



(Company No. 101067-P)

الجامعة الإسلامية العالمية ماليزيا  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA  
يُونِيسَيْتِي إِسْلَامُ، اِنْتَارَابَغْسَا مِلْدِسِيَا

*Garden of Knowledge and Virtue*

**PREMIER INTERNATIONAL ISLAMIC RESEARCH UNIVERSITY**

## WEB APPLICATION DEVELOPMENT

**Sem 2 2019/2020**

**Proposal: Library Web Application**

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## 1. Introduction of the web application

Our web application project is a library system for IIUM. a project that manages and stores book information electronically. Our system is from the library member's perspective where the user will be able to perform the basic set of library features such as borrow, search, and return books to the library. This system can make it easier for the librarian to keep track of the books and journals that have been borrowed by library members.

## 2. Objectives of the web application

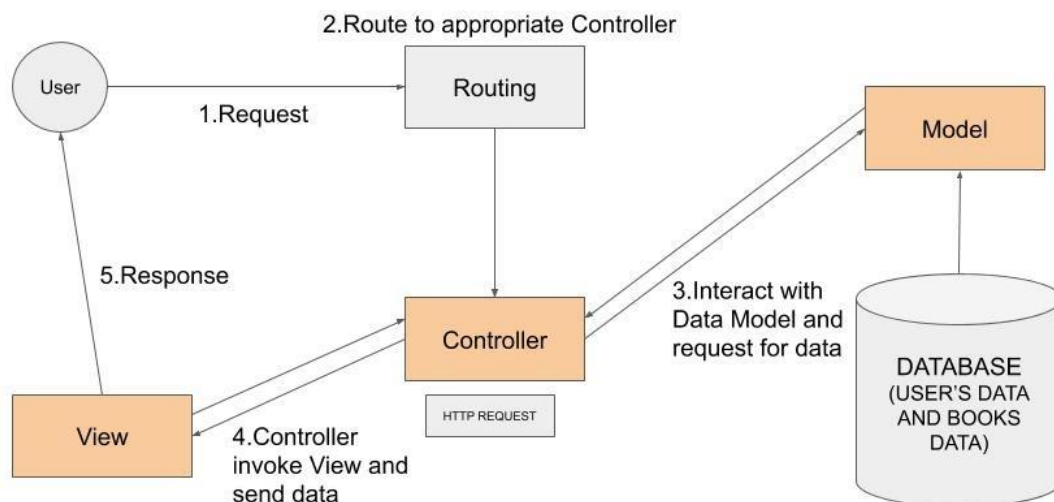
1. A user-friendly library system to allow users to borrow and return books from a library.
2. Ease for the librarian to keep track of the books and save consuming time.
3. It allows for the users to check either the books are available or not.
4. Making the easiest way for the users to borrow their as well return by our web application.

## 3. Features and functionalities of the web application

- **Create Account:** It allows the new user to create a new account in our library system. Users need to fill personal information such as name, phone number, username, matric-no, etc.
- **Password recovering:** Registered members can recover their password in case they forgot or they want to update it.
- **Login:** after the user has keyed in their username and password, they need to click the login button. If the password matches the username, then it will go to the main menu.
- **User Sign Up:** When the user is new to the system and wants to become a part, that wants to create a new account and sign up to the system.
- **Borrow Book:** a list of books and periodicals available in the library.
- **Return Book:** To return a book, the user needs to click the return button next to it.
- **Search Book:** The user can search a book based on book id, or by author name.
- **Display account:** Display the user's personal details and information.

