

# Assignment2\_BIT302\_I Kadek Bagus Paradhita Utama(E1700866)\_I Nengah Wahyudi Setiawan(E1700868)

*by* Wahyudi Setiawan

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**Word count:** 1054

**Character count:** 5770

**BIT302**  
**SOFTWARE ENGINEERING**  
**ASSIGNMENT 2**



**Project Title:**  
**Information System for MHS**

**Prepared By:**  
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## **Introduction**

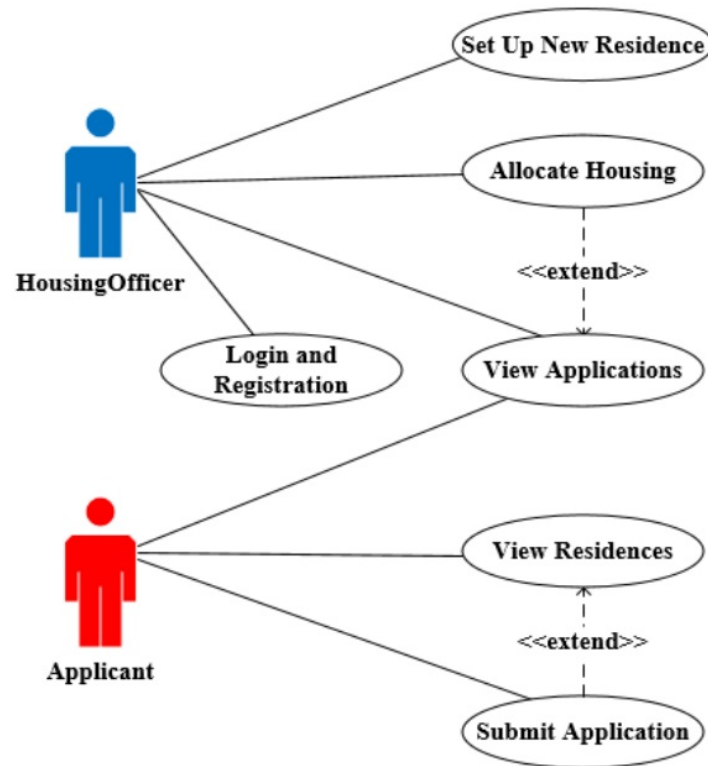
Big cities do offer a variety of business or work opportunities and special tourist attractions to explore. Starting from shopping centers, amusement parks, education centers and rows of office buildings with job vacancies offered, all can be found in big cities easily. However, all this luxury is also accompanied by expensive living costs, especially in the residential sector, which will certainly be a big problem for young people who have to live independently, such as students, recent graduates and job seekers.

Proposals to overcome the housing crisis in big cities have actually been proposed in the United States, Canada and Hong Kong in a variety of different ways. Meanwhile, young people in Kuala Lumpur also face a similar problem. Therefore, the Kuala Lumpur City Hall (DBKL) has proposed a scheme to help young people to rent affordable accommodations called Micro Houses.

However, maybe not too many people know about this Micro House. Therefore, in this project we are considering creating an information system for MHS (Micro Housing System) for DBKL. Our team has decided to plan and build an information system where home seekers themselves will be able to search and view a list of Micro Houses that are available along with the facilities offered.

Use

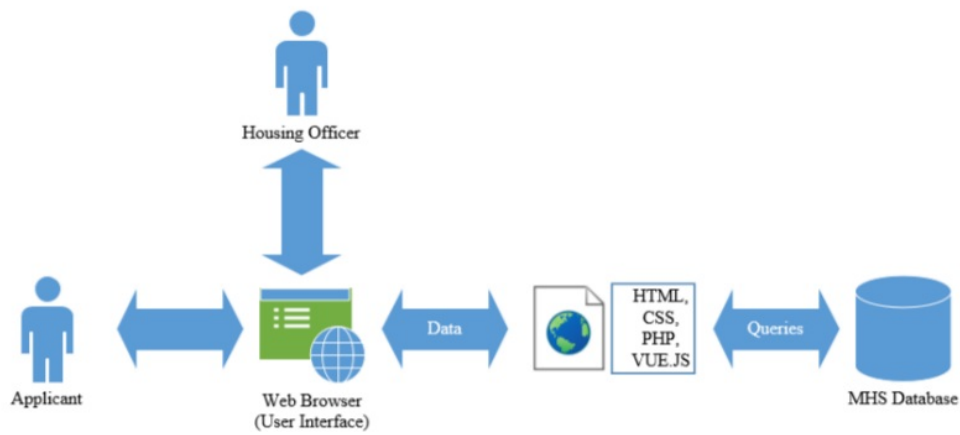
Case  
Diagram



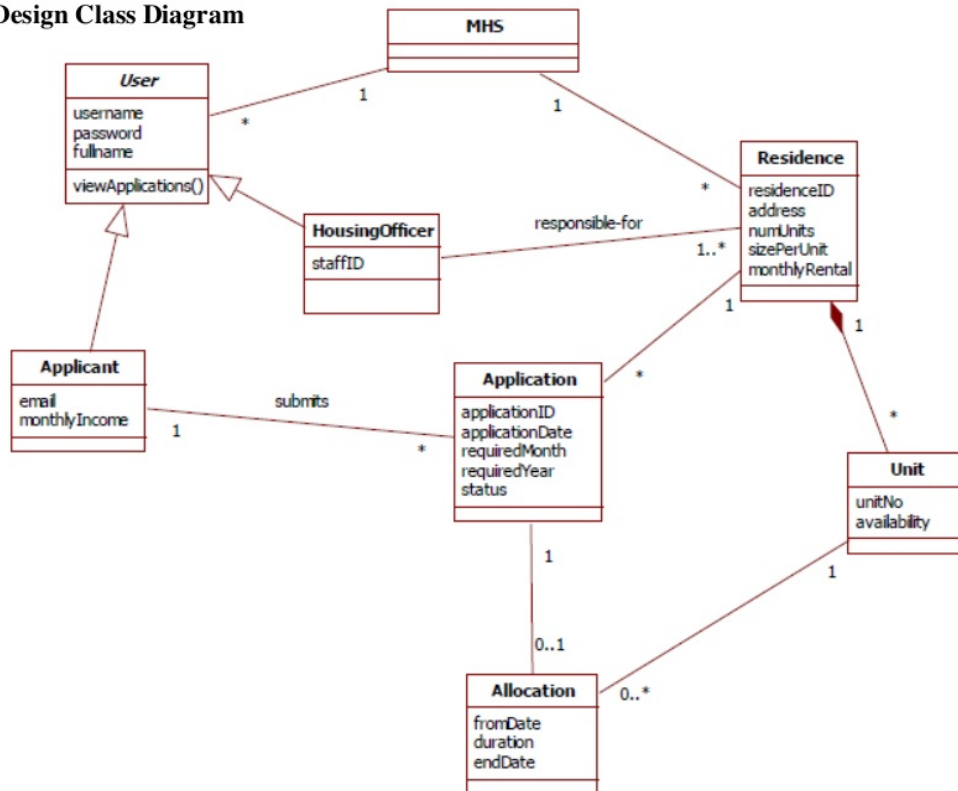
**Note:**

We added the Login and Register to the use case diagram because the Micro Housing System requires a Login and Register page to log in to MHS and register to MHS.

