BIT302
Software Engineering

ASSIGNMENT 1
Project Proposal

"Web-based Information System for MicroHousing System in Kuala Lumpur"

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Introduction

For almost a decade, Internet has been rapidly developed and it pushes for more development of advanced technology, helping individuals to do work better. Businesses, companies, industries is trying to take advantage of technology development to enhance and improve their operations on daily basis. This has been done by industrials in order to provide better product & services to customer and attract for more benefits.

Most of businesses nowadays will rely on a web-based or web application information system. Information systems are combinations of hardware, software, and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings (Valacich & Schneider, 2010). A web application (or "web app" for short) is any computer program that performs a specific function by using a web browser as its client (Nations, 2019).

Project Background

With nowadays-human population that is greatly (and rapidly) increases, house and land is component that start to become a problem. This is happened due to inequality of economy (common sense) between people. With that said, certain people will have to live in a temporary living place (Apartment, hotels, etc.), while others have their permanent house. The problem that, as population increases, it is starting to be very hard to get a land and build a house, or even rent a temporary living place. Some says because old people have too much house, that makes young people hard to get one (Anderssen, 2018). Some says because either of minimum wages they have that cannot even pay a rent (Anderssen, 2018), (Regan, 2018), or even because there are no more place for rent. Even youths who are looking for boarding house couldn't even afford to pay rent because of low wages (or inadequate economy), or also because there's almost no place that is available to rent. (Carney, 2018), (Babulal & Athirah, 2019).

This problems turns out also hitting youths in Malaysia. Therefore, Kuala Lumpur City Hall has proposed a scheme to help youths to rent accommodation or boarding houses at affordable prices (Babulal & Athirah, 2019). With this, we want to take the advantage of web-based information system, hoping to help government to accommodate youths in more proper and better way while we can also help youths to get the accommodation in a more efficient, easier, and faster ways.

To build this system, we have to know the features of the boarding house, the cost and how many it can accommodate. We also need personal information (Name, email, rent duration, etc.) of applicants that will register themselves for the boarding house. With this system, the housing officer will have easier & efficient way to maintain & monitor applicants that are living in the micro houses, applicants that already pay rents or not yet, etc.

We will put the data of personal information & rent bill in a database handled by Housing Officer. Housing Officer will be given password to access the system to add, delete and update the data. Each applicant will get a user ID and password to see their personal information, rent bill, duration, contact details of housing officers, etc. The desired outcome will be a web – based information system that allows applicants to see their information in real time.

Project Aims

- To change the traditional way of transaction & interaction between government and people about micro housing.
- To provide easier way for government to manage house rent for youths with low wages.
- To provide efficient and convenient way of youths in search of boarding house with affordable price.

Project Objectives

1. Conducting a research about type of micro house that will be rented.
2. Determining how many people can be accommodated into a micro house.
3. Listing features that will be available for each houses.
4. Select tools and programming language that are most suitable to develop the information system.
5. Produce deliverables related to the project.
6. Decide the design of UI.
7. Creating database and input all the data that are needed.
8. Integrating database and web design to produce a complete application.

Project Scope

- **Project Title:** Web-based Information System for Micro Housing System in Kuala Lumpur
- **Date:** February 7th 2020
- **Prepared by:** Luh Wulandari Maharani, Team Leader, luhwulandari@gmail.com

Project Summary and Justification:

This information system is made to help government in terms of the development of DBKL Micro Housing Scheme, while also helping youths to find a more affordable price for boarding house. Through the system, we are integrating database system and website design. The system will be managed by Housing Officer to add, delete and update data. In the end, Housing Officer can maintain & monitor activities & accommodation (availability, management etc.), while youths (college or high school students) can live in a proper boarding house with affordable price. Youths can also monitor their rent bill during their stay, checking their duration, personal information, and contact details of regarding parties.

Product Characteristics and Requirement:

1. Research on government for DBKL Micro Housing Scheme to know specific requirements, models, types, features, etc.
2. Research on common property that applied web-based information system for their business.
3. Providing content that suitable to solve problems or making things easier and efficient. The web-based information system should be informative and helpful by showing all data that are applicants and Housing Officer need to see.
4. The web application will be tested with different browsers to make sure it is accessible and does not have any display problem.
5. The entire link will be tested, to see if the link work properly or not.

Summary of Project Deliverables

Project management-related deliverables: Project aims, project objectives, scope statement, WBS, schedule, requirements specification document, design and testing documentation, working web-based information system, final project presentation, and other documents required to manage the project.

Product-related deliverables:

1. Web-based information system that can be accessed by any registered applicants.
2. The content of the web allows applicants to know what type of micro housing they are going to have, features, capacity, duration, availability of the micro housing.
3. Ability to manage communication and coordination between Housing Officer and applicants regarding accommodation & availability of boarding house.

Project Success Criteria: Our goal is to complete this project within three months. The project will be considered successful if it meets the entire product characteristic and requirement listed above, and does not misaligned with the project scope. The project team will succeed if they can follow team contract and stay on track of WBS and Gantt Chart that has been created.

Project Schedule

Schedule	Start Date	End Date	Estimate Days	Responsible
Initiating				
Identifying Topic	Fri,7/2/2020	Fri,7/2/2020	1 day	All
Conducting Research	Mon, 10/2/2020	Wed,12/2/2020	3 days	All
Identifying Project Aims and Background	Thu,13/2/2020	Fri,14/2/2020	2 days	All
Identifying Non Functional and Functional Requirements	Mon,17/2/2020	Wed,19/2/2020	3 days	All
Complete Initiating Task	Wed,19/2/2020	Wed,19/2/2020	0 day	All
Planning				
Determining Project Scope	Fri,7/2/2020	Fri,7/2/2020	1 day	
Determining WBS	Fri,7/2/2020	Fri,7/2/2020	1 day	Wulan
Project Schedule	Fri,7/2/2020	Fri,7/2/2020	1 day	Wulan
Baseline Gantt Chart	Fri,7/2/2020	Fri,7/2/2020	1 day	Wulan
Development and Demonstration Platform	Mon, 10/2/2020	Wed,12/2/2020	3 days	
Risk Management Plan	Thu,13/2/2020	Fri,14/2/2020	2 days	Aldo
Use Case Diagram and Class Diagram	Mon,17/2/2020	Wed,19/2/2020	3 days	Wulan
Expanded Use Cases	Thu,20/2/2020	Fri,21/2/2020	2 days	Wulan
Analysis Class Diagram	Mon,24/2/2020	Tue,25/2/2020	2 days	
Executing				
Web Page Basic Design	Thu,27/2/2020	Wed,25/3/2020	-	All
Prototype Developing Process	Thu,27/2/2020	Wed,25/3/2020	-	All
System Finishing	Fri,24/4/2020	Fri,24/4/2020	-	All
Monitoring and Controlling				
Update the Gantt Chart	Thu,27/2/2020	Fri,24/4/2020	-	Wulan
Testing the Prototype	Thu,26/3/2020	Fri,27/3/2020	-	
Testing the Complete System	Fri,28/2/2020	Fri,28/2/2020	-	
Closing				
Final Report	Tue,3/3/2020	Tue,3/3/2020	0 day	

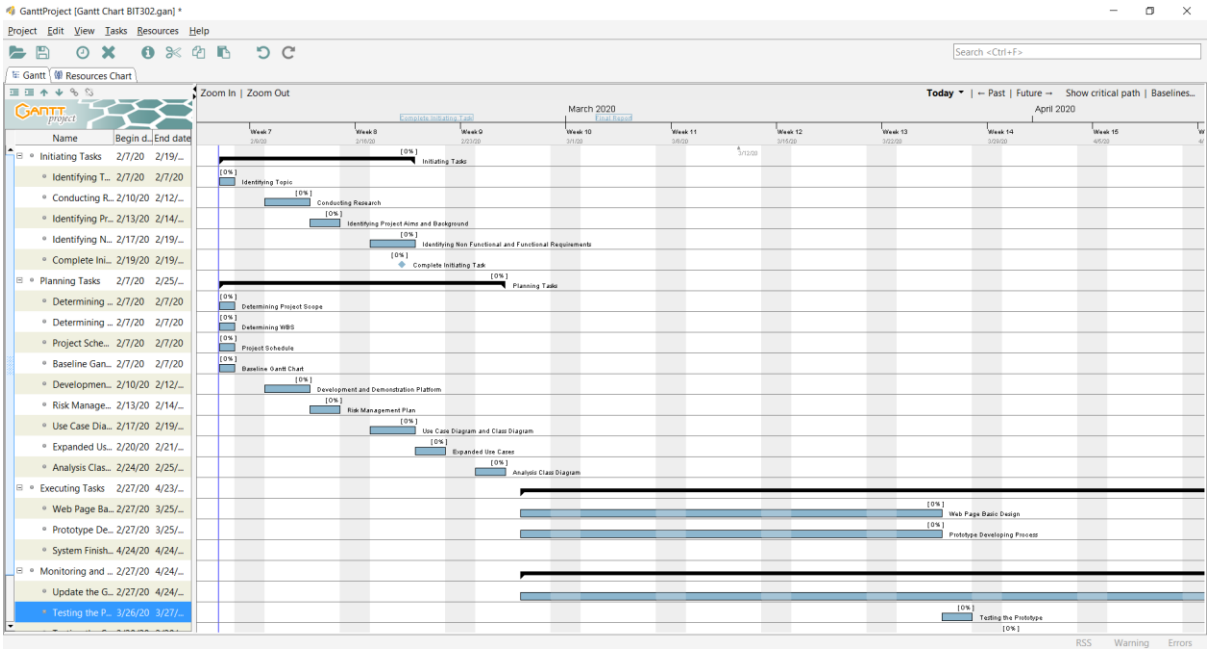
Work Breakdown Structure

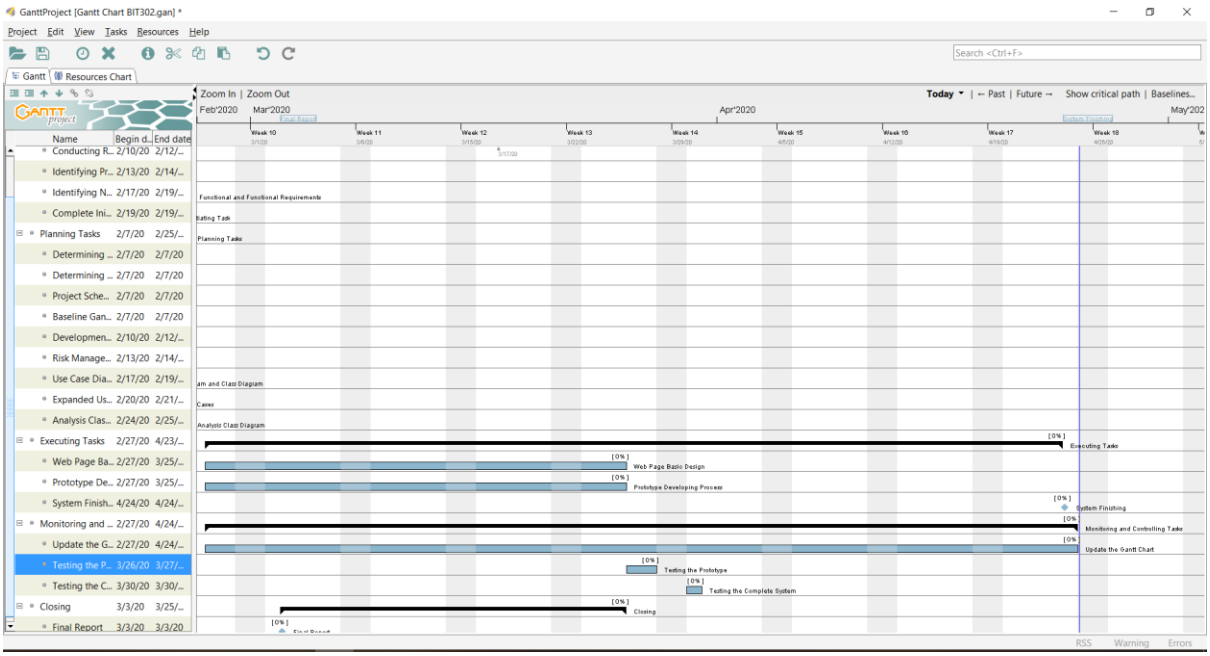
1. Initiating Tasks
    - 1.1 Identifying Topic
    - 1.2 Conducting Research
    - 1.3 Identifying Project Aims and Background
    - 1.4 Identifying Non Functional and Functional Requirements
    - 1.5 Complete Initiating Task
2. Planning Tasks
    - 2.1 Determining Project Scope
    - 2.2 Determining WBS
    - 2.3 Project Schedule
    - 2.4 Baseline Gantt Chart
    - 2.5 Development and Demonstration Platform
    - 2.6 Risk Management Plan
    - 2.7 Use Case Diagram and Class Diagram
    - 2.8 Expanded Use Cases
    - 2.9 Analysis Class Diagram
3. Executing Tasks
    - 3.1 Web Page Basic Design
    - 3.2 Prototype Developing Process
    - 3.3 System Finishing
4. Monitoring and Controlling Tasks
    - 4.1 Update the Gantt Chart
    - 4.2 Testing the Prototype
    - 4.3 Testing the Complete System
5. Closing
    - 5.1 Final Report