- **Logout:** the system logs the user out of the system and takes to the login page again.
- **Wrong Password/ Username:** Showing an error message if the password or the username incorrect so the username and password should be matched.
- **Showing Messages Once You Return Your Book as well as if you borrow it.**
- **A Student can issue a book**

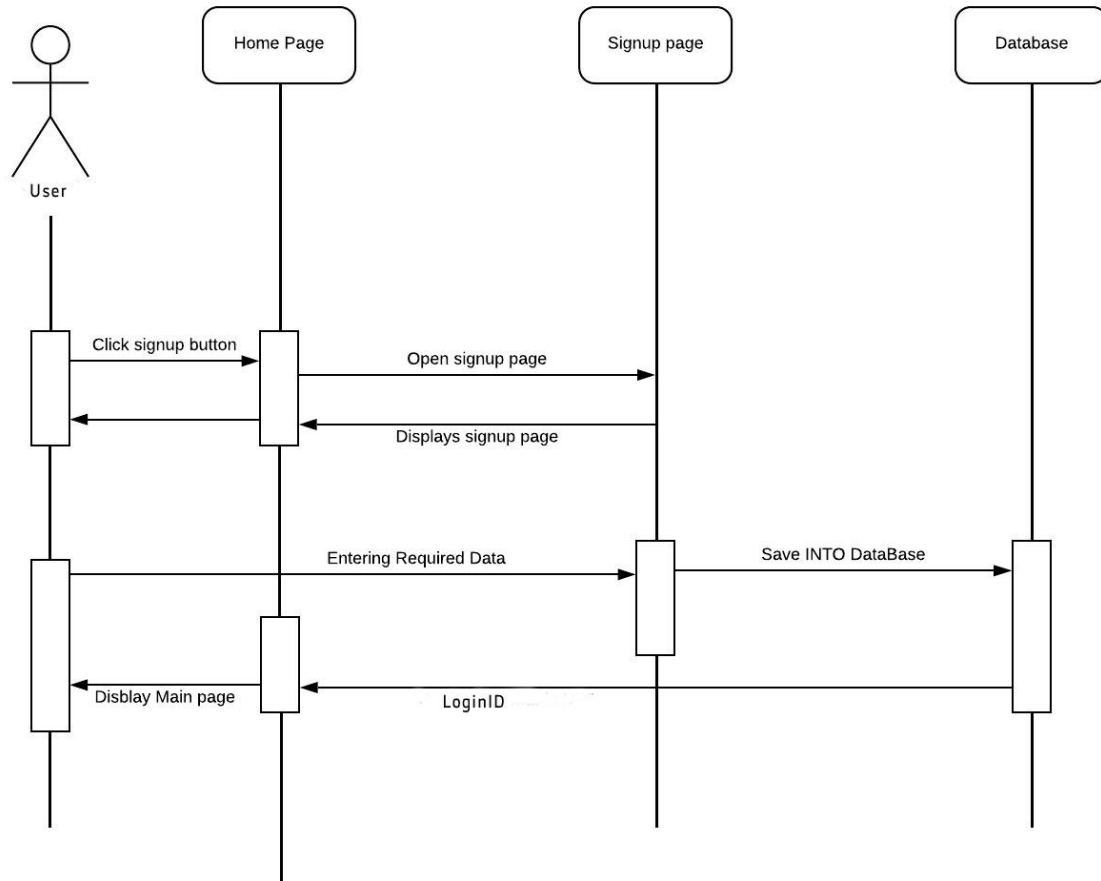
#### 4. Properly define the views, controllers, and models with a diagram.