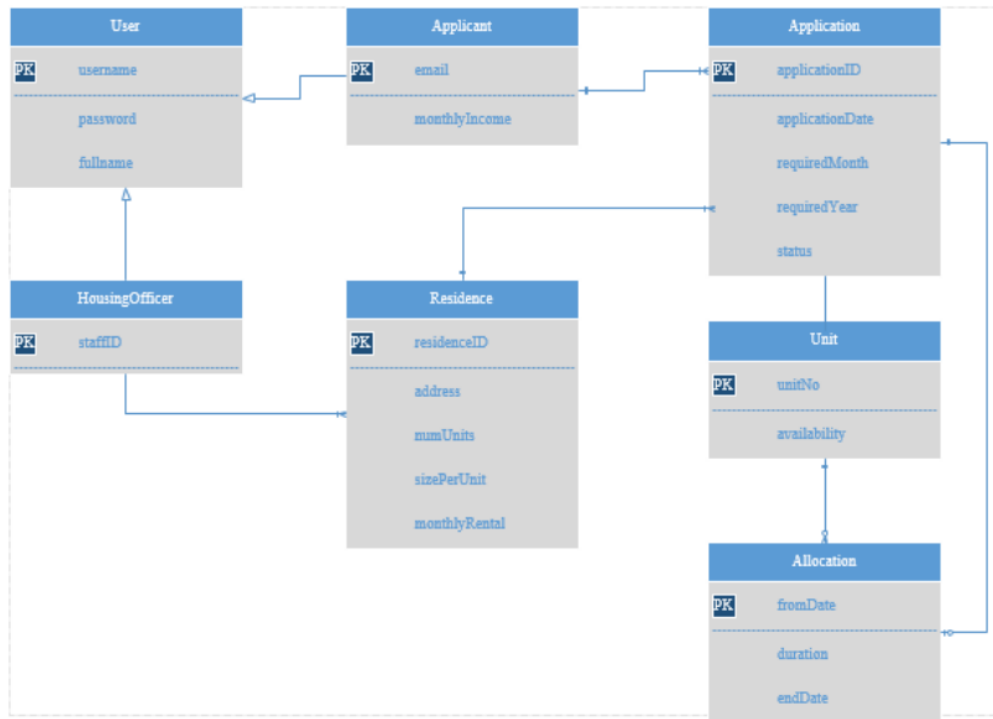
## Architectural Design



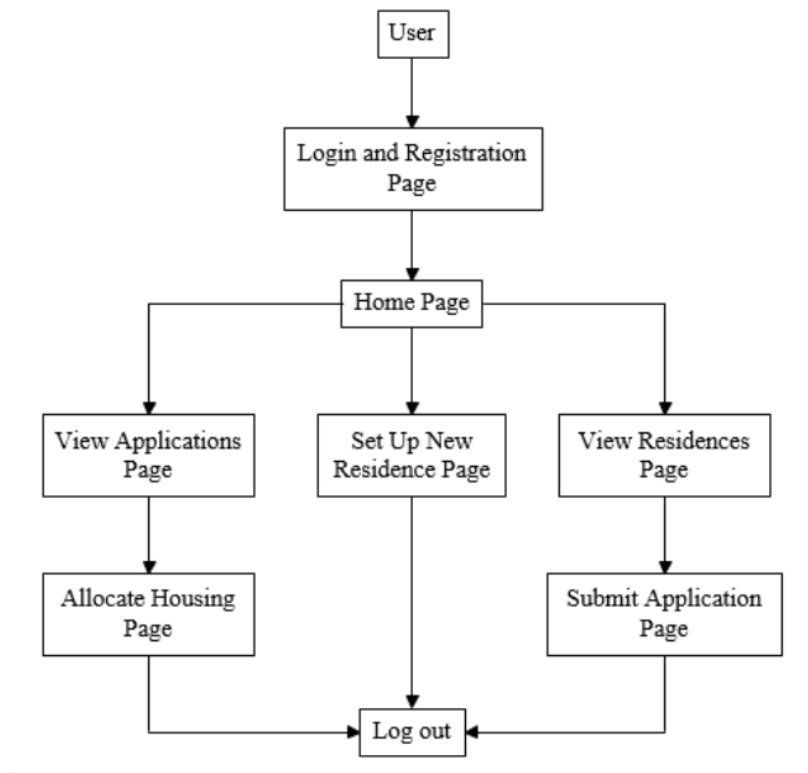
## Design Class Diagram



## ERD



## Site Map





## Generic User Experience/Wireframe

### 1. Login and Registration Page

\*background

#### Login

Username

Password

User type  
☐ Applicant  
☐ Housing Officer

Login

#### Register

Username

Password

Fullname

Email

User type  
☐ Applicant  
☐ Housing Officer

Register

### 2. Home Page (Housing Officer)

\*background

HOME SET UP RESIDENCE VIEW APPLICATION ALLOCATE HOUSING LOGOUT

Welcome (Username)

\*Housing Officer Personal Information

3. Home Page (Applicant)

\*background

HOMEVIEW RESIDANCEVIEW APPLICATIONLOGOUT

Welcome (Username)

