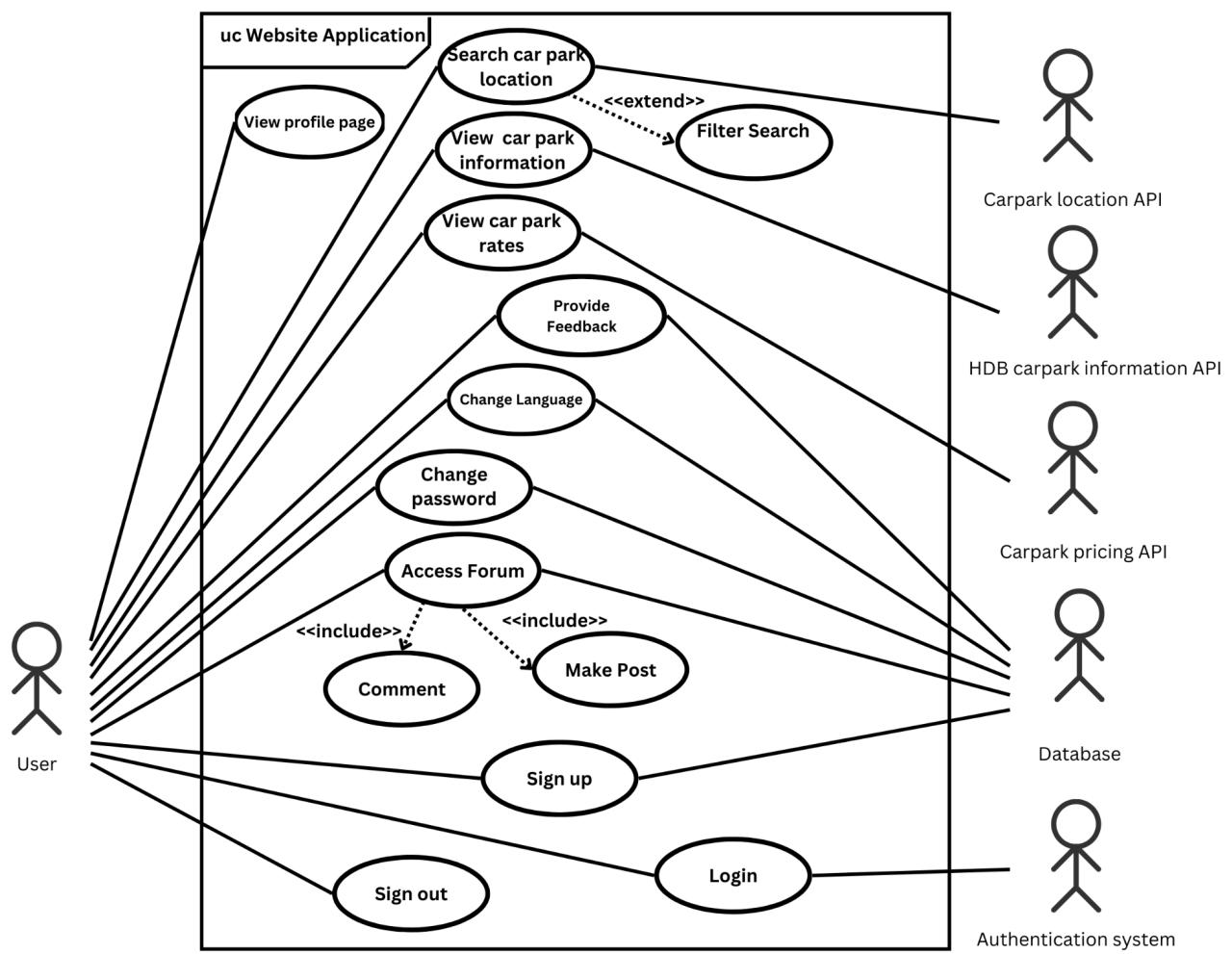


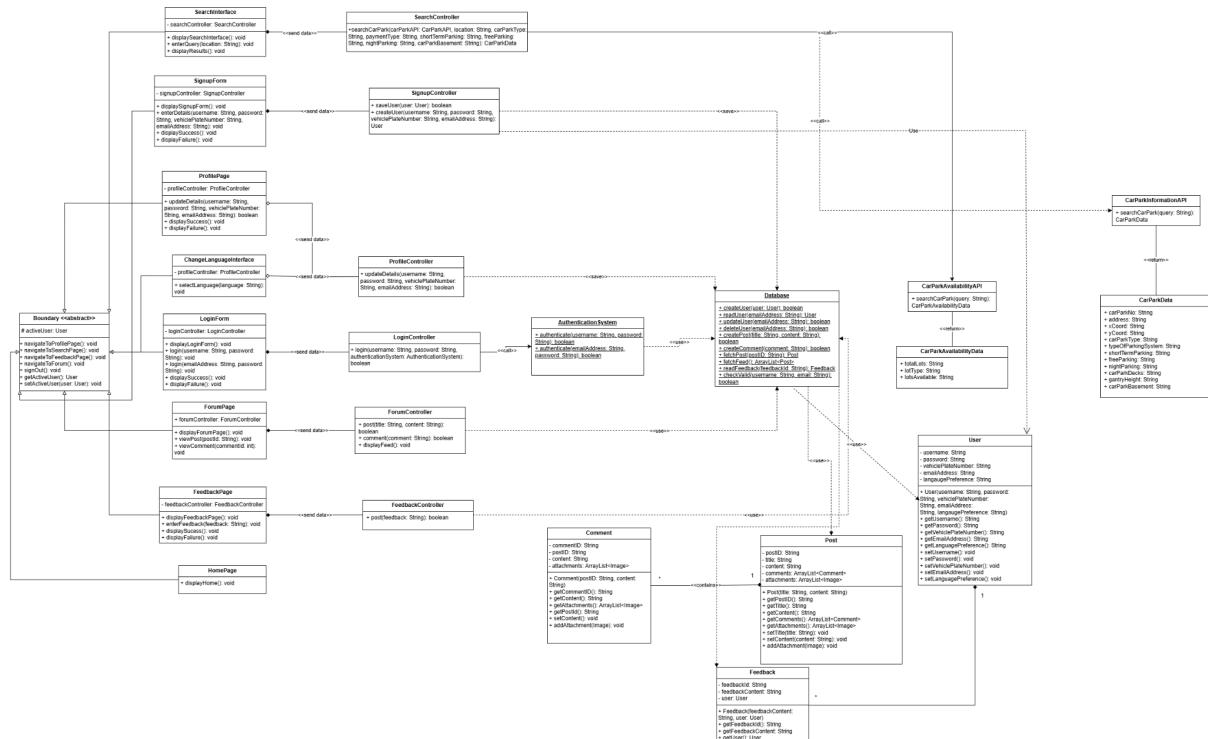
# SC2006 FDAE TEAM 2 LAB 3

<b>USE CASE DIAGRAM.....</b>	<b>2</b>
<b>CLASS DIAGRAM.....</b>	<b>3</b>
<b>SEQUENCE DIAGRAM.....</b>	<b>4</b>
1. Sign Up.....	4
2. Login and Sign Out.....	4
3. Change password.....	5
4. View profile page.