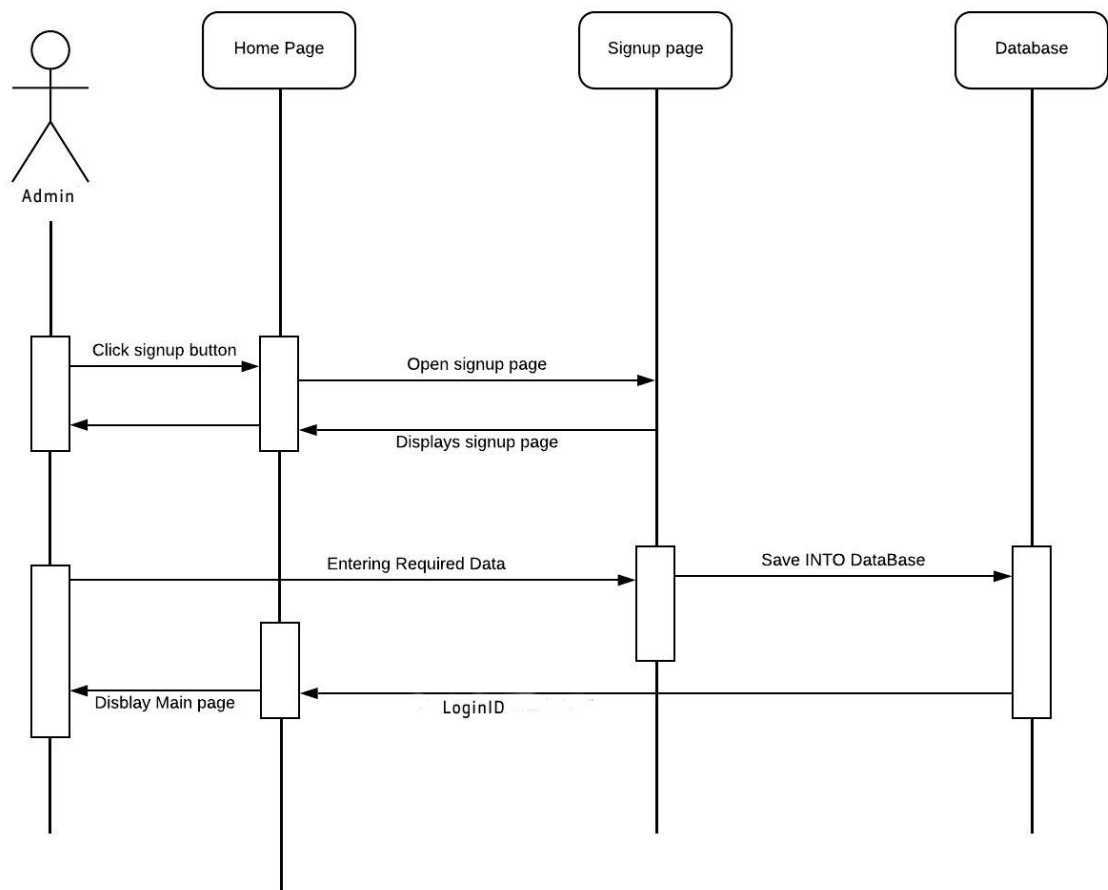


- **User:** the users will see our web application and send their request (registration data, login data or borrow/return the book) through the controller.
- **Controllers:** the controller will get the user's request and send it to the model. Then will take the data comes from model to send it to the view.
- **Models:** will take the requested data from the controller and request needed data from the database, and then send back the needed data to the controller.
- **Views:** will take the data from the controller and display it to the user.