\*Applicant information

4. Set Up New Residence Page

\*background

HOMESET UP RESIDENCEVIEW APPLICATIONALLOCATE HOUSINGLOGOUT

SET UP NEW RESIDENCE

Residence ID

Address

Unit Available

Size/unit

Monthly Rental

Set Up New Residence

## 5. View Residences Page

\*background

HOME VIEW RESIDANCE VIEW APPLICATION LOGOUT

### VIEW RESIDENCE

\*Resident list

\*Resident list

\*Resident list

\*Resident list

## 6. Submit Application Page

\*background

HOME VIEW RESIDANCE VIEW APPLICATION LOGOUT

### SUBMIT APPLICANT

Username

Password

Fullname

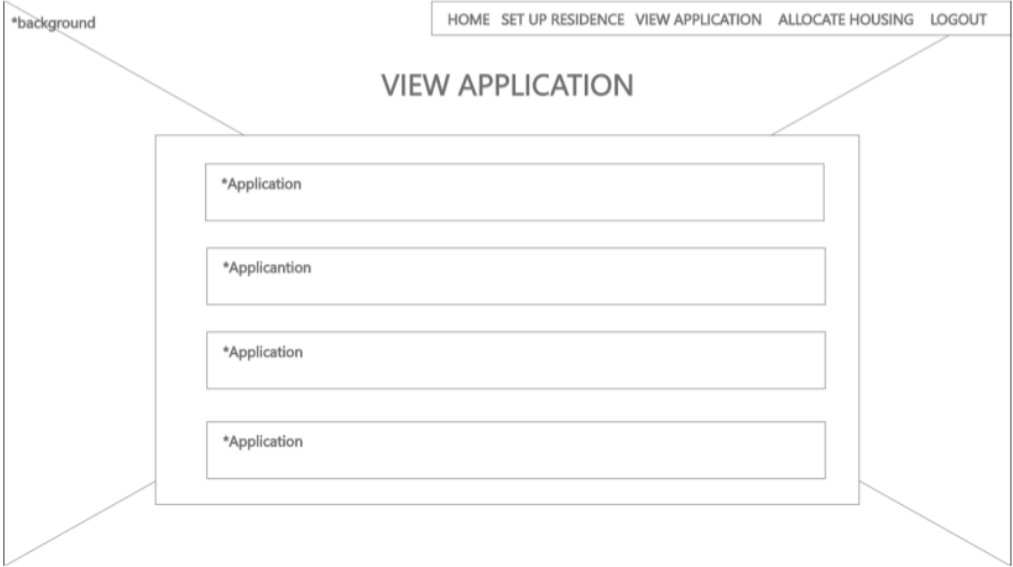
Email

Monthly Income

Month and Year

Submit

7. View Applications Page

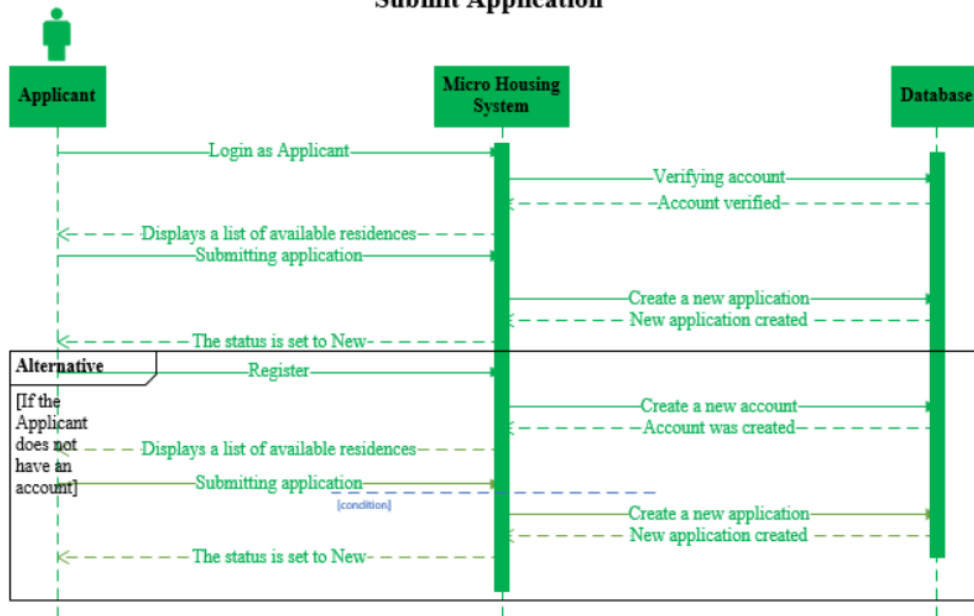


8. Allocate Housing Page

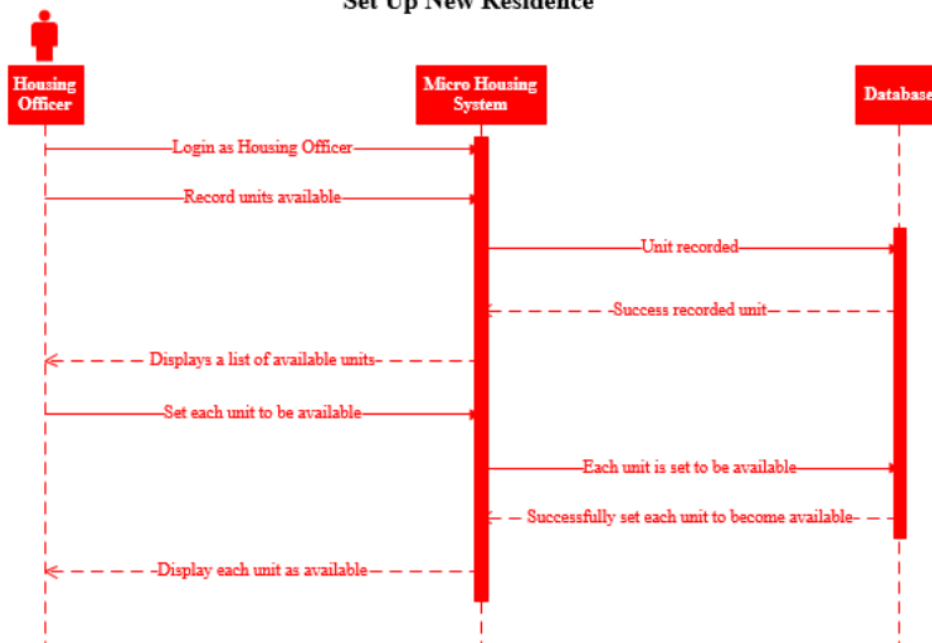


## System Sequence Diagram + Contracts

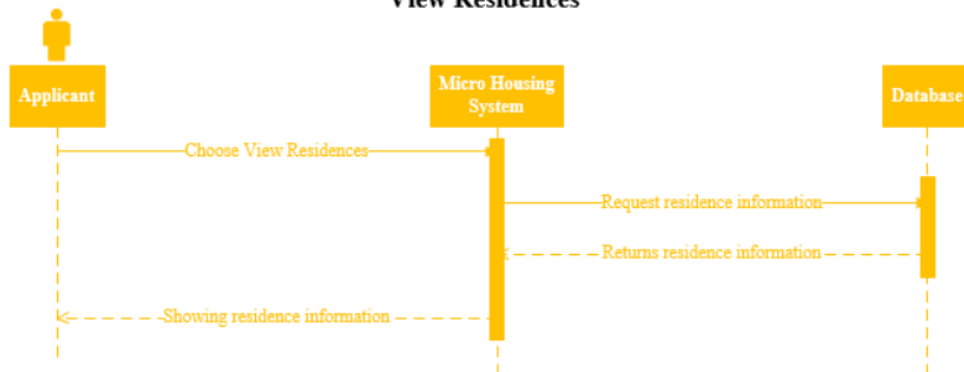
### Submit Application



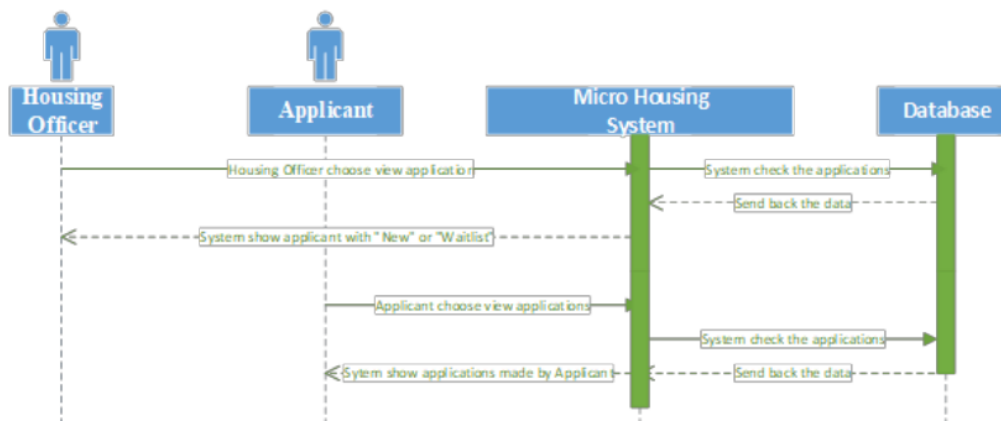
### Set Up New Residence



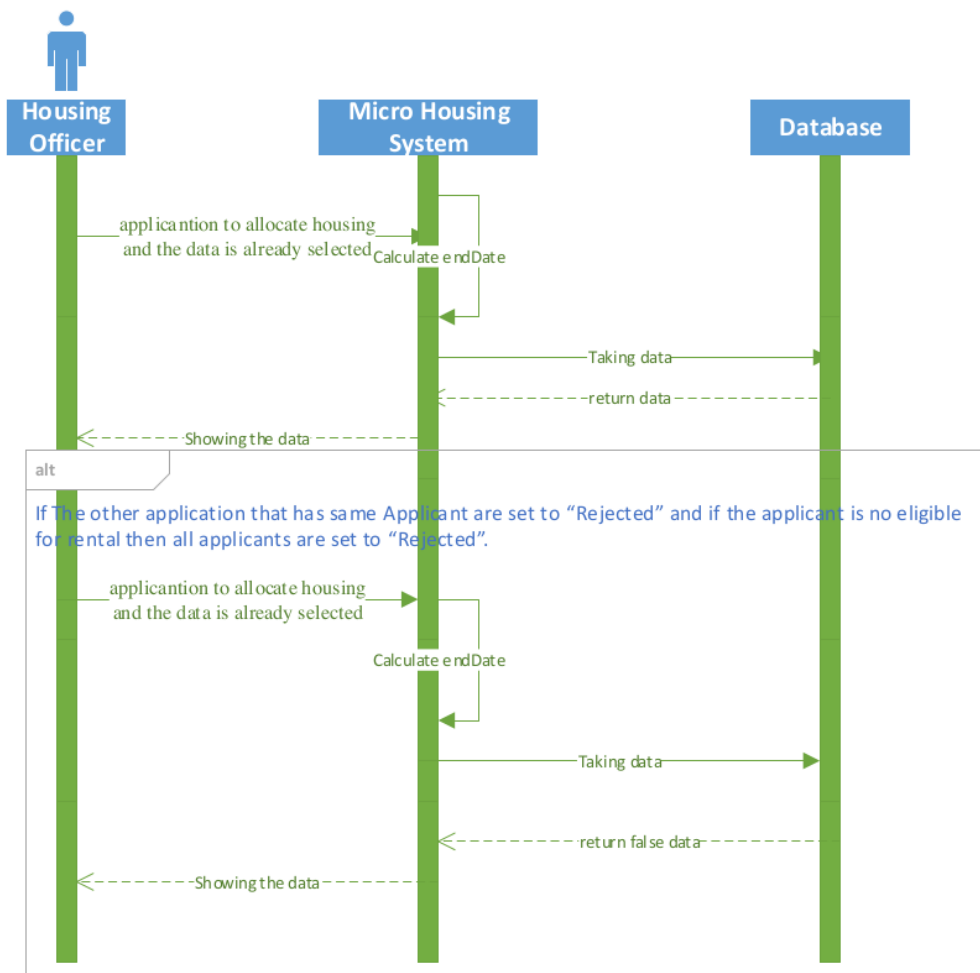
### View Residences



### View Application



## Allocate Housing



## Contracts

### Login and Registration – Prepared by Bagus and Wahyudi

Operation	Cross Reference	Precondition	Post condition
login()	Use Case – Login and Registration	The user wants to enter the website.	The home page is displayed.
register()	Use Case – Login and Registration	The user wants to enter the website.	The home page is displayed.

**Set Up New Residence – Prepared by Bagus**

Operation	Cross Reference	Precondition	Post condition
recordUnitsAvailable()	Use Case – Set Up New Residence	Housing Officer want to record the number and information of each available unit.	A list of available units is displayed.
setUnitAvailable()	Use Case – Set Up New Residence	Housing Officer want to set the availability of each unit to be "available".	The availability of each unit is displayed as "available".

**View Residences – Prepared by Bagus**

Operation	Cross Reference	Precondition	Post condition
chooseViewResidences()	Use Case – View Residences	Applicant wants to see information about available housing.	Residence information is displayed.