Milestones

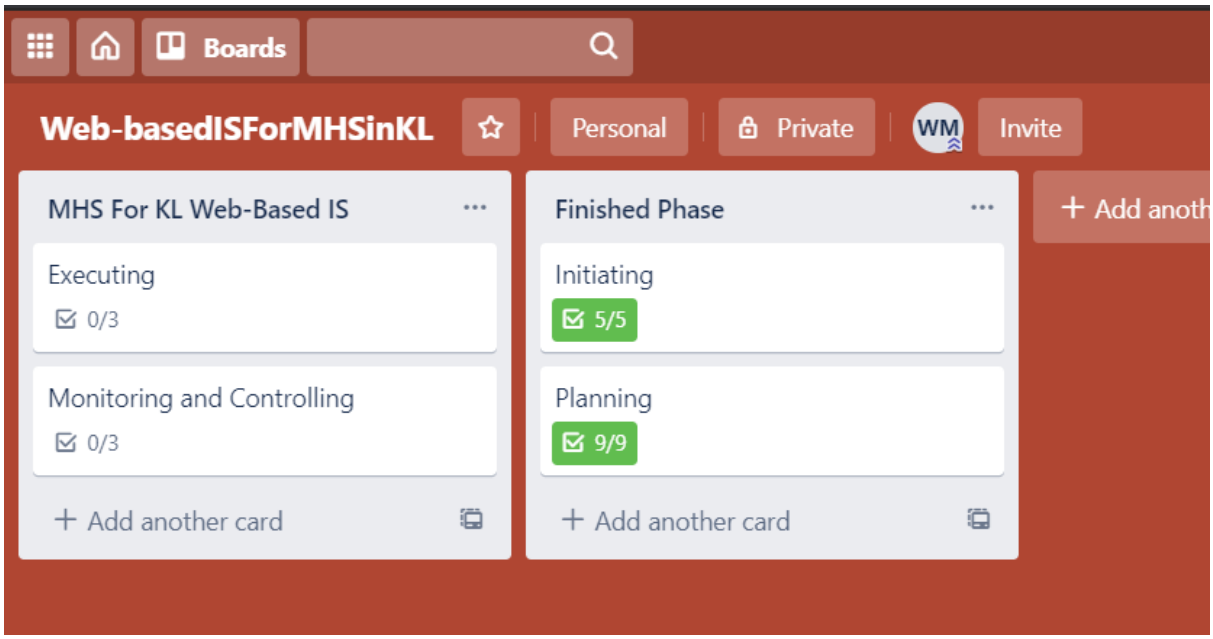
- Complete Initiating Task
- Testing the Prototype
- Testing the Complete System
- Final Report

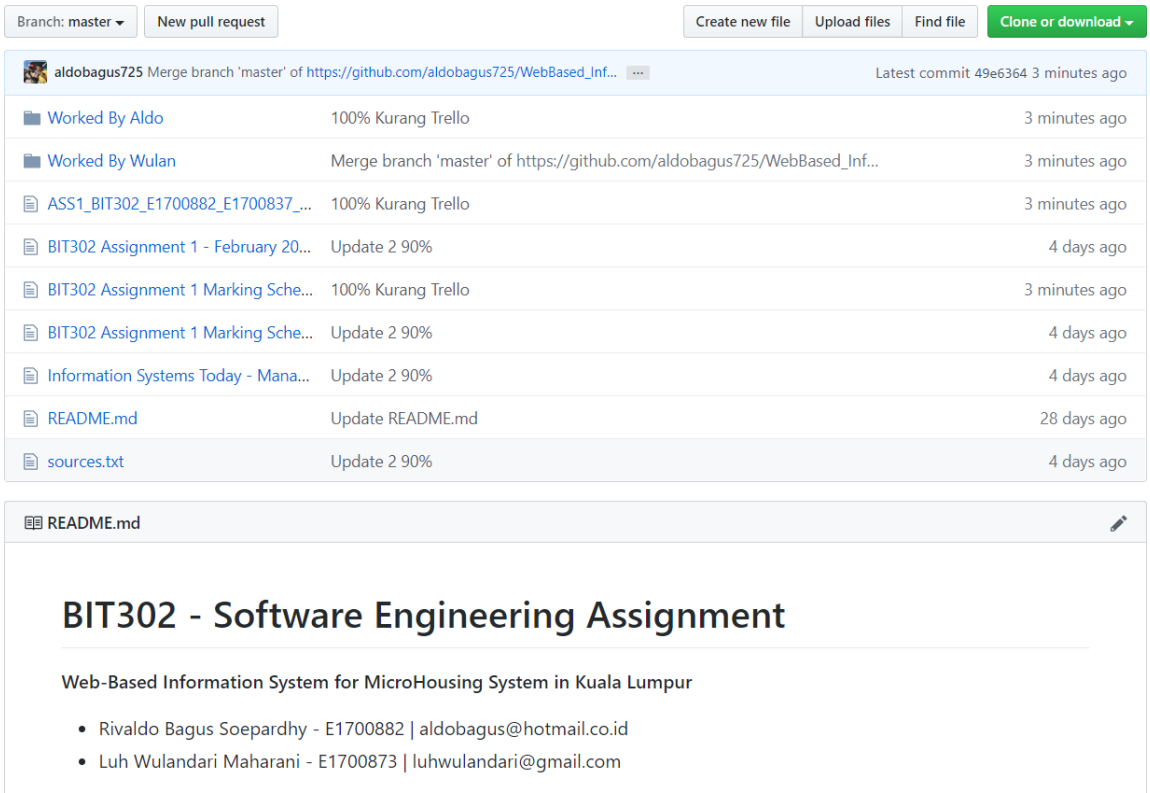
Gantt Chart





Trello & GitHub





Development Platform

Software/tools:

1. **Microsoft Excel**

   We will use Excel to store data and formula that we have collected before inputting them to database in MySQL.

2. **Microsoft Word**

   We will use Word to produce documents and reports related to this project.

3. **Microsoft Power Point**

   Power Point will be used to create presentation to show the design of our system and what went right or wrong during the development of the system.

4. **Microsoft Visio**

   We will use this tool to create use case diagram, class diagram and sequence diagram.

5. **MySQL**

   We choose MySQL as our relational database management system because it is open – source and has many features to help us managing our database.

6. **Visual Studio Code**

   Visual Studio Code will be used to write our codes to design the interface for our web application.

7. **phpMyAdmin**

   We choose this tool because it is open – source and it can be connected to our database in MySQL. phpMyAdmin provides a convenient graphical user interface to work with and it also has all common functions that we need to develop a MySQL-based application or website.

8. **GanttProject**

   GanttProject is an open – source project management software that we use to create Gantt chart which help us in scheduling works for this project.

Hardware:

1. **Laptop**

   All the for developing this application will be done using laptops that run on Windows operating system.

Demonstration Platform

Software:

1. **Web browser – Google Chrome and Mozilla Firefox**

   Because we are developing web based application, this application will be opened through a web browser. We choose Google Chrome and Mozilla Firefox to open our application because those are the most common browsers used nowadays. We also want to make sure our design and the data being displayed are consistent in both browsers.

Hardware:

1. **Laptop and PC**

   Our application is intended to be opened through web browsers from laptop and personal computer.

Risk Management Plan

Risk Management Plan for Development of Web-based Information System for Micro Housing System in Kuala Lumpur											
Prepared by: Luh Wulandari Maharani & Rivaldo Bagus Soepardhy						Date: Monday 30th February 2020					
No	**Rank (1-5)**	**Risk**	**Description**	**Category**	**Root Cause**	**Triggers**	**Potential Responses**	**Risk Owner**	**Probability**	**Impact**	**Status**
R1	4	Lack of understanding (or misunderstanding) of all the requirement in the project.	When requirements are not fully understood or when the deliverables are not according to the project scope, the system produced may not match what the users need.	Process Risk	Lack of research and understanding about the purpose / scope of the project.	Not enough time to carry out or poor brainstorming of the project's scope.	Spare some times to conduct more research about similar application to learn about requirements that needed to be fulfil	Wulan	**High**	**Medium**	We thought to have a more commercialized information system (market place) while the project only need to have a sophisticated information system for the sake of management. It is resolved now.
R2	5	The project working duration may be exceeded from the planned.	Team member may be overwhelmed with the project or busy agenda.	Process Risk	Each team member is busy with other activities.	Another project from other subject, Sudden personal agenda (Undeniable family occasion, etc.)	Do online discussion if it is not possible to physically conduct a meeting, tighten the work days to catching up missed days	All	**Medium**	**Medium**	Wulan needs to do ceremony due to religion obligation. Although so, we can still catchup through online platform and pushing work until now.
R3	4	The system may possibly have some malfunctions.	The system might having bugs, crashes, or errors.	System Risk	Bad coding structure, logical error, software bugs.	Coding carelessly, not enough prototype / final testing.	Catching up by doing more intense testing, more thorough checking	Aldo	**Medium**	**High**	This issue has not happened yet.
R4	3	Lack of communication that may lead to misunderstanding between team members.	Unclear task delegation, misunderstanding / miscommunication can cause different opinion or even conflict	People Risk	Each team member is busy with other activities.	Have different schedules that make it difficult to have same spare time to meet and communicate about the project.	Do online discussion if it is not possible to physically conduct a meeting, make a meeting schedule from the beginning of the project.	Wulan	**High**	**High**	It is common to have misunderstanding. In order to prevent this, we often communicate working in physical or online platform.

