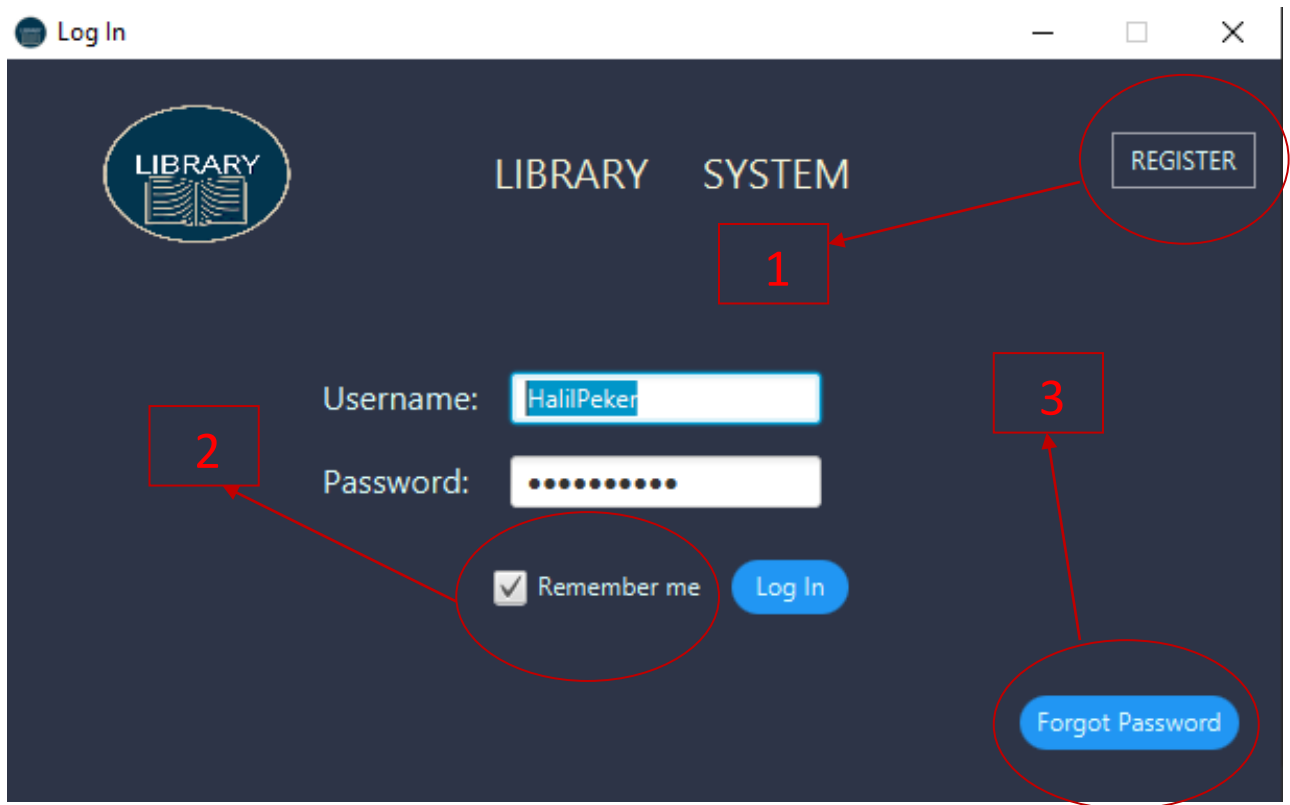


032



# 1. Log In Page

## Screenshot



1.0

### 1.1 (1) Register Button

The user who wants to register can access the registration section by clicking this button.

### 1.2 (2) Remember me Check Box

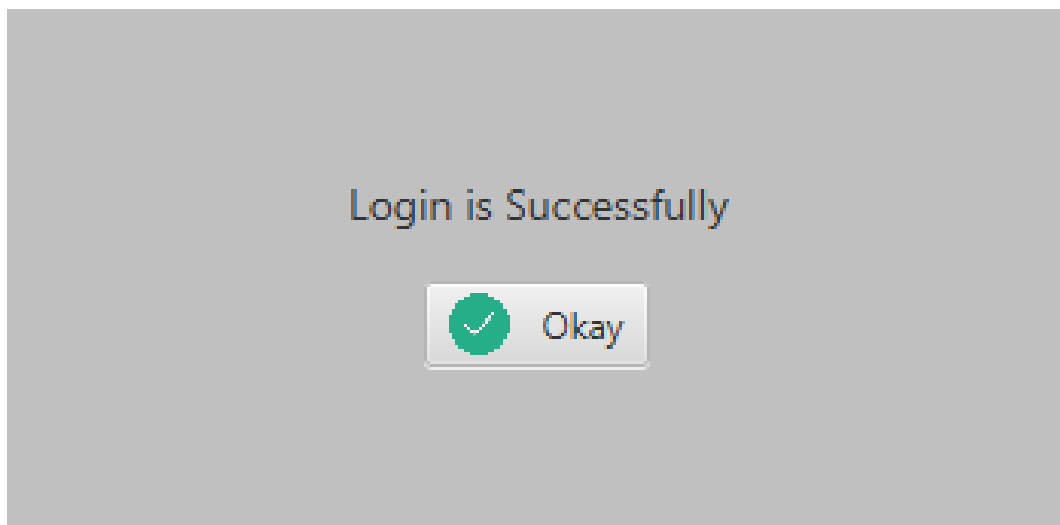
This option is selected to keep the information of the last user.

### 1.3 (3) Forgot Password Button

If the users has forgotten his password, they can press this button and access his password.