**Submit Application – Prepared by Bagus**

Operation	Cross Reference	Precondition	Post condition
applicantLogin()	Use Case – Submit Application	Applicant wants to submit an application for a unit.	Displays a list of available residences.
submittingApplication()	Use Case – Submit Application	Applicant wants to send the application after	The status is set to "New".



		choosing a residence.	
register()	Use Case – Submit Application	Applicant wants to submit an application for a unit.	Displays a list of available residences.

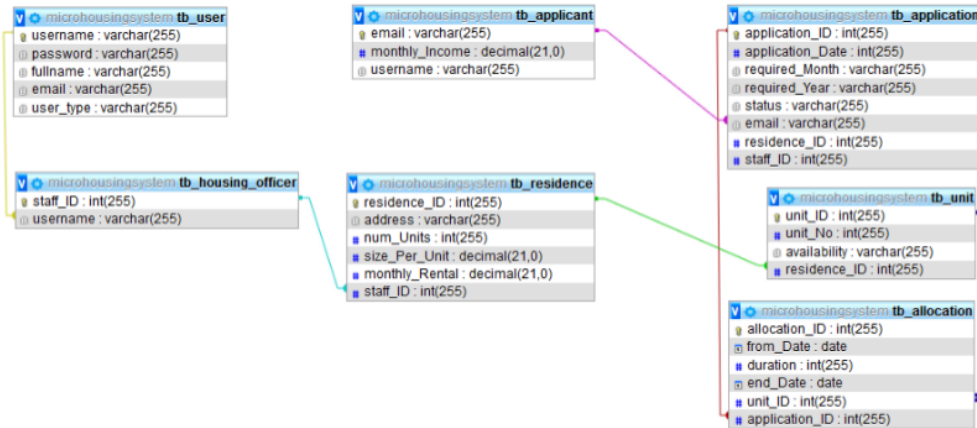
#### View Application – prepared by Wahyudi

Operation	Cross Reference	Precondition	Post condition
chooseViewApplication()	Use Case – choose view application	Housing Officer want to view application	Displays application with status “New” and “Waitlist”
viewApplication()	Use Case – view application	Applicant want to view the application	Display application

#### Allocating Housing – prepared by Wahyudi

Operation	Cross Reference	Precondition	Post condition
allocateHousing()	Use Case – select Applicant to allocate Housing	Housing Officer allocate data and already selected	Showing the data to Housing Officer
allocateHousing()	Use Case – select Applicant to allocate Housing (alternative)	Housing Officer allocate data and already selected	The Housing Officer does not use the data because it is not eligible

## Database Design (Data Dictionary)



## Identification of The Use Cases to be Developed by Member

Use Case	Team Member
Login and Registration	Bagus and Wahyudi
Set up New Residence	Bagus
View Residence	Bagus
Submit Application	Bagus and Wahyudi
View Application	Wahyudi
Allocating Housing	Wahyudi

## Test Objectives

The objectives of this test are to check the website to run normally and it run according to the use case. We also check the website function to work properly and the user interface is easy to use.

## Test Plan & Method & Automated Testing Tool

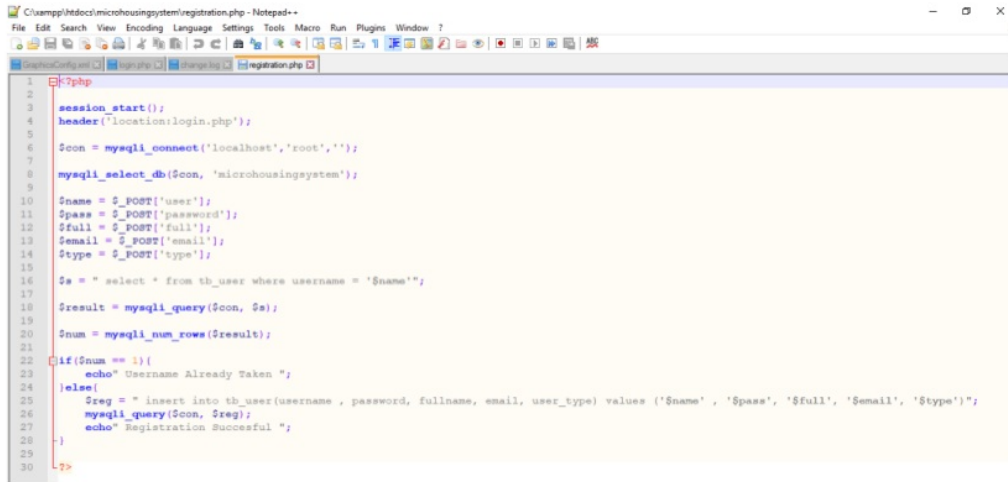
In this test we are going to test the login and register page, first we are going to input the username, password, Fullname, and Email then register as Applicant or Housing Officer. After registered then we need to login by input the username, password, and choose the User Type that you already created. We are using Selenium testing tool to test the website to make sure that there is no error or bug in the website.

## Test Results

- **Unit and Integration Testing**

We are using the Selenium program to test the code:

### 1. Registration



```
1 <?php
2
3 session_start();
4 header('Location:login.php');
5
6 $con = mysqli_connect('localhost','root','');
7
8 mysqli_select_db($con, 'microhousingssystem');
9
10 $name = $_POST['user'];
11 $pass = $_POST['password'];
12 $full = $_POST['full'];
13 $email = $_POST['email'];
14 $type = $_POST['type'];
15
16 $s = " select * from tb_user where username = '$name'";
17
18 $result = mysqli_query($con, $s);
19
20 $num = mysqli_num_rows($result);
21
22 if($num == 1){
23     echo " Username Already Taken ";
24 }else{
25     $reg = " insert into tb_user(username , password, fullname, email, user_type) values ('$name' , '$pass' , '$full' , '$email' , '$type')";
26     mysqli_query($con, $reg);
27     echo " Registration Successful ";
28 }
29
30
```