Probability and Impact Matrix

High		R1	R4
Medium		R2	R3
Low			
Probability / ***Impact***	**Low**	**Medium**	**High**

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Software Engineering

ASSIGNMENT 1
Requirement Document

"Web-based Information System for MicroHousing System in Kuala Lumpur"

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Functional Requirements

HousingOfficer requirement:

1. HousingOfficer has login menu that can be filled with user ID and password to go directly to HousingOfficer homepage.
2. HousingOfficer can change the password if HousingOfficer forget their password.
3. HousingOfficer must have “edit menu” which is can edit residence detail.
4. HousingOfficer must have “add menu” which is can set up new residence.
5. HousingOfficer must have “delete menu” which is can delete applicant and residence detail.
6. HousingOfficer must have “view menu” which is can view applications and residence details.
7. Payment menu to display payment details for applicant, which is designed by HousingOfficer.
8. Logout Menu to exit from the application.

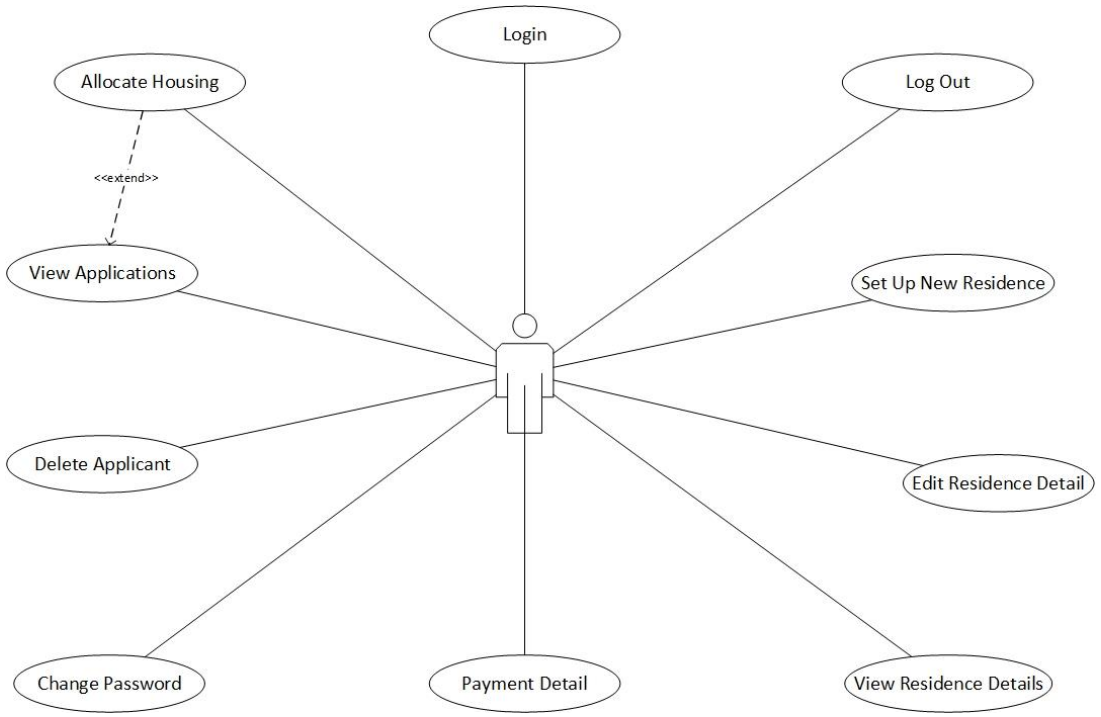
Applicant Requirement:

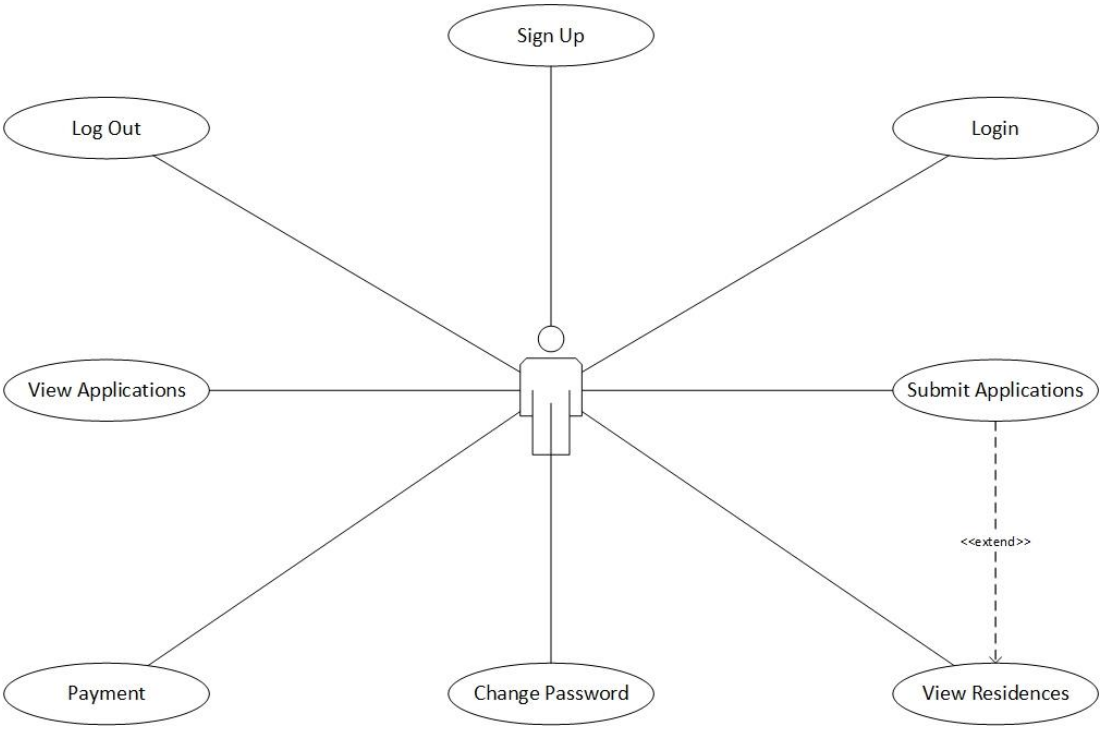
1. Applicant will register where the form has been given.
2. Applicant has login menu that can be filled with user ID and password so that the applicant can access the system without confusion, and will be directed to the home page.
3. Applicant can change the password if applicant forget their password.
4. The system has a menu with buttons or icons that applicants can choose from view application, view residences, wish list, submit applications and payment.
5. Logout Menu to exit from the application.

Non – functional Requirements

1. Security requirement: using login system for authorization to prevent unauthorized access of certain parties.
2. Usability: the system should be easy to access for Housing Officer and Applicant.
3. Integrity: Data inside the system will be keep as it is untampered and unharmed.
4. Modifiability: Data can only be change by authorized user (HousingOfficer).

Use Case Diagram





Use Cases

Requirement	Actor	Use Case
Login page created for HousingOfficer and applicants to login	HousingOfficer Applicant	Login
HousingOfficer and Applicant can access the system and login with the new password	HousingOfficer Applicant	Change Password
HousingOfficer dan Applicant can exit the application through the system	HousingOfficer Applicant	Log Out
Applicant will create account and saved by the sytem	Applicant	Sign Up
The system displays a page where that can display Applications and validation for the applicant	HousingOfficer	View Applications
The system displays a page where that can display residence details	HousingOfficer	View Residence Detail
The system allocates housing where the applicant has ordered a slot for a long time but will be verified by HousingOfficer	HousingOfficer	Allocate Housing
HousingOfficer can input several new residences to the system	HousingOfficer	Set Up New Residence
Residence details will be changed for some data and will be recorded in the system by HousingOfficer	HousingOfficer	Edit Residence Detail
Applicants can be removed if needed on the system by the HousingOfficer	HousingOfficer	Delete Applicant
Residence Detail can be removed if needed on the system by HousingOfficer	HousingOfficer	Delete Residence Detail
Payment Details will display the payment form which is done by the system and designed by HousingOfficer	HousingOfficer	Payment Detail
The system has a page which will display applications that can be seen by applicant	Applicant	View Applications
The system has a page which will display residence details that can be seen by applicant	Applicant	View Residences
The submit page will display a form to be filled by the applicant and will be saved by the system	Applicant	Submit Applications
The payment page will automatically be display by the system and the applicant can see the payment details	Applicant	Payment

Expanded Use Cases

1. Login

Use Case	Login
Goal in Context	Allow HousingOfficer and Applicant access the main page
Primary Actor **Secondary Actor**	HousingOfficer and Applicant -
Typical Course of Events	
Actor Actions	**System Response**
1. The process starts when the user input their ID user and password and press the login button	2. The system will validate the information received
	3. System will display the homepage for HousingOfficer or Applicant
Alternative Course	
If the HousingOfficer or Applicant inputs an incorrect user ID or password then the system will display notification if the information entered is incorrect, and HousingOfficer or Applicant must fill in with correct user ID and password.	

2. Change Password

Use Case	Change Password
Goal in Context	Allow HousingOfficer and Applicant changed their password
Primary Actor **Secondary Actor**	HousingOfficer and Applicant -
Typical Course of Events	
Actor Actions	**System Response**
1. Process occurs when the HousingOfficer or Applicant login	
2. HousingOfficer or Applicant will select the chang Password button	3. System will display a form for change password that must be filled with a new password
4. HousingOfficer or Applicant will fill in with new password and one – time validation	
5. HousingOfficer or Applicant will press the submit button	
	6. System will save the update in the database
Alternative Course	
If there is a third of mismatch password event, then a message will appear and the new password will not be submitted	

3. Log Out

Use Case	Log Out
Goal in Context	Allow HousingOfficer and Applicant exit from the application
Primary Actor **Secondary Actor**	HousingOfficer and Applicant -
Typical Course of Events	
Actor Actions	**System Response**
1. The process starts when the user clicks the Log Out button	2. System will exit the user from the main page
Alternative Course	
-	

4. Sign Up

Use Case	Sign Up
Goal in Context	Allow Applicant create account for login to application
Primary Actor **Secondary Actor**	Applicant -
Typical Course of Events	
Actor Actions	**System Response**
1. The process start when applicant click the sign up button	2. System will redirected to the sign up form
3. Applicant will fill the form with all the information	
4. Applicant submit all personal information	5. System will save new information to the database
Alternative Course	
If the username already used by another user the applicant will make new username	

5. View Applications

Use Case	View Applications
Goal in Context	Allow HousingOfficer to see the whole applications form
Primary Actor **Secondary Actor**	HousingOfficer Applicant
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer can access the page where there is a list of applicants	2. System will display page that containing the applicant
Alternative Course	
-	

6. View Residence Detail

Use Case	View Residence Detail
Goal in Context	Allow HousingOfficer to see the whole residence detail form
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer can access the page where there is a list of residence	2. System will display page that containing the residence detail
Alternative Course	
-	

7. Allocate Housing

Use Case	Allocate Housing
Goal in Context	Allow HousingOfficer to book applicant who have booked slots that have long been ordered and will be sorted again
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer will check the applicants one by one	
2. HousingOfficer will select the applicant who has chosen the residence first	3. The system will save the information that has been entered by HousingOfficer
Alternative Course	
-	

8. Set Up New Residence

Use Case	Set Up New Residence
Goal in Context	Allow HousingOfficer to input new residence information
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. The process occurs when HousingOfficer input new residence information	2. The system will save new data
Alternative Course	
-	

9. Edit Residence Detail

Use Case	Edit Residence Detail
Goal in Context	Allow HousingOfficer to change the information about the residence
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer checks the residence that want to change	
2. HousingOfficer will choose which residence to change	3. The system will display the residence page
4. HousingOfficer will input ne data that change and selected by HousingOfficer	5. System will save changes and will update the information that will be displayed in residence detail page
Alternative Course	
HousingOfficer akan	