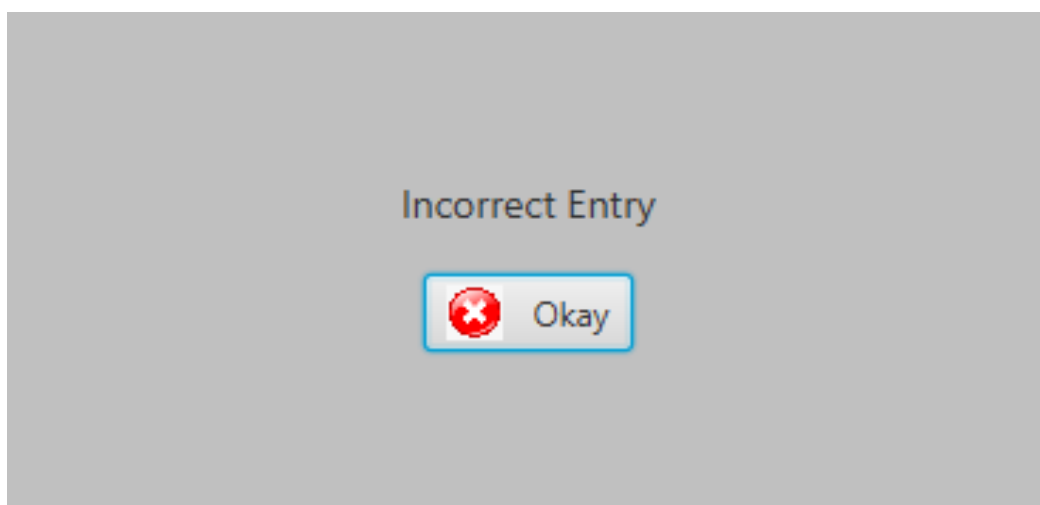
### 1.4 Notification

#### Screenshot



1.0.1

#### Screenshot



1.0.2

1.0.1 correct entry, 1.0.2 wrong entry notification.

## 2. Register Page

### Screenshot

The screenshot shows the 'LIBRARY SYSTEM' register page. It features a dark blue background with a 'LIBRARY' logo on the top left. The title 'LIBRARY SYSTEM' is centered at the top. A 'Return Back' button is in the top right corner. The registration form includes fields for Username, Name, Password, Re-Password, Question (a dropdown menu), Answer, and Gender (a dropdown menu). At the bottom are 'Register' and 'Cancel' buttons. Red annotations highlight specific elements: a red box labeled '1' points to the 'LIBRARY SYSTEM' title; a red circle labeled '2' points to the 'Question' dropdown menu; and a red circle labeled '3' points to the 'Gender' dropdown menu.

LIBRARY SYSTEM

Return Back

1

2

3

Username:

Name:

Password:

Re-Password:

Question:

Answer:

Gender:

Register Cancel

1.1

### 2.1 (1) Return Back Button

If you press this button, you can return to the login page.

## 2.2 (2) Question Choice Box

### Screenshot



The screenshot shows a registration form with the following fields and options:

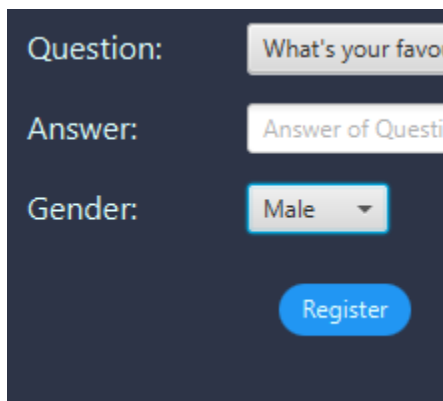
- Re-Password:** A text input field with the placeholder text "Re-Password".
- Question:** A dropdown menu with the following options:
  - ✓ What's your favourite book ? (Selected)
  - Define You with one word
  - What's your animal's name?
  - What's your favourite movie?
- Answer:** A text input field.
- Gender:** A text input field.
- Buttons:** "Register" and "Cancel" buttons.

1.2

The user must choose a question for password security.

## 2.3 (3) Gender Choice Box

### Screenshot



The screenshot shows a registration form with the following fields and options:

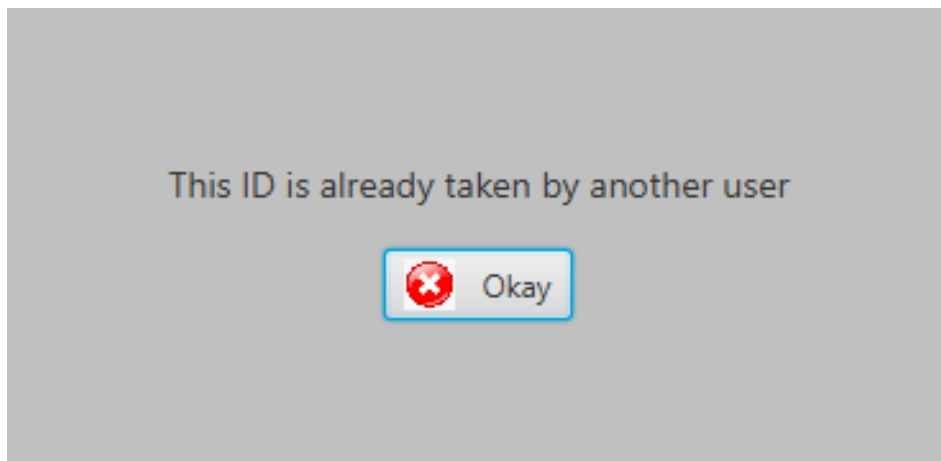
- Question:** A dropdown menu with the option "What's your favor".
- Answer:** A text input field with the placeholder text "Answer of Questi".
- Gender:** A dropdown menu with the option "Male".
- Buttons:** "Register" button.