### Selenium Test Result:

Log	Reference	
Running 'Register'		
1. open on http://localhost/microhousingssystem/login.php	OK	07:45:09
2. setWindowSize on 607x726	OK	07:45:10
3. click on css= login-right .form-group:nth-child(1) > form-control	OK	07:45:10
4. click on css= login-right .form-group:nth-child(1) > form-control	OK	07:45:11
5. type on css= login-right .form-group:nth-child(1) > form-control with value Wahyu	OK	07:45:11
6. click on css= login-right .form-group:nth-child(2) > form-control	OK	07:45:12
7. type on css= login-right .form-group:nth-child(2) > form-control with value 123	OK	07:45:12
8. click on name=full	OK	07:45:12
9. type on name=full with value Wahyu8 Bagus	OK	07:45:13
10. click on name=email	OK	07:45:13
11. type on name=email with value wahyud8agus90@gmail.com	OK	07:45:13
12. click on css= form-group:nth-child(5) > input:nth-child(5)	OK	07:45:14
13. click on css= btn:nth-child(6)	OK	07:45:14
'Register' completed successfully		07:45:14

## 2. Login

```
C:\xampp\htdocs\microhousingystem\login.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
BootstrapConfigurator login.php change.log
1 <html>
2 <head>
3 <title> User Login and Registration </title>
4 <link rel="stylesheet" type="text/css" href="style.css">
5 <link rel="stylesheet" type="text/css" href="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/css/bootstrap.min.css">
6 </head>
7 <body>
8
9 <div class="container">
10 <div class="login-box">
11 <div class="row">
12 <div class="col-md-6 login-left">
13 <h2> Login </h2>
14 <form action="validation.php" method="post">
15 <div class="form-group">
16 <label>Username</label>
17 <input type="text" name="user" class="form-control" required>
18 </div>
19 <div class="form-group">
20 <label>Password</label>
21 <input type="password" name="password" class="form-control" required>
22 </div>
23 <div class="form-group">
24 <label>User Type</label><br>
25 <input type="radio" name="type" value="applicant"> Applicant<br>
26 <input type="radio" name="type" value="housing officer"> Housing Officer<br>
27 </div>
28 <button type="submit" class="btn btn-primary"> Login </button>
29 </form>
30 </div>
31
32 <div class="col-md-6 login-right">
33 <h2> Register </h2>
34 <form action="registration.php" method="post">
```

### Selenium Test Result:

Log	Reference
Running 'Login'	07:42:11
1. open on http://localhost/microhousingystem/login.php OK	07:42:12
2. setWindowSize on 697x728 OK	07:42:12
3. click on name=user OK	07:42:12
4. type on name=user with value User1 OK	07:42:13
5. click on name=password OK	07:42:13
6. type on name=password with value 12345 OK	07:42:14
7. click on name=type OK	07:42:14
8. click on css= btn:nth-child(4) OK	07:42:14
'Login' completed successfully	07:42:14

## 3. Logout

```
C:\xampp\htdocs\microhousingystem\logout.php - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
BootstrapConfigurator login.php change.log registration.php logout.php
1 <?php
2
3 session_start();
4 session_destroy();
5
6 header('location:login.php');
7
8 >
```

### Selenium Test Result:

Log	Reference
Running 'Logout'	08:33:55
1. open on http://localhost/microhousingystem/login.php OK	08:33:56
2. setWindowSize on 697x728 OK	08:33:56
3. click on name=user OK	08:33:56
4. type on name=user with value User1 OK	08:33:57
5. click on name=password OK	08:33:58
6. type on name=password with value 123455 OK	08:33:58
7. click on css= login-left form-group:nth-child(3) OK	08:33:58
8. click on name=type OK	08:33:59
9. click on css= btn:nth-child(4) OK	08:33:59
10. click on linkText=LOGOUT OK	08:33:59
'Logout' completed successfully	08:34:00

- **System Testing**

### Manual Testing

1. Input Username, Password, Fullname, Email, and chose User Type then Click Register to Register

The screenshot shows a web browser window with a login/register overlay. The background is a dark image of a modern house. The overlay has two sections: 'Login' and 'Register'. The 'Register' section is active and contains the following fields: Username (User1), Password (123456), Fullname (UserisUser), Email (user12345@gmail.com), and User Type (Applicant, selected). A 'Register' button is at the bottom right of the form.

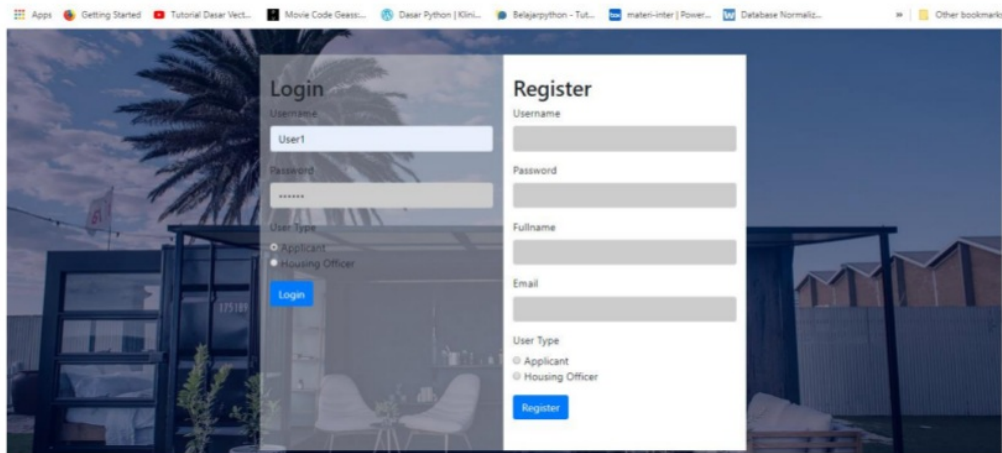
2. After that the data will be automatically stored in the database

The screenshot shows a database management tool interface. The table 'tb\_user' is displayed with the following data:

username	password	fullname	email	user_type
bagus53	1234	I Kadek Bagus Paradhita Utama	bagusparadhita@gmail.com	applicant
chacha	2345	chacha maricha	chacha@gmail.com	housing officer
gantul	4567	gantuloelz	gantulmentalmentul@gmail.com	applicant
jono	4567	jono joni	jono@gmail.com	housing officer
User1	123456	UserisUser	user12345@gmail.com	applicant
Wahyudi	12345	I Nongian Wahyudi Setiawan	wahyudi199917@yahoo.com	applicant