10. Delete Applicant

Use Case	Delete Applicant
Goal in Context	Allow HousingOfficer to delete information about the Applicant
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer will select the Applicant that they want delete	2. System will receive information which will be deleted
	3. System will update information and will be updated in the database
Alternative Course	
-	

11. Delete Residence Detail

Use Case	Delete Residence Detail
Goal in Context	Allow HousingOfficer to delete information about the Residence
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer will choose which residence they want delete	2. System will receive information which will be deleted
	3. System will update information and will be updated in the database
Alternative Course	
-	

12. Payment Detail

Use Case	Payment Detail
Goal in Context	Allow HousingOfficer to make a detailed payment form
Primary Actor **Secondary Actor**	HousingOfficer -
Typical Course of Events	
Actor Actions	**System Response**
1. HousingOfficer will edit the payment form details that have been made	2. The system will save all information that has been entered by the applicant
Alternative Course	
-	

13. View Applications

Use Case	View Applications
Goal in Context	Allow Applicant to see the whole other applicants
Primary Actor **Secondary Actor**	Applicant HousingOfficer
Typical Course of Events	
Actor Actions	**System Response**
1. Applicant can access the entire Applications page	2. The system will display the Applications page
Alternative Course	
-	

14. View Residences

Use Case	View Residences
Goal in Context	Allow Applicant to see the whole other applicants
Primary Actor **Secondary Actor**	Applicant HousingOfficer
Typical Course of Events	
Actor Actions	**System Response**
1. Applicant can access the entire residences page	2. The system will display the Residences page
Alternative Course	
-	

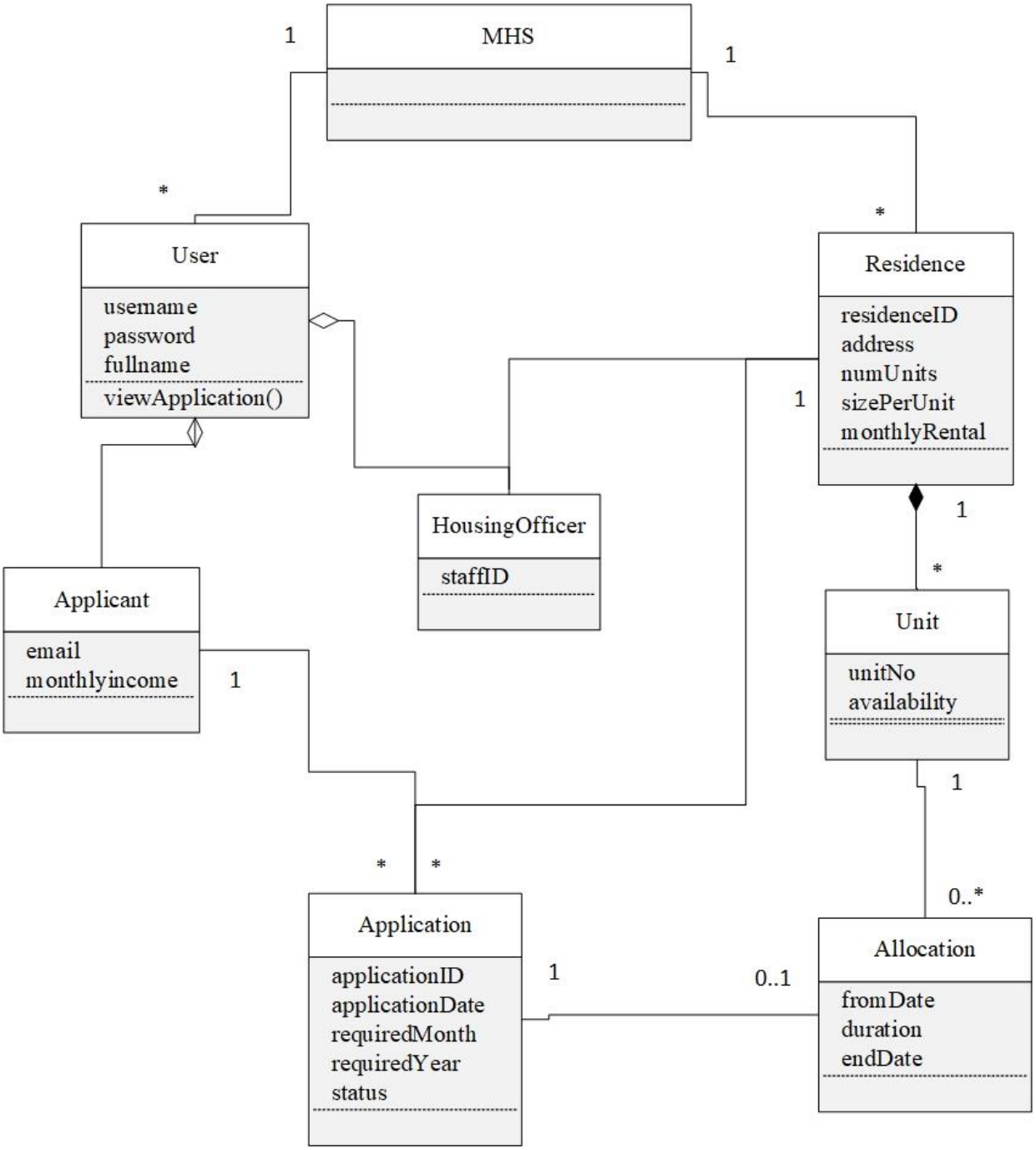
15. Submit Applications

Use Case	Submit Applications
Goal in Context	Allow Applicant to enter information about the new applicant
Primary Actor **Secondary Actor**	Applicant HousingOfficer
Typical Course of Events	
Actor Actions	**System Response**
1. Applicant will choose which Residence you want to occupy	
2. Applicant will fill in the form provided	3. The system will save all information that has been filled
Alternative Course	
If the information entered by the applicant an incorrect, the applicant will refill it again	