1.3

Users chooses their gender.

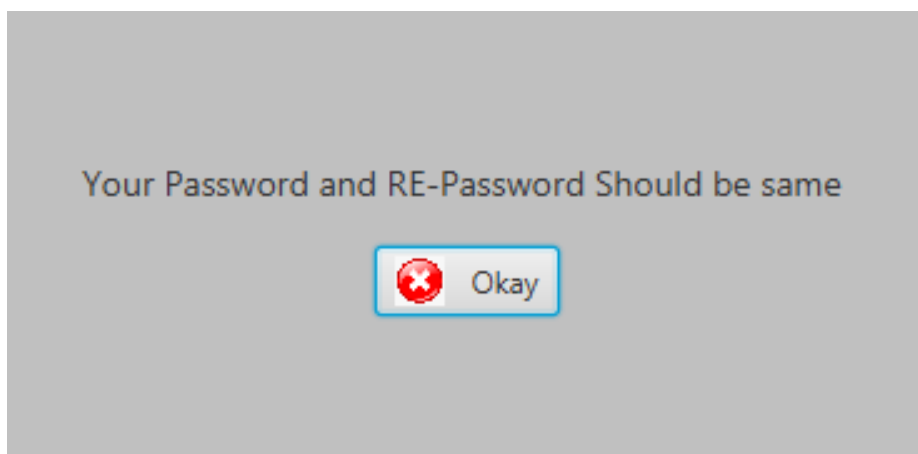
## 2.4 Notification For Register

### Screenshot



1.3.1

### Screenshot

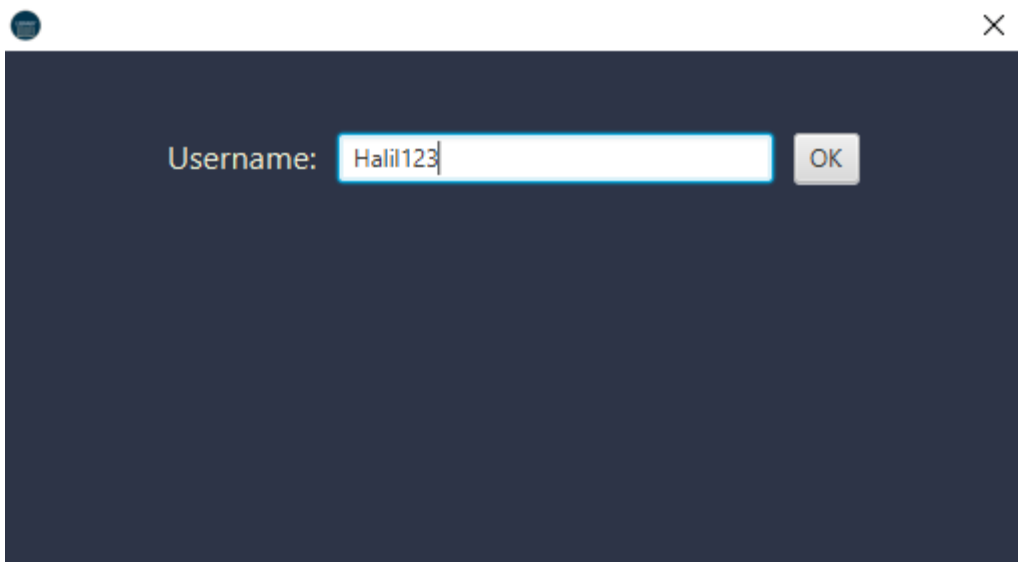


1.3.2

Picture 1.3.1 Same Username Notification and Picture 1.3.2 notification for different password and re-password.

### 3. Forgot Password Page

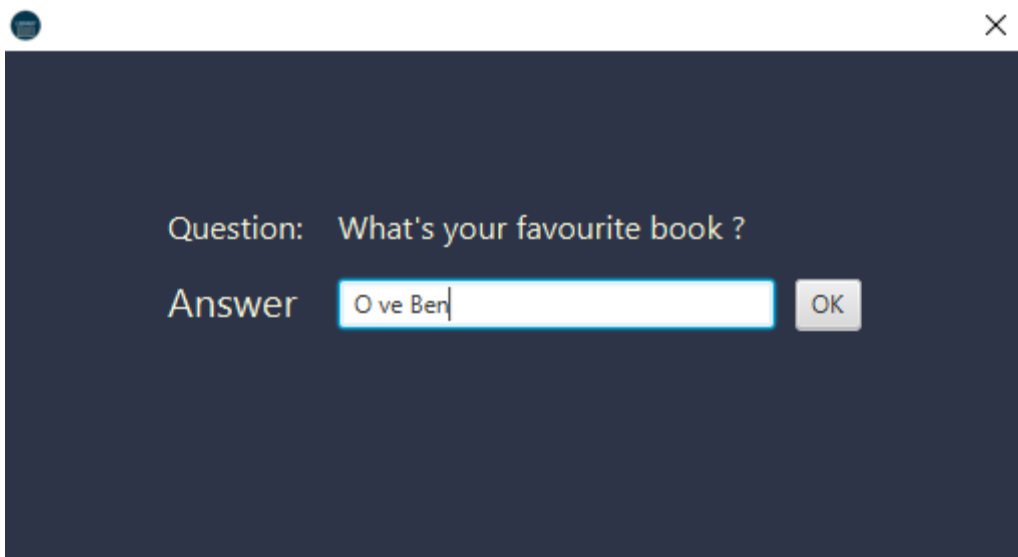
#### Screenshot



A screenshot of a web application window with a dark blue background. At the top left is a small blue circular icon, and at the top right is a close button (X). The main content area contains the text "Username:" followed by a white text input field containing "Halil123". To the right of the input field is a grey button with the text "OK".