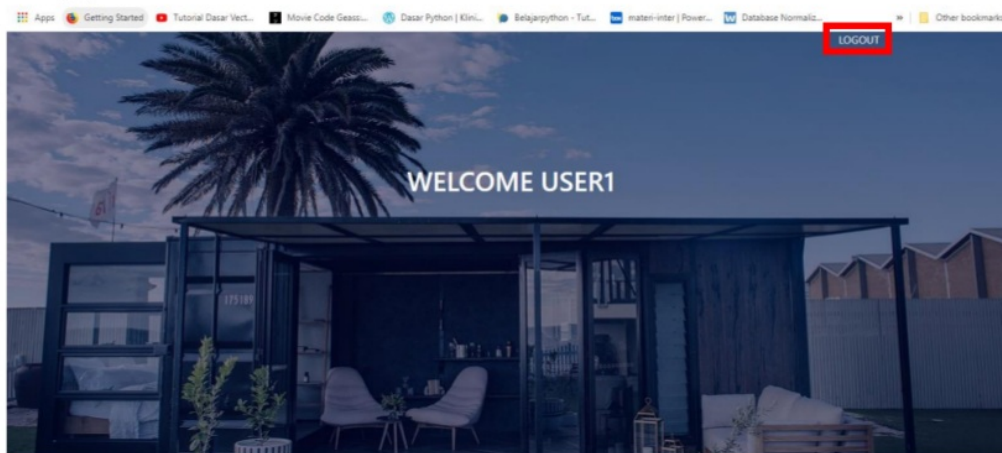
The row with username 'User1' is highlighted with a blue circle.

3. Next input your registered Username, Password, and the User Type then click Login



The screenshot shows a web application interface with two forms: 'Login' and 'Register'. The 'Login' form has fields for 'Username' (containing 'User1'), 'Password' (masked with dots), and 'User Type' (with radio buttons for 'Applicant' and 'Housing Officer', where 'Housing Officer' is selected). A blue 'Login' button is at the bottom. The 'Register' form has fields for 'Username', 'Password', 'Fullname', 'Email', and 'User Type' (with radio buttons for 'Applicant' and 'Housing Officer', where 'Applicant' is selected). A blue 'Register' button is at the bottom. The background is a dark image of a modern house at night.

4. Welcome to the Home page then click LOGOUT to go back to Login and Registration page



## Selenium Test

Selenium IDE - microhousingssystem

Project: microhousingssystem

Executing +

microhousingssystem

http://localhost/microhousingssystem

Command	Target	Value
1. open	/microhousingssystem/login.php	
2. set window size	697x735	
3. click	css= login-right form-group nth-child(1) > form-control	
4. type	css= login-right form-group nth-child(1) > form-control	User1
5. click	css= login-right form-group nth-child(2) > form-control	
6. type	css= login-right form-group nth-child(2) > form-control	123456
7. click	name=full	
8. type	name=full	UsersUser
9. click	name=email	
10. type	name=email	user12345@gmail.com
11. click	css= form-group nth-child(5) > input nth-child(3)	
12. click	css= btn:nth-child(5)	
13. click	name=user	
14. click	name=user	
15. type	name=user	User1
16. click	name=password	
17. type	name=password	123456
18. click	name=type	
19. click	css= btn:nth-child(4)	
20. click	linkText=LOGOUT	

Command

Target

Value

Description

Runs: 1 Failures: 0

Log Reference

Running "microhousingssystem"

1. open on /microhousingssystem/login.php OK 00:16:31

2. setWindowSize on 697x735 OK 00:16:31

3. click on css= login-right form-group nth-child(1) > form-control OK 00:16:32

4. type on css= login-right form-group nth-child(1) > form-control with value User1 OK 00:16:33

5. click on css= login-right form-group nth-child(2) > form-control OK 00:16:33

6. type on css= login-right form-group nth-child(2) > form-control with value 123456 OK 00:16:34

7. click on name=full OK 00:16:34

8. type on name=full with value UsersUser OK 00:16:34

9. click on name=email OK 00:16:34

10. type on name=email with value user12345@gmail.com OK 00:16:35

11. click on css= form-group nth-child(5) > input nth-child(3) OK 00:16:35

12. click on css= btn:nth-child(5) OK 00:16:35

13. click on name=user OK 00:16:36

14. click on name=user OK 00:16:36

15. type on name=user with value User1 OK 00:16:37

16. click on name=password OK 00:16:37

17. type on name=password with value 123456 OK 00:16:37

18. click on name=type OK 00:16:38

19. click on css= btn:nth-child(4) OK 00:16:38

"microhousingssystem" completed successfully 00:16:38

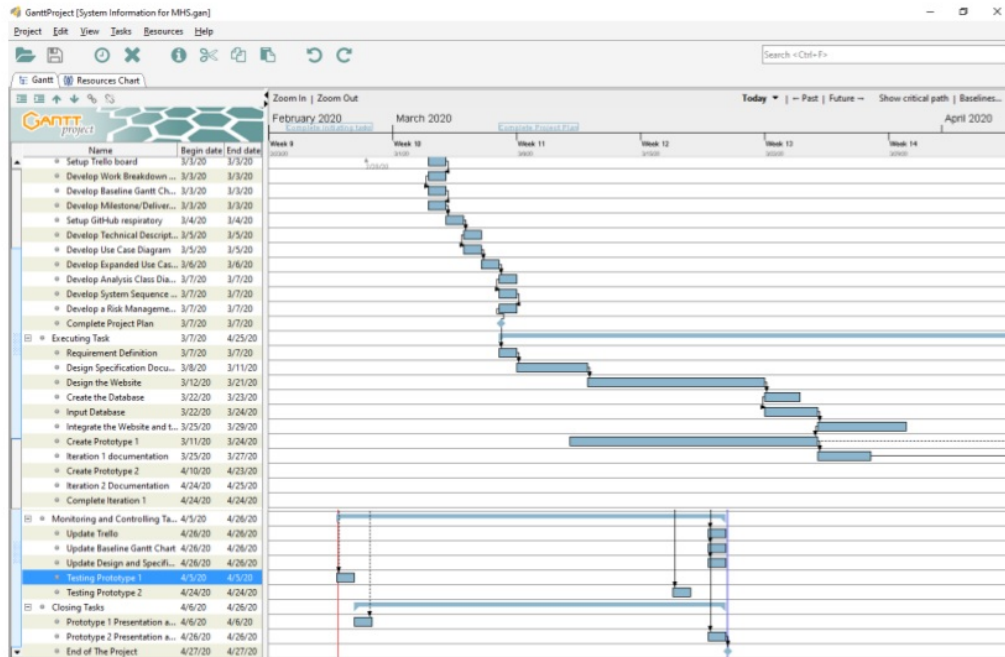
## Test Analysis Report

From the testing we can conclude that the program run according to Login and Registration use case because we only manage to make Login and Registration page, we will continue to make the website in Assignment 3. The website run normally without error and the user interface is simple and easy to use.

