T.C.

ALTINBAŞ UNIVERSITY

Faculty of Engineering and Architecture

Software Engineering

Online Library Web Project

Umut Bahadır Kılıç - 200513224
Berke Kadir Yıldırım - 200513233

SWE402

Advisor
HAMEED MUTLAG FARHAN FARHAN

İstanbul, 2025

Online Library Project Documentation

1. Project Summary

The Online Library project is a modern web application that allows users to borrow, read, and manage books. With its user-friendly interface and comprehensive features, the project redefines the digital library experience.

2. Technical Features

2.1 Technologies Used

- HTML5
- CSS3
- JavaScript (ES6+)
- Bootstrap 5.3.0
- LocalStorage (Data Storage)
- C# .Net
- PostgreSQL

2.2 Project Structure

```
project /
⎯⎯ index.html
⎯⎯ login.html
⎯⎯ signup.html
⎯⎯ main_page.html
⎯⎯ books.html
⎯⎯ buy.html
⎯⎯ profile.html
⎯⎯ css/
│       └── style.css
└── js/
    └── main.js
```

3. Page and Feature Details

3.1 Home Page (index.html)

- Welcome screen
- Login and registration redirects
- Responsive design
- Modern and user-friendly interface

3.2 Login Page (login.html)

- Login with email and password
- Form validation
- Password visibility control
- Error messages
- Redirect to the registration page

3.3 Registration Page (signup.html)

- User information form
- Form validation
- Password visibility control
- Error messages
- Redirect to the login page

3.4 Main Page (main_page.html)

- Featured books
- Responsive grid structure
- Redirect to book detail page

3.5 Books Page (books.html)

- List of all books
- Search and filtering
- Pagination
- Book cards
- Borrow and read options

3.6 Cart Page (buy.html)

- List of books in the cart
- Cancel option
- Complete transaction
- Empty cart status
- Responsive design

3.7 Profile Page (profile.html)

- User information
- Borrowed books
- Return books
- Statistics

4. Features and Functions

4.1 User Management

- Sign up
- Log in

- Log out
- Profile management
- Session control

4.2 Book Operations

- Search books
- Borrow books
- Read online
- Return books
- Cart management

4.3 Data Management

- Use of LocalStorage
- Storage of cart data
- Storage of user information
- Tracking borrowed books

4.4 UI/UX Features

- Responsive design
- Animations
- Notification system
- User feedback
- Modern and clean interface

5. Security Features

- Form validation
- Secure data storage
- Session management
- Error handling

6. Performance Optimizations

- Lazy loading
- Optimized images
- Minimal CSS and JavaScript
- Fast page loading

7. Future Developments

- Email notifications
- User reviews and ratings
- Advanced search filters
- Book categories
- Multi-language support