1.4

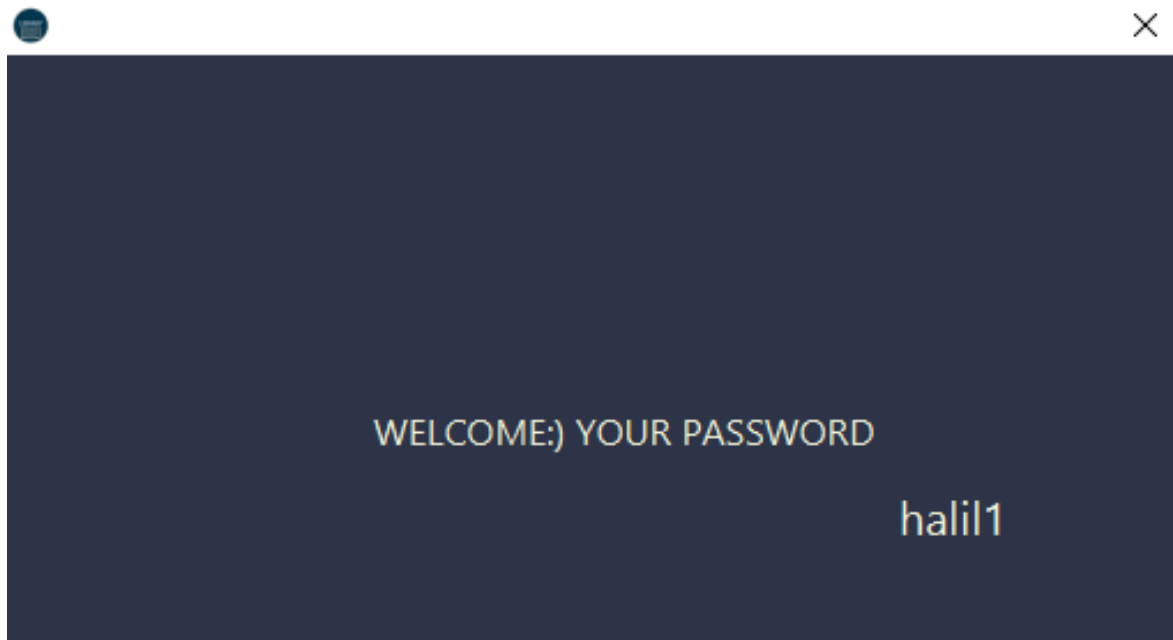
#### Screenshot



A screenshot of a web application window with a dark blue background. At the top left is a small blue circular icon, and at the top right is a close button (X). The main content area contains the text "Question: What's your favourite book ?" followed by the text "Answer" and a white text input field containing "O ve Ben". To the right of the input field is a grey button with the text "OK".

1.5

## Screenshot

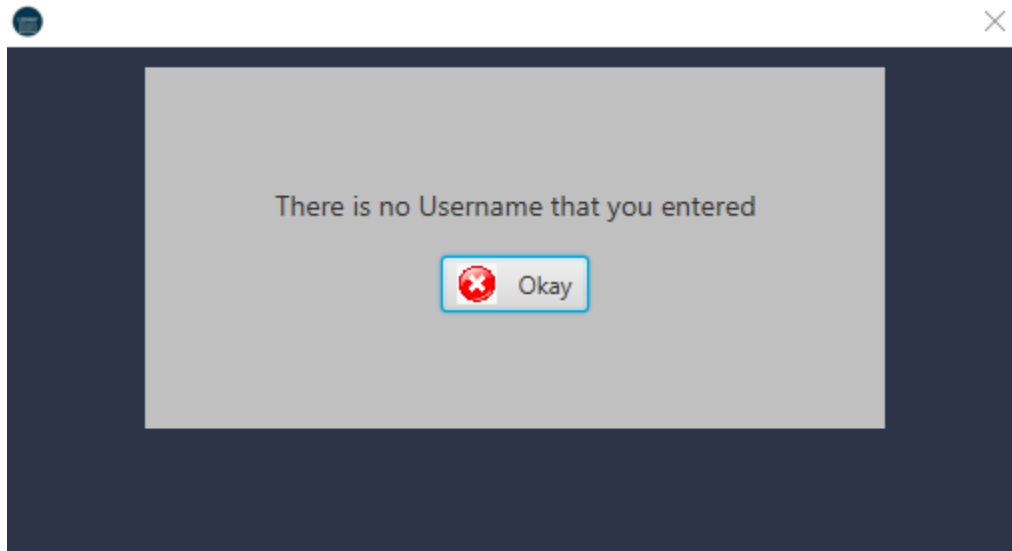


1.6

- 1) 1.4 User enters username
- 2) 1.5 User answers the question asked
- 3) 1.6 If the user gives the correct answer, his password will appear on the screen