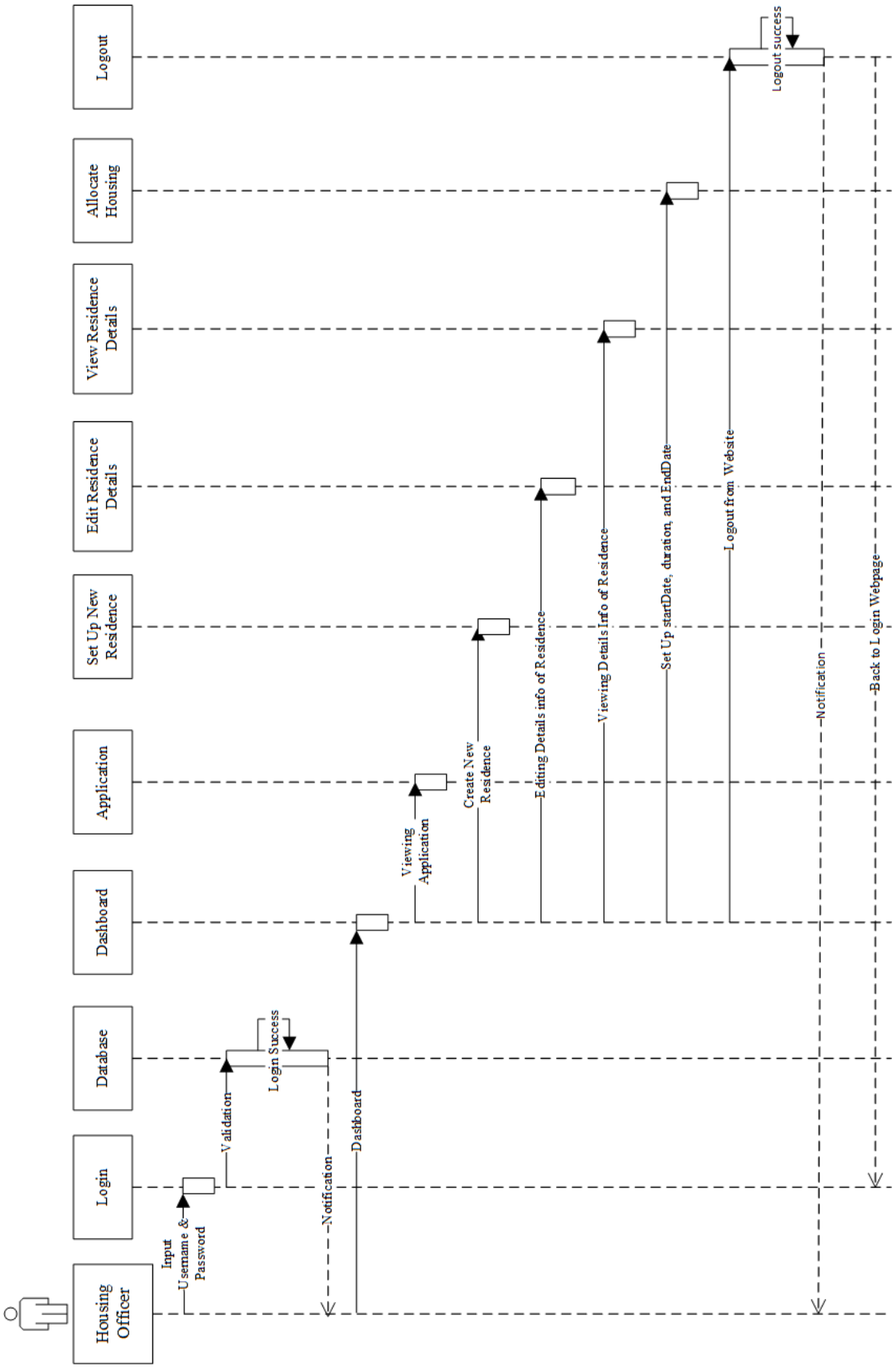
16. Payment Detail

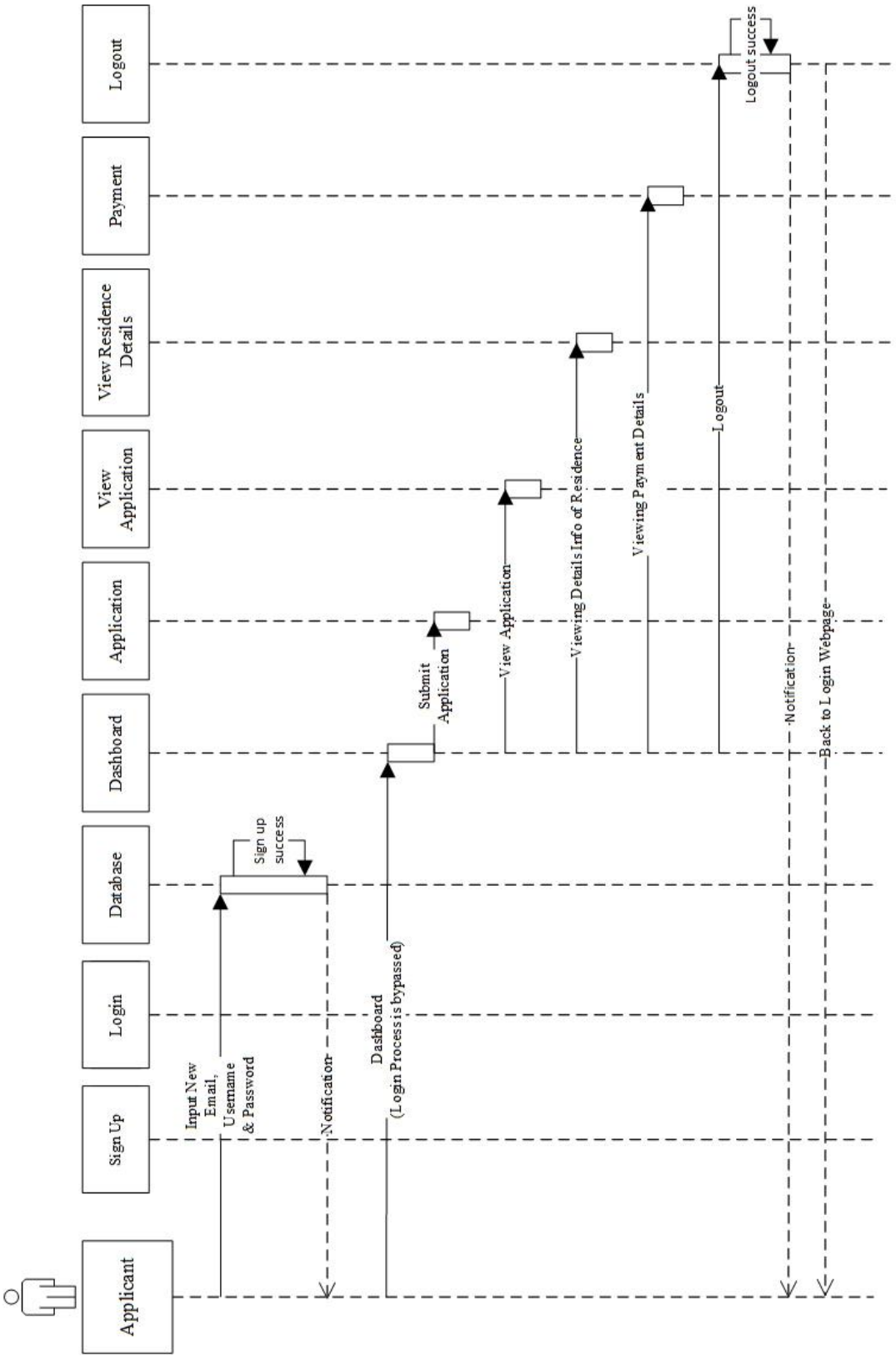
Use Case	Payment Detail
Goal in Context	Allow Applicant to see payment details
Primary Actor **Secondary Actor**	Applicant -
Typical Course of Events	
Actor Actions	**System Response**
1. The process occurs when the applicant has finished entering all the information that has been submitted	2. The system will check all information that has been submitted
	3. The system will display the payment in detail
4. Applicants will choose their payment method	5. The system will direct the applicant to make a transaction
	6. The system will validate
Alternative Course	
If the Applicant incorrectly enters information or chooses the payment method, the transaction will not occur.	

Analysis Class Diagram

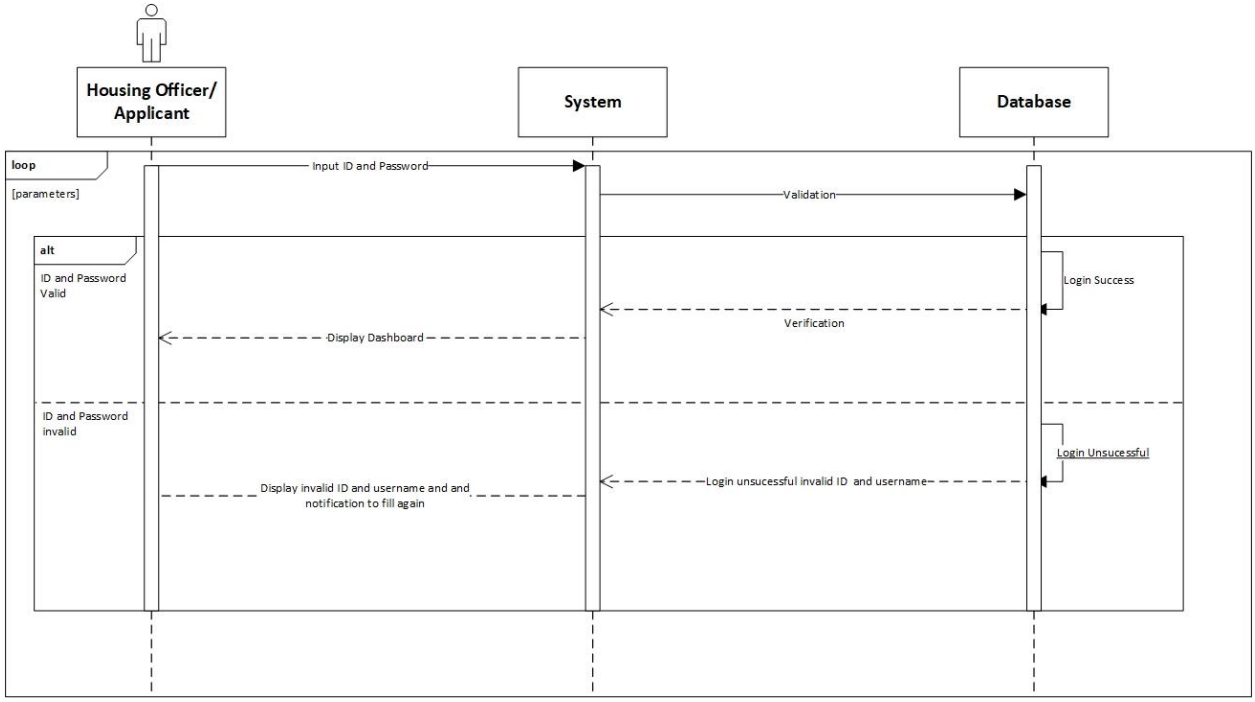


System Sequence Diagram & Team Contract




Applicant
Sign Up
Login
Database
Dashboard
Application
View Application
View Residence Details
Payment
Logout
Input New Email, Username & Password
Sign up success
Notification
Dashboard (Login Process is bypassed)
Submit Application
View Application
Viewing Details Info of Residence
Viewing Payment Details
Logout
Logout success
Notification
Back to Login Webpage

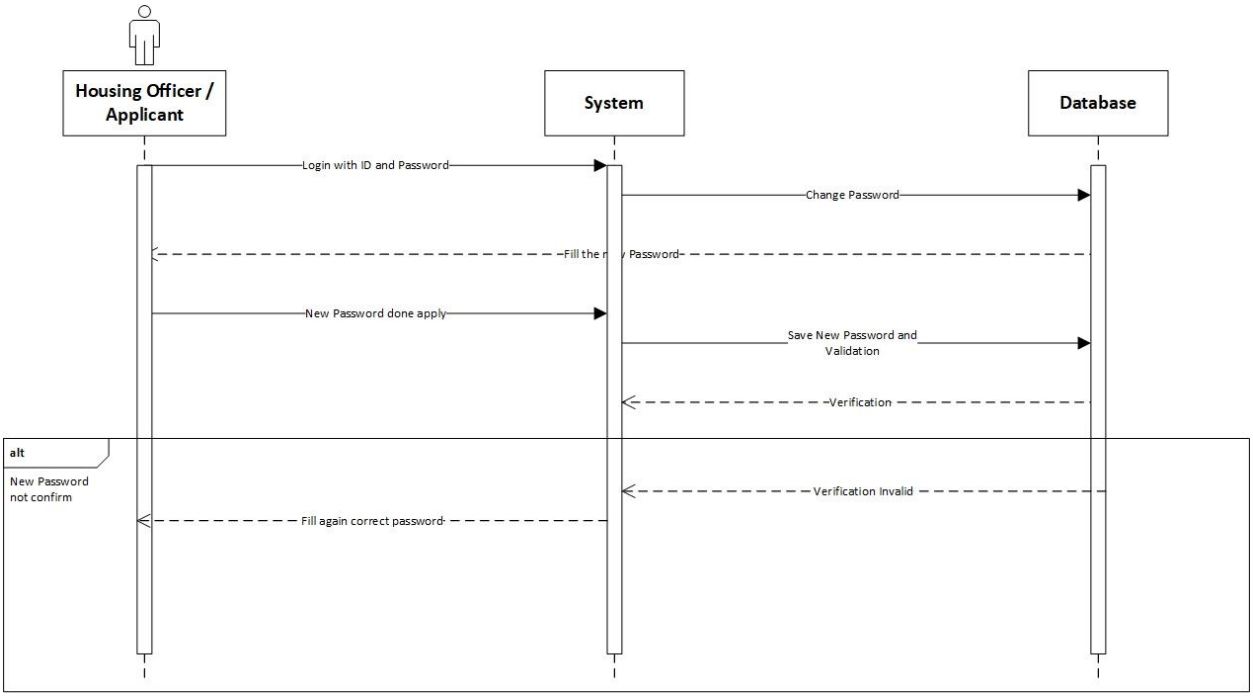
1. **Login**



Prepared by: Luh Wulandari Maharani

Cross References	Login
Operation	Login with ID and username
Responsible	To access the main page
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

2. Change Password

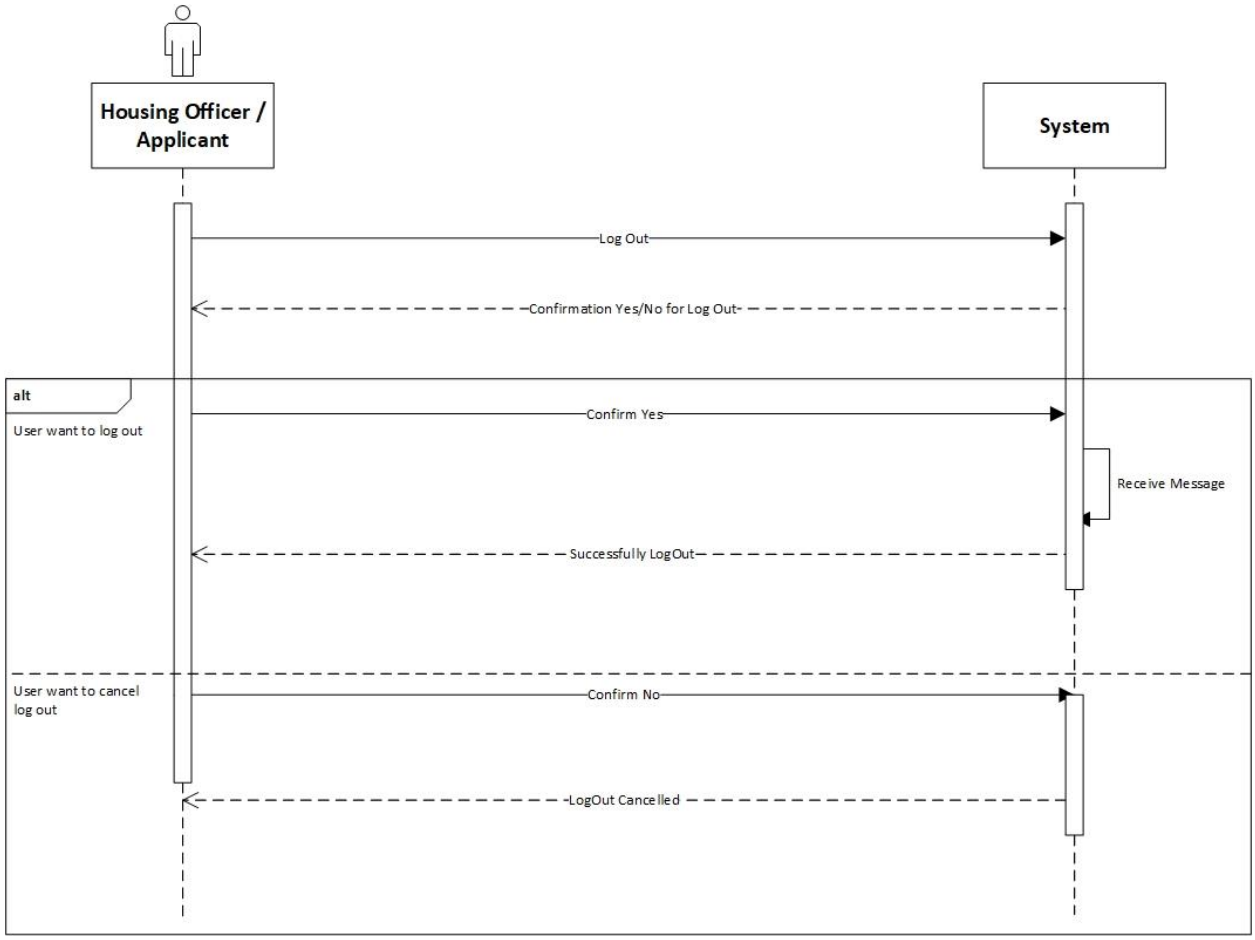


Prepared by: Luh Wulandari Maharani

Cross References	Change Password
Operation	Enter current password
Responsible	To change the password
Pre-conditions	The new password must be available
Post-conditions	Successfully changed password