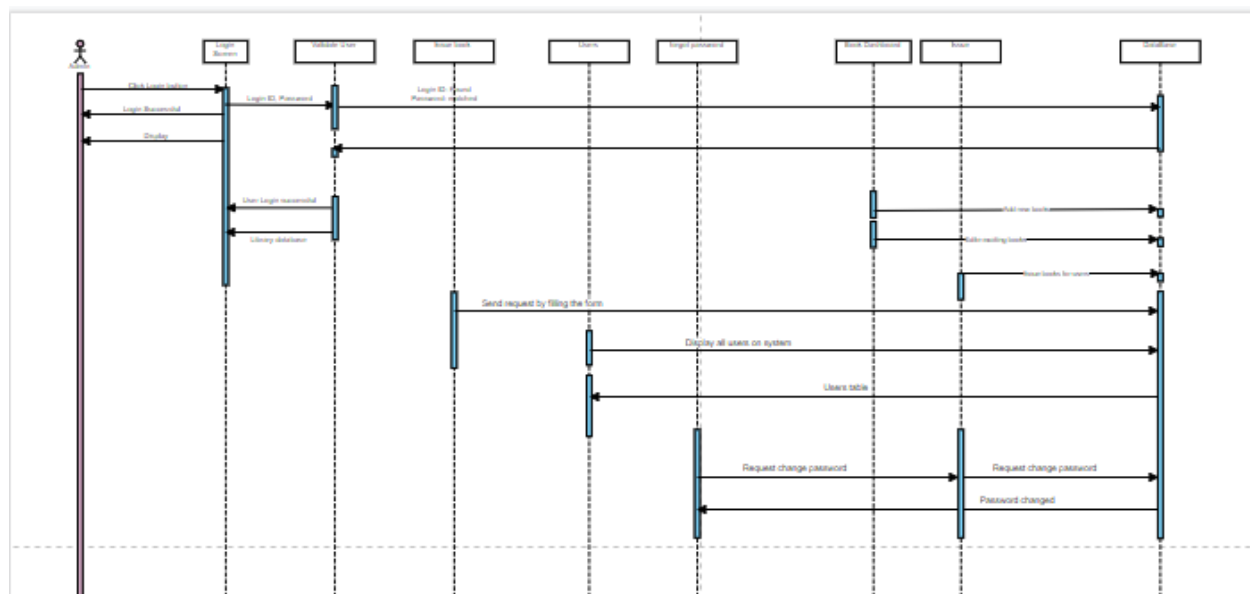
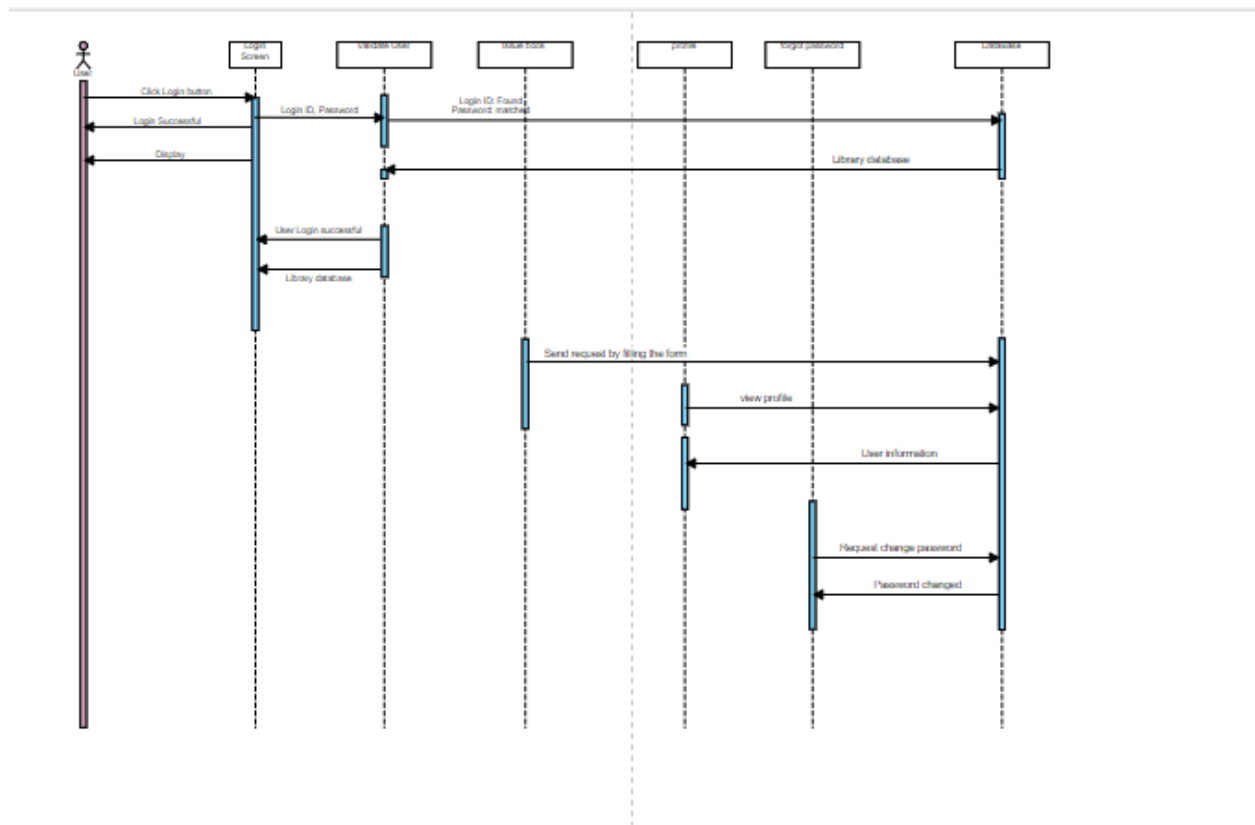
## 5. A sequence diagram to represent the interaction of the web application.