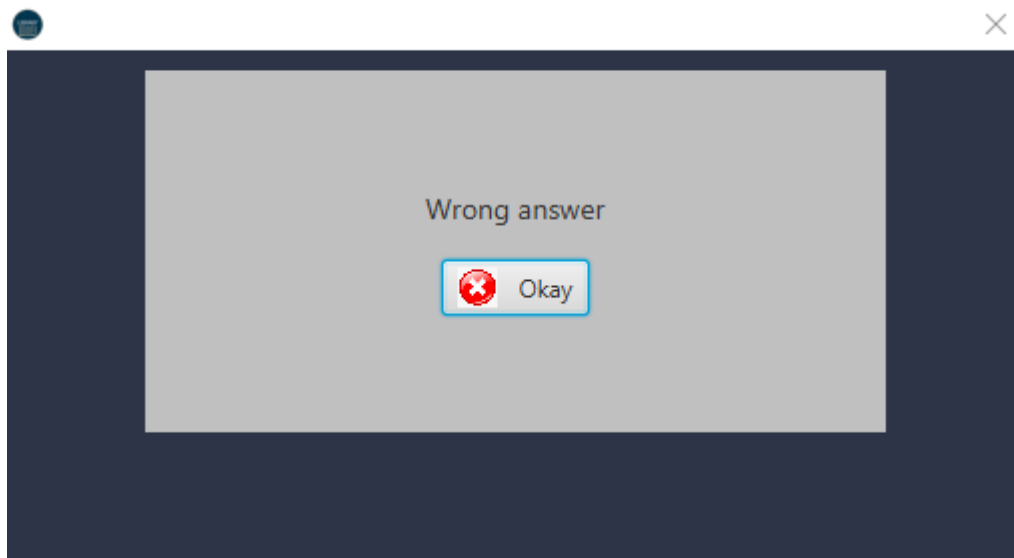
## 3.1 Notifications

### Screenshot



1.7

### Screenshot



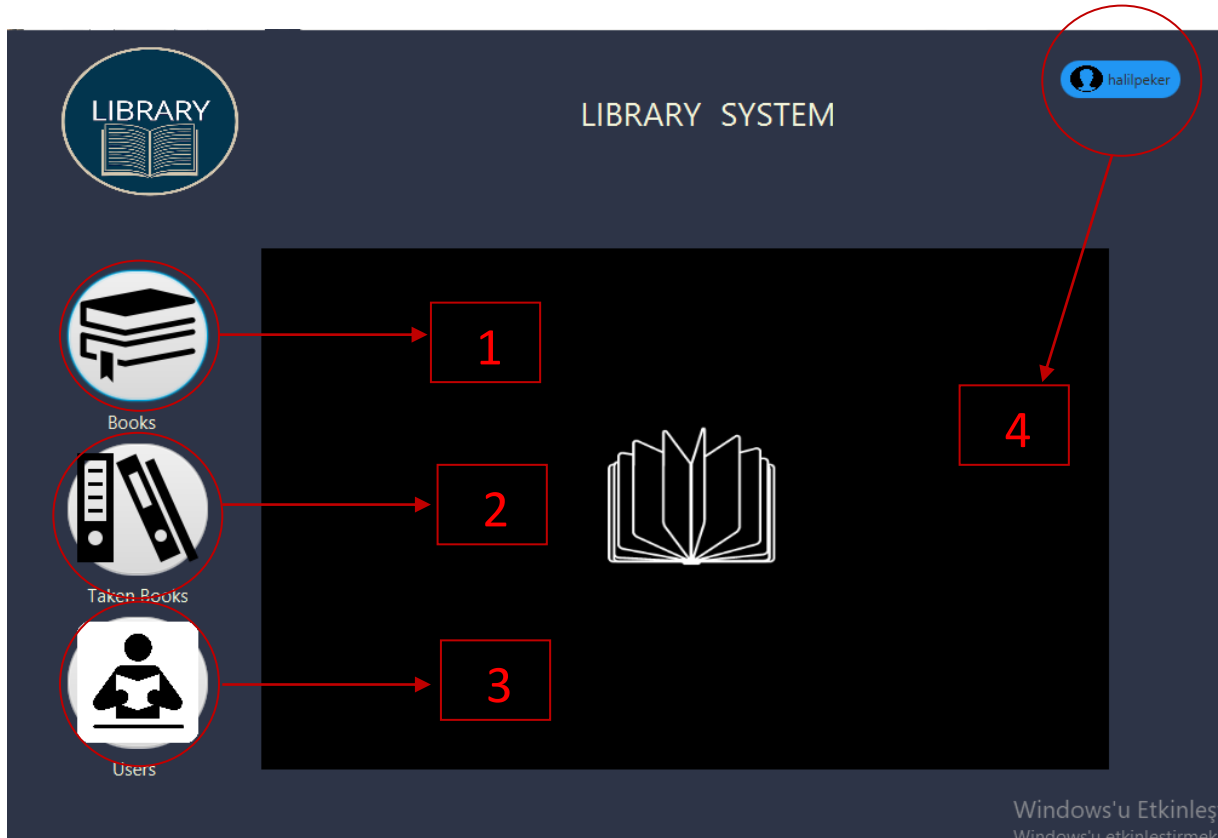
1.8

1.7 wrong Username, 1.8 wrong answer notification.



## 4.Home Page

### Screenshot



1.9

### 4.1 Books Button

User and admin can access all available books here.