Cross References	Change Password
Operation	Enter current password
Responsible	To change the password
Pre-conditions	The user must be enter the new password again to confirm
Post-conditions	Fill again the form with the new password

3. Log Out

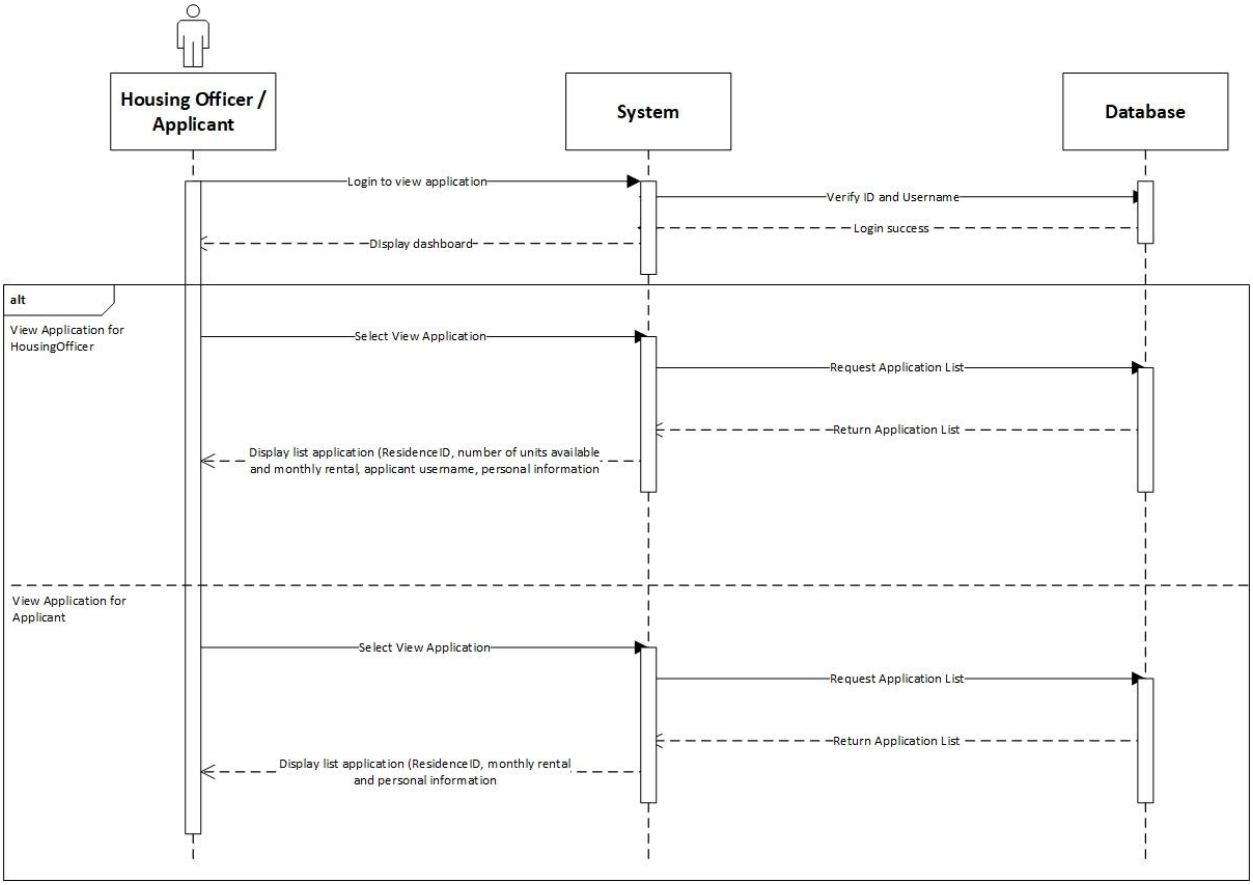


Prepared by: Luh Wulandari Maharani

Cross References	Log Out
Operation	User want to log out
Responsible	To log out from the system
Pre-conditions	The user accepts that they want to log out
Post-conditions	Successfully log out

Cross References	Log Out
Operation	Cancel to log out
Responsible	To cancel log out from the system
Pre-conditions	The user cancel log out by click the “No” option
Post-conditions	Log out cancelled

4. View Applications



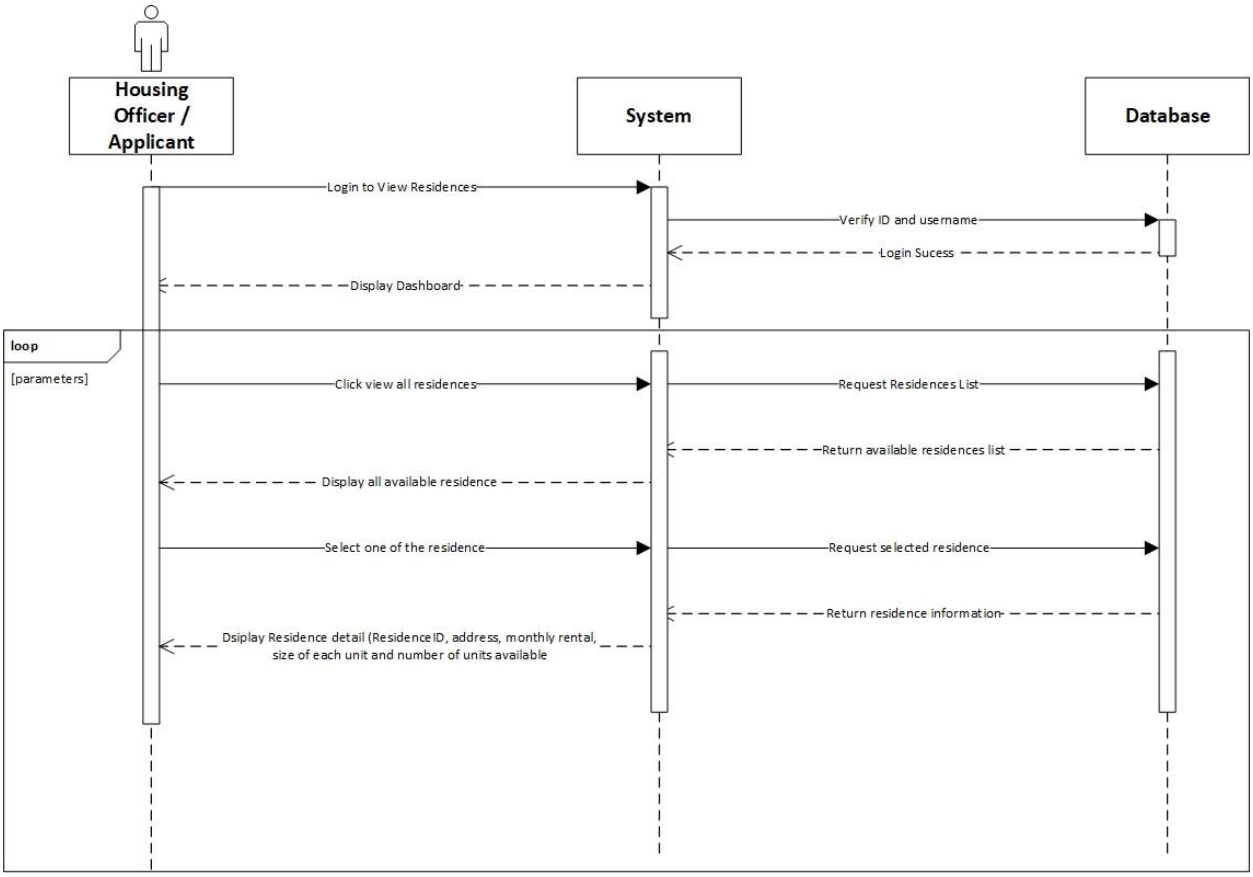
Prepared by: Luh Wulandari Maharani

Cross References	View Applications
Operation	Login with username and password
Responsible	To get access to view the applications
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	View Applications
Operation	View Application in Housing Officer
Responsible	To view a list for the Residence that Housing Officer is responsible
Pre-conditions	The application object must be available
Post-conditions	The list of application with status for the Residence that the Housing Officer is responsible, showing the residence ID, number of units available, monthly rental, application username and personal information

Cross References	View Applications
Operation	View Application in Applicant
Responsible	To view a list of application that have been made for applicant
Pre-conditions	The application object must be available
Post-conditions	The list of application that have been made by the applicant, showing the residence ID, monthly rental and personal information

5. View Residences



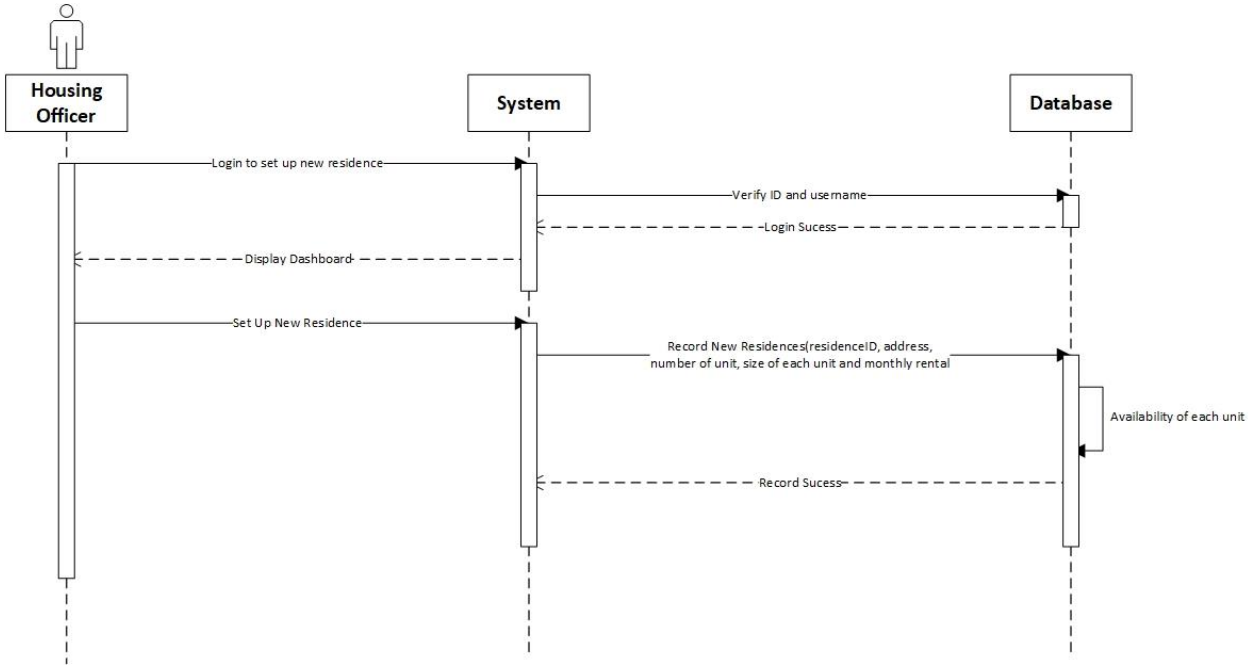
Prepared by: Luh Wulandari Maharani

Cross References	View Residences
Operation	Login with ID and username
Responsible	To access the main page
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	View Residences
Operation	Click view all residences
Responsible	To get all list of the residences
Pre-conditions	The residence object must be available
Post-conditions	Success to display all residences of all residences