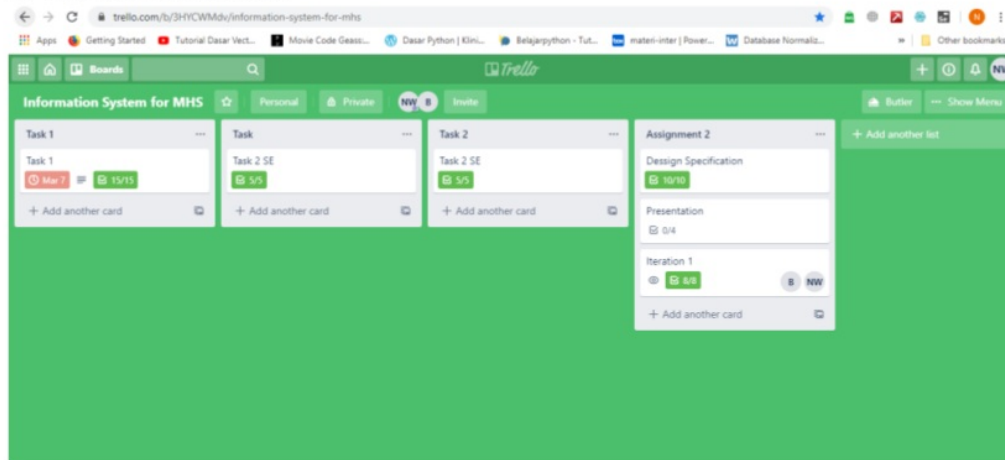


## Update Gantt Chart/Trello Board

### 1. Update Gantt Chart



### 2. Update Trello Board





Boards

Information System for MHS

Task 1

Task 1

15/11

+ Add another card

Boards

Information System for MHS

Task 1

Task 1

15/11

+ Add another card

Design Specification

in list Assignment 2

Description

Add a more detailed description...

Finished

100%

Introduction

Use-Case

High-level-view

Design-Class-Diagram

ERD

Site-Map

Wireframe

System-design

System-sequence-diagram+contract

Database-Design

Activity

Write a comment...

NW

Nengah Wahyudi

completed Database Design on this card

10 hours ago

NW

Nengah Wahyudi

completed System design on this card

10 hours ago

NW

Nengah Wahyudi

completed Site Map on this card

10 hours ago

NW

Nengah Wahyudi

completed System sequence diagram+contract on this card

10 hours ago

NW

Nengah Wahyudi

completed Wireframe on this card

10 hours ago

B

bagusparadhita53

completed ERD on this card

10 hours ago

B

bagusparadhita53

completed Design Class Diagram on this card

10 hours ago

B

bagusparadhita53

completed High Level view on this card

10 hours ago

B

bagusparadhita53

completed Use Case on this card

10 hours ago

B

bagusparadhita53

completed Introduction on this card

10 hours ago

NW

Nengah Wahyudi

added Finished to this card

Apr 4 at 1:51 PM

NW

Nengah Wahyudi

added this card to Assignment 2

Apr 4 at 1:51 PM

SUGGESTED

Join

Feedback

ADD TO CARD

Members

Labels

Checklist

Due Date

Attachment

Cover

POWER-UPS

Get Power-Ups

ACTIONS

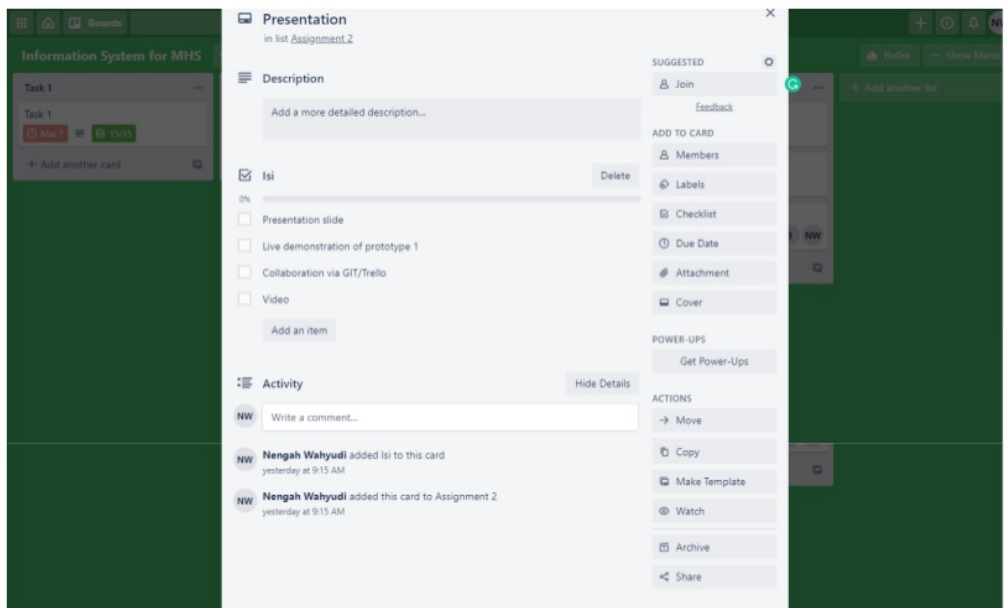
Move

Copy

Archive

Share





## GitHub

3 commits		1 branch		0 packages		0 releases		2 contributors	
Branch: master		New pull request		Create new file		Upload files		Find file	
BagusParadhita Add files via upload								Latest commit 87ff062 15 hours ago	
BIT302 Assignment 1_J Kadek Bagus Paradhita Utama(E1700866)_J Neng...		Add files via upload						18 hours ago	
README.md		Initial commit						last month	
home.php		Add files via upload						15 hours ago	
image.jpg		Add files via upload						15 hours ago	
login.php		Add files via upload						15 hours ago	
logout.php		Add files via upload						15 hours ago	
microhousingsystem.sql		Add files via upload						15 hours ago	
registration.php		Add files via upload						15 hours ago	
style.css		Add files via upload						15 hours ago	
validation.php		Add files via upload						15 hours ago	

Assignment2\_BIT302\_I Kadek Bagus Paradhita  
Utama(E1700866)\_I Nengah Wahyudi Setiawan(E1700868)

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ORIGINALITY REPORT

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0%	0%	0%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

---

PRIMARY SOURCES

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Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		