### 4.2 Taken Button Page

Only Admin can access all borrowed books here

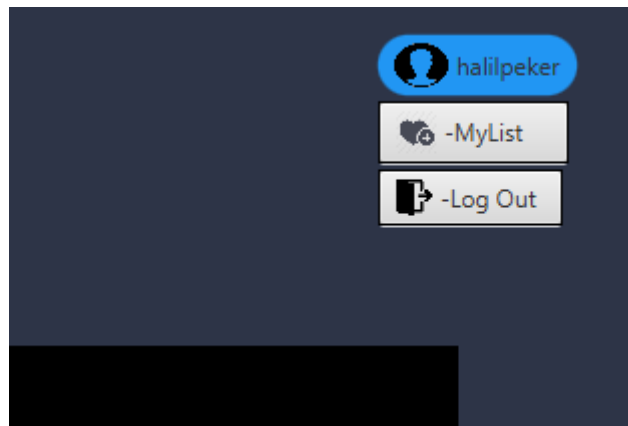
### 4.3 Users Button

Admin can access all users registered in the program here.

## 4.4 User Info Button

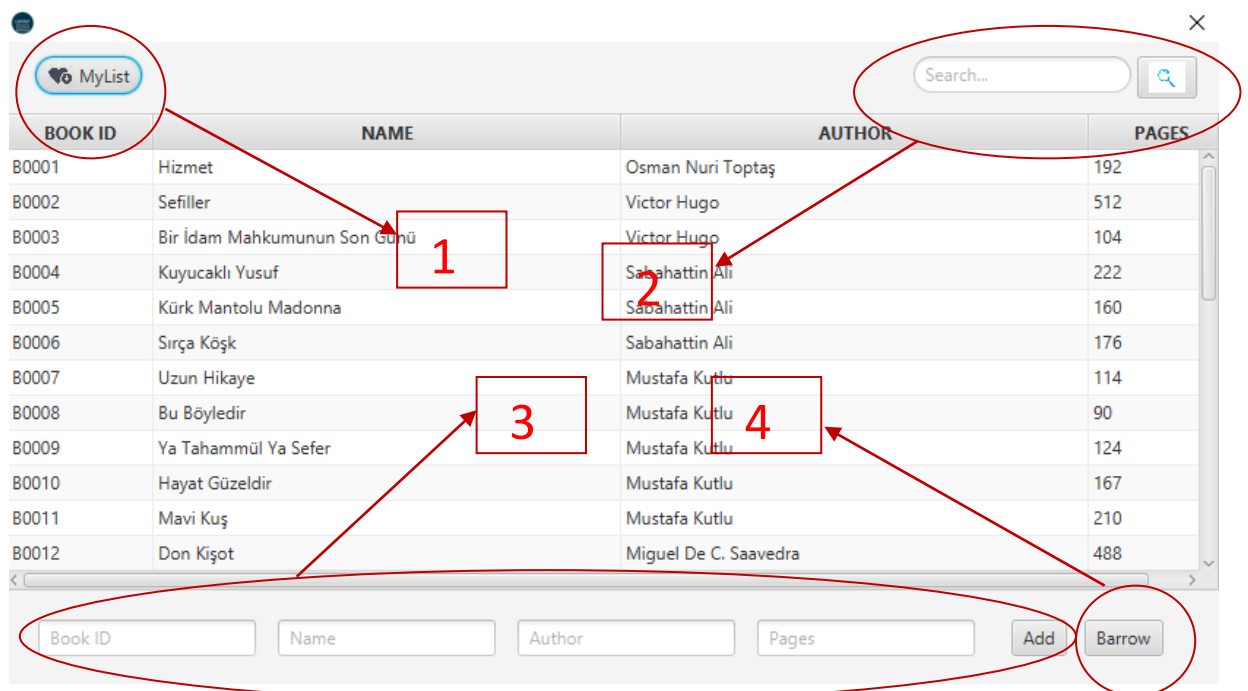
User can access Mylist and exit the program from this section

### Screenshot



2.0

## 5. Books Page



2.1

## 5.1 MyList Button

User can select any book and click the mylist button and list the book.

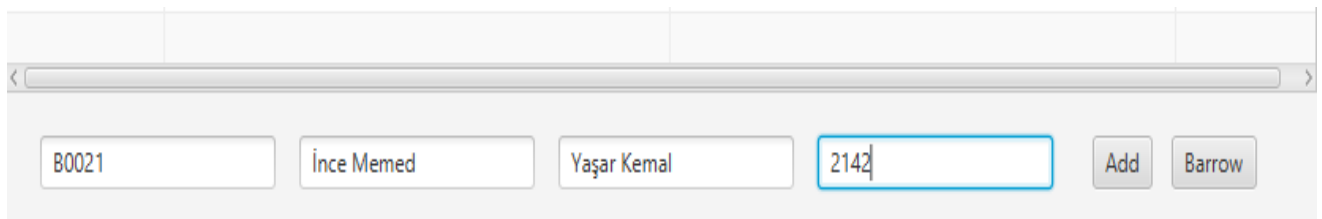
## 5.2 Searching Book Text Field

Users can access any book they want to find by writing here

## 5.3 Adding Book

After the user has entered the desired information in the specified location, the book can be added by pressing the "add" button. You can entered integer value in the page's area. If user or admin enters other values the program won't accept.

### Screenshot



The screenshot shows a web form with four input fields and two buttons. The first field contains 'B0021', the second 'İnce Memed', the third 'Yaşar Kemal', and the fourth '2142'. The 'Add' and 'Barrow' buttons are to the right of the fields.

2.2

## 5.4 Borrowing Book

User and admin can borrow any book of their choice by clicking the "borrow" button.

## 6. Taken Books Page

### Screenshot

Book ID	Book Name	User's Name	Days
B0008	Bu Böyledir	halilpeker	16 DAYS!!!
B0012	Don Kişot	ferhattunç	4 Days
B0023	İnce Memed	Sibelsarı	2 Days
B0025	Fesleğe	Sevde12	1 Days
B0031	Doğal Aile	Ahmetkara	0 Days

Giving Back

2.3

ONLY ADMIN CAN ENTERED THIS SECTION

### 6.1 Searching Taken Book Text Field

Admin can access any Taken books they want to find by writing here.