- Sign up for user and admin

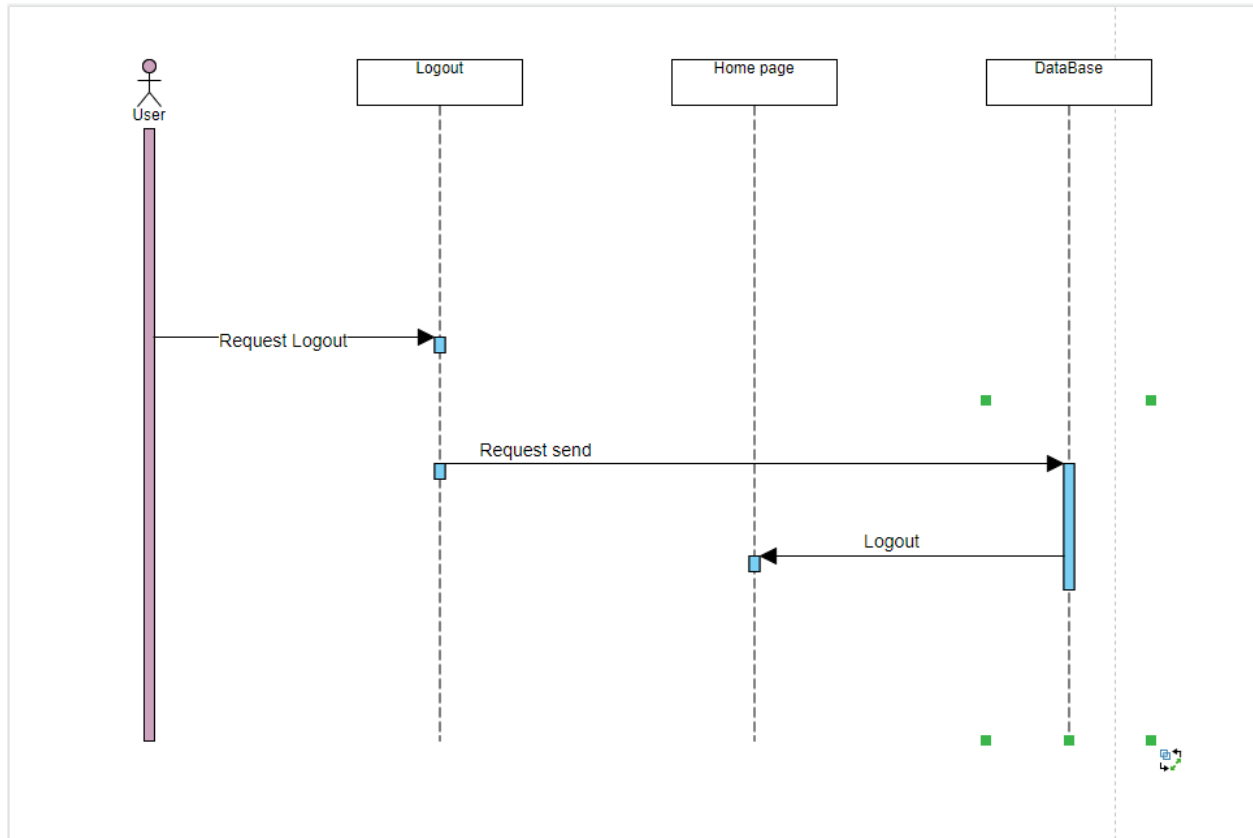




- User and admin user interface



- **Logout interface:**



## 6. References

- <https://www.tutorialsteacher.com/mvc/mvc-architecture>
- <https://app.lucidchart.com/documents>
- <https://www.tutorialsteacher.com/mvc/create-first-asp.net-mvc-application>
- <https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-mvc-app/?view=aspnetcore-3.1>