Cross References	View Residences
Operation	Select the residence to view
Responsible	To get information about selected residences
Pre-conditions	The residence ID must be available
Post-conditions	Success to display detail information about the selected residences

6. Set Up New Residences

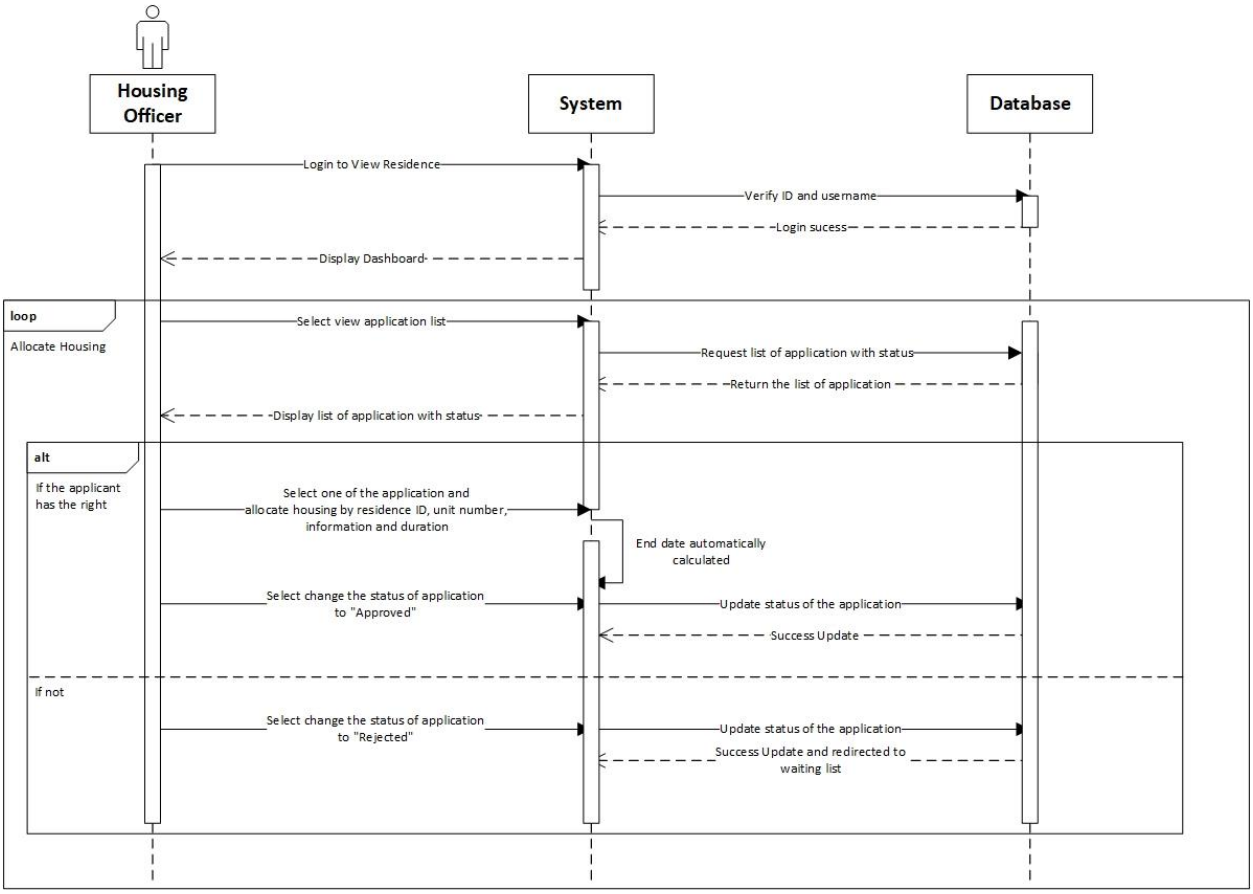


Prepared by: Luh Wulandari Maharani

Cross References	Set Up New Residences
Operation	Login with ID and username
Responsible	To access the main page
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	Set Up New Residences
Operation	Set up new residences
Responsible	To set up the new residences by input the residenceID, address, number of units available, size of each unit and monthly rental
Pre-conditions	Object residenceID, address, number of units available, size of each unit and monthly rental must be available
Post-conditions	New residences was successfully added to the system

7. Allocate Housing



Prepared by: Luh Wulandari Maharani

Cross References	Allocate Housing
Operation	Login with ID and username
Responsible	To access the main page
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

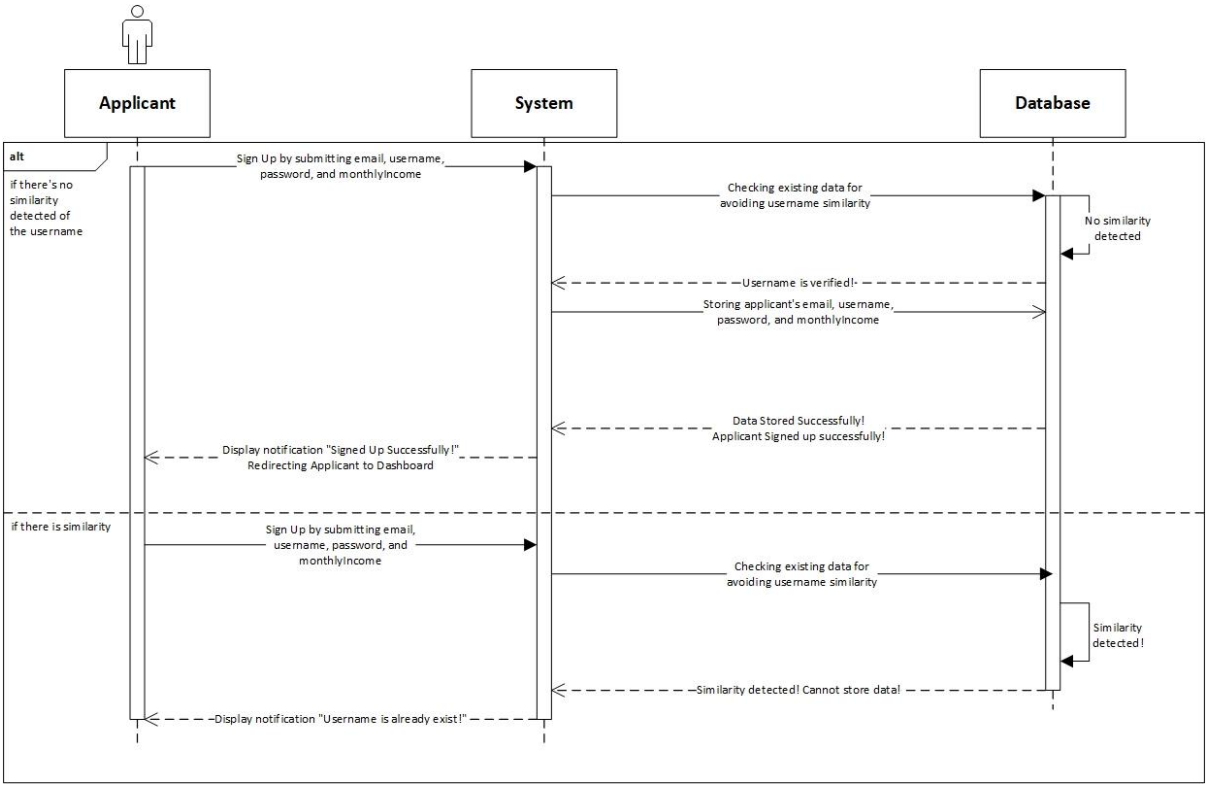
Cross References	Allocate Housing
Operation	Select view application list
Responsible	To get the list of all application
Pre-conditions	The application object must be available
Post-conditions	Success displayed list of all application with status

Cross References	Allocate Housing
Operation	Select one of the application and allocate the housing
Responsible	To allocate the housing for an application
Pre-conditions	Object residenceID, unit number, from date and duration must be available
Post-conditions	Success create allocation object based on data input

Cross References	Allocate Housing
Operation	Select to changed status of to be “Approved”
Responsible	To change the status to “Approved”
Pre-conditions	Application object must be available
Post-conditions	Success changed the application status

Cross References	Allocate Housing
Operation	Select to changed status of to be “Rejected”
Responsible	To change the status to “Rejected”
Pre-conditions	Application object must be available
Post-conditions	Success changed the application status and redirected to waiting list

8. Sign Up Applicant

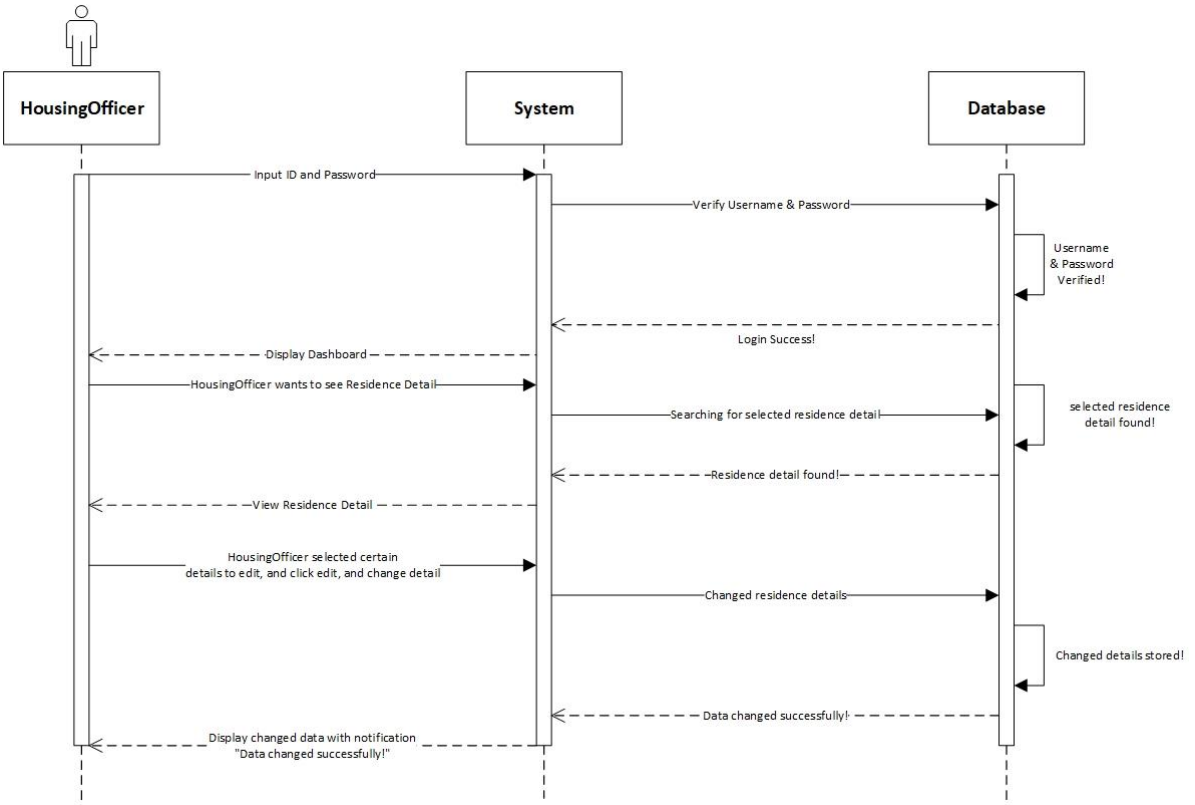


Prepared by: Rivaldo Bagus Soepardhy

Cross References	Sign up Applicant
Operation	Sign up with email, username, password, and monthlyIncome
Responsible	To be registered in system and able to access the main page
Pre-conditions	• Email must be available • Username must be available • Password must be available • MonthlyIncome must be available
Post-conditions	• Username is verified (no similarity detected) • Registered in System • Display dashboard

Cross References	Sign up Applicant
Operation	Sign up with email, username, password, and monthlyIncome
Responsible	To be registered in system and able to access the main page
Pre-conditions	• Email must be available • Username must be available • Password must be available • MonthlyIncome must be available
Post-conditions	• Username is not verified (already existed in system) • Applicant must re-enter new username.