### 6.2 Giving Back Button

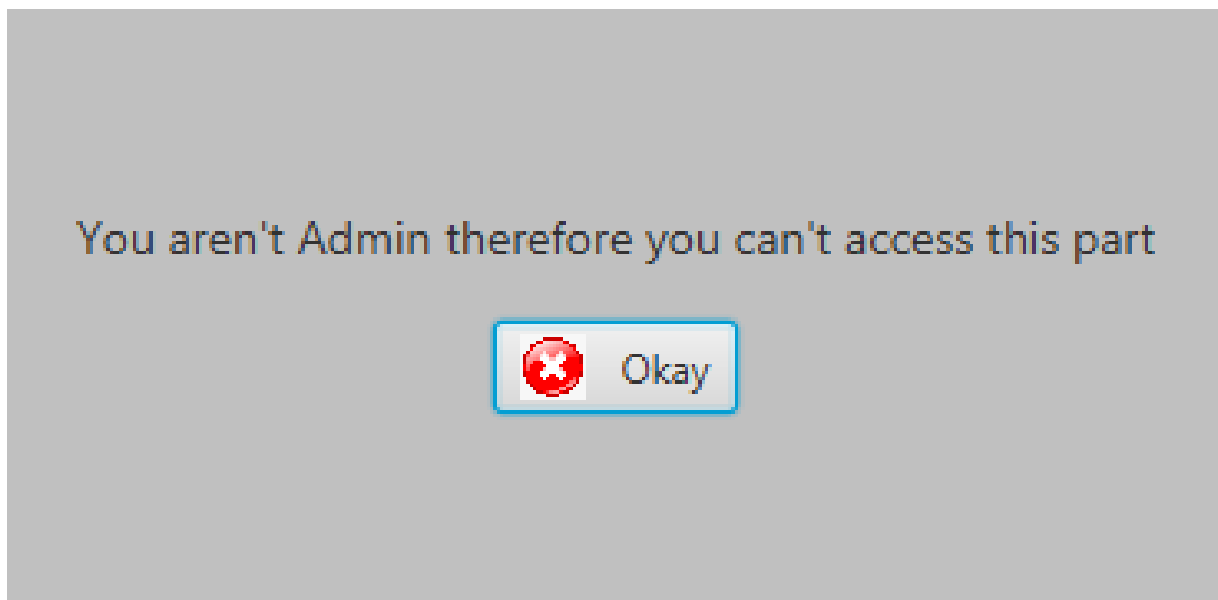
Admin can return the borrowed book by pressing the Giving Back buton.

## 6.3 Timeout notification

If there is a 15-day timeout, "DAYS!!!" writes.

## 6.4 Notification

### Screenshot

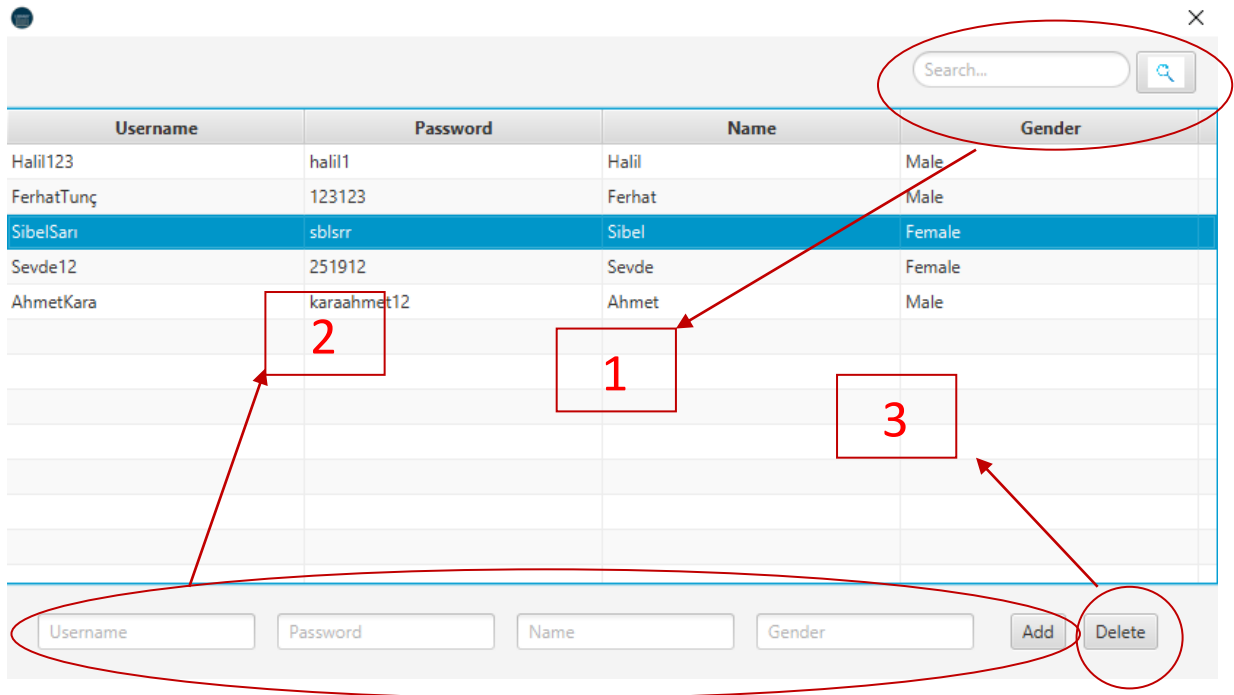


2.3.1

\* Only admin can enter this section. If the users want to enter this section, this part does not open.

## 7. User Page

### Screenshot



2.4

ONLY ADMIN CAN ENTERED THIS SECTION

### 7.1 Searching User Text Field

Users can access any Users they want to find by writing here.

### 7.2 Adding User

After the admin has entered the desired information in the specified location, the USER can be added by click the "add" button.

**FOR ADDİNG;** Username, Password, Name, Gender.

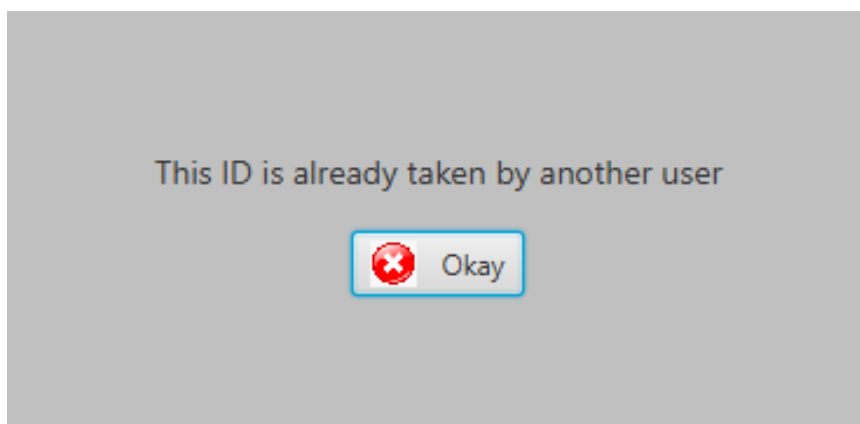
## Screenshot

FarukOnder	141414	Faruk	Male	Add	Delete
------------	--------	-------	------	-----	--------

2.4.1

In this program Letters of the every words can be upper or lower case it doesn't matter. Program is gonna work . For example your username is Halil123 however you entered hAliL123 you can log in when you entered correct password. Both of them is correct.

## Screenshot

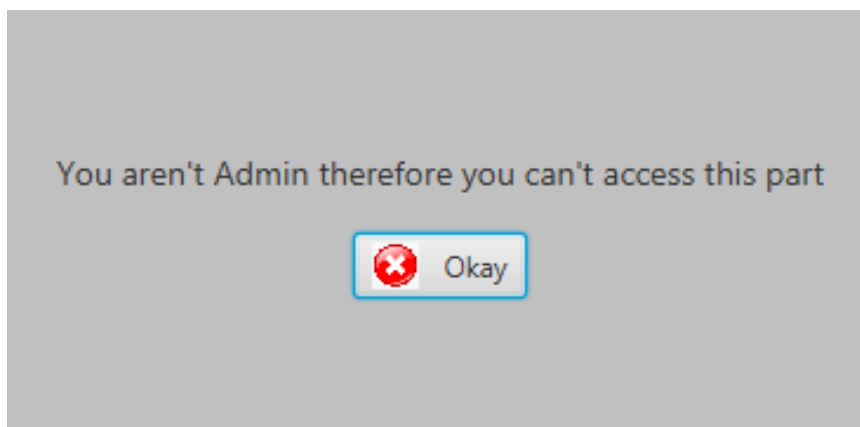


2.4.2

## 7.3 Delete Button

Admin can delete any user by clicking the delete button.

## 7.4 Notification Screenshot



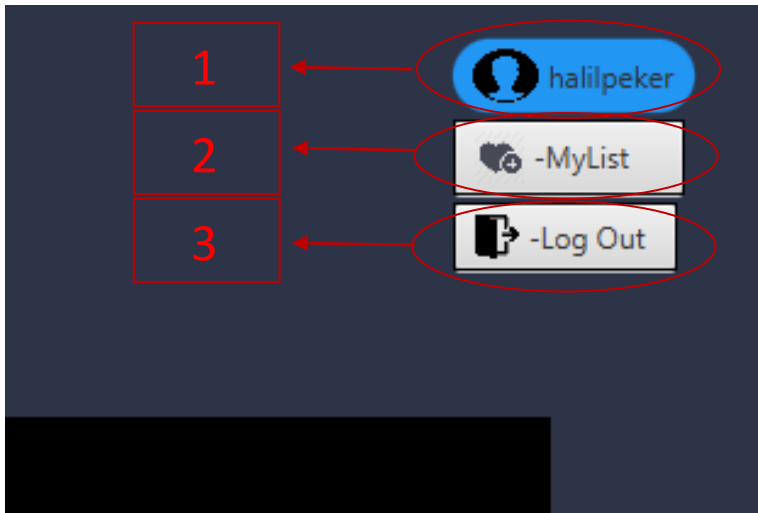
2.3.1

\* Only admin can enter this section. If the users want to enter this section, this part does not open.



## 8. User's Info Button

### Screenshot



2.5

### 8.1 User's Name Info

The name of the user who logs in is written in this button.

### 8.2 Mylist Button

This button opens the user's mylist.

### 8.3 Log Out Button

Users can click this button if they want to log out

## 9. MyList Page

### Screenshot



2.6

User liked books appear in this section. if the users wants to delete a book, they must press the “DELETE” key on the keyboard.

## REFERECES

1. Oracle (Java Tutorials)
2. Flaticon.com
3. The New Boston (Javafx Tutorials)
4. Stackoverflow.com