9. Edit Residence Detail

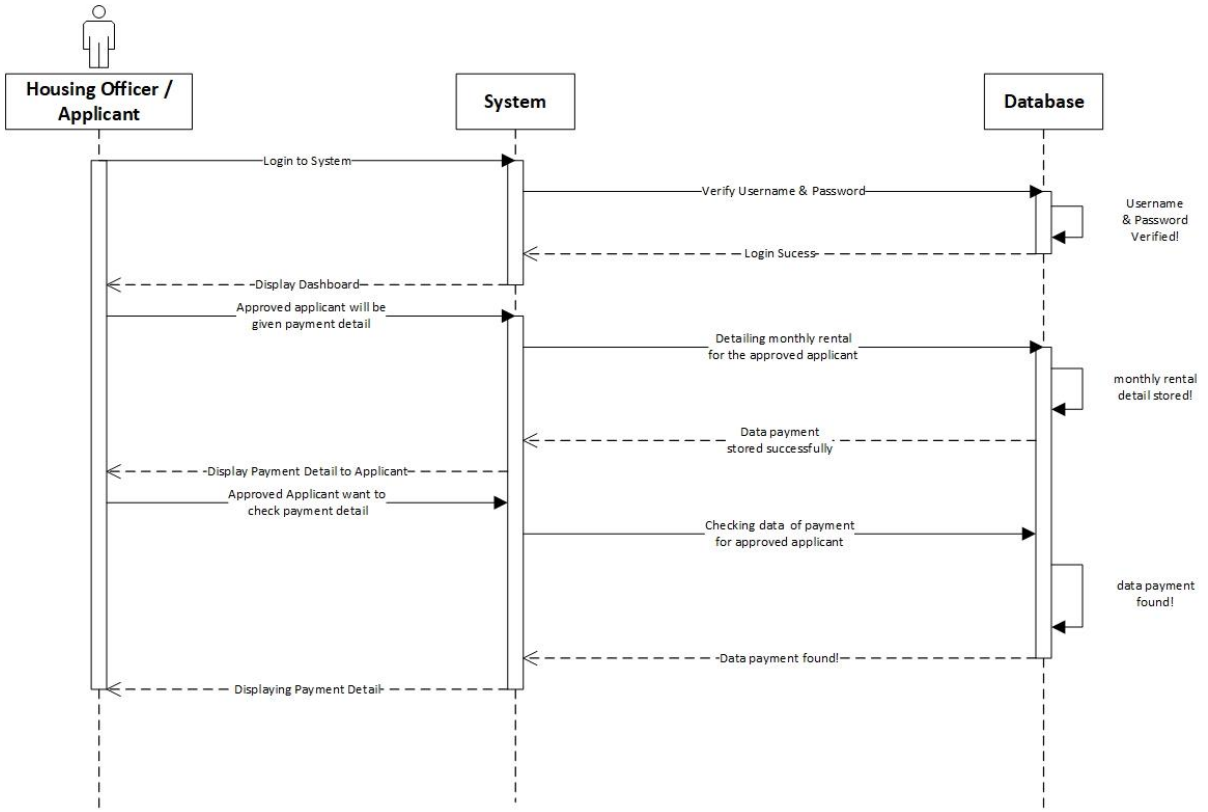


Prepared by: Rivaldo Bagus Soepardhy

Cross References	Edit Residence Detail
Operation	Login with username and password
Responsible	To get access to view the applications
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	Edit Residence Detail
Operation	Edit residenceID, address, numUnits, sizePerUnit, monthlyRental
Responsible	To change certain Residence Detail
Pre-conditions	We will need **one of** or **all of** the details below: • Email must be available • Username must be available • Password must be available • MonthlyIncome must be available
Post-conditions	Residence Detail changed successfully

10. Payment Detail



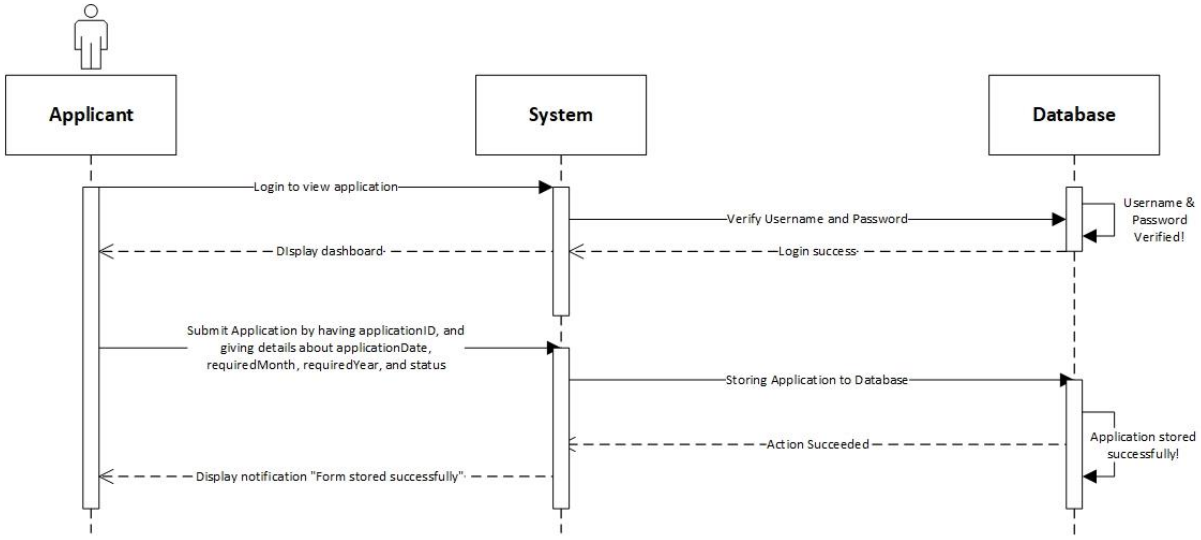
Prepared by: Rivaldo Bagus Soepardhy

Cross References	Payment Detail
Operation	Login with username and password
Responsible	To get access to view the applications
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	Payment Detail
Operation	Entering Payment Detail (payment rent)
Responsible	To store payment detail of applicants monthly rent
Pre-conditions	• HousingOfficer must already have the exact amount of monthly rent to be entered • Applicants has already live in the residence
Post-conditions	Payment Detail stored Successfully, and HousingOfficer can preview the result immediately.

Cross References	Payment Detail
Operation	View Payment Detail
Responsible	To see applicants amount of monthly rent payment
Pre-conditions	• HousingOfficer must already enter the payment detail • Applicants has already live in the residence
Post-conditions	Applicants can see exactly amount of payment rent they need to pay.

11. Submit Application

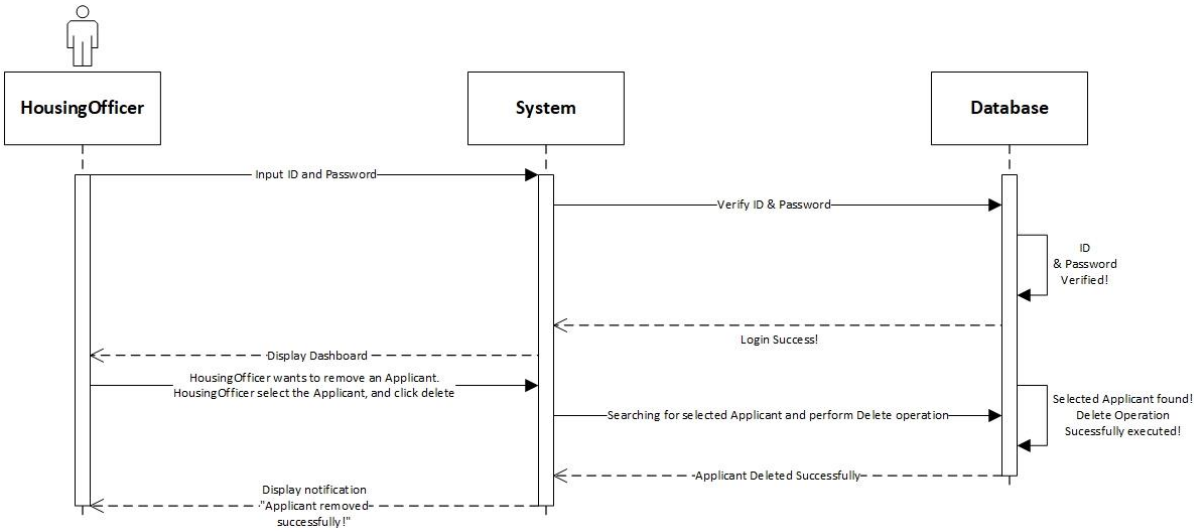


Prepared by: Rivaldo Bagus Soepardhy

Cross References	Submit Application
Operation	Login with username and password
Responsible	To get access to view the applications
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	Submit Application
Operation	Submit applicationID, applicationDate, requiredMonth, requiredYear, and status
Responsible	To submit applicant's application to the database
Pre-conditions	We will need **all of** the details below: • applicationID will be given by system automatically • applicationDate must be available • requiredMonth must be available • requiredYear must be available • status will be given by system automatically
Post-conditions	Application will be stored successfully, and will be on waiting list for the approval & arrangement by HousingOfficer.

12. Delete Applicant



Prepared by: Rivaldo Bagus Soepardhy

Cross References	Delete Applicant
Operation	Login with ID and username
Responsible	To access dashboard, and delete applicant
Pre-conditions	• Username must be available • Password must be available
Post-conditions	• Username is matched • Password must be match based on user's password input • Display dashboard

Cross References	Delete Applicant
Operation	Delete Applicant
Responsible	To remove an applicant
Pre-conditions	The applicant object must be available, and the applicant is no longer in place (checkout)
Post-conditions	Applicant object will be removed successfully

Tasks Division

Required Behaviour	Member's Name
HTML and CSS script for design the website menu	Aldo
PHP script for login and logout	Aldo
PHP script for sign up	Wulan
PHP script to change password	Aldo
HTML and CSS script for how the data display	Wulan
PHP script for edit residence detail, delete the applicant and residence detail	Aldo & Wulan
PHP script for payment detail	Aldo & Wulan
PHP script for wishlist menu	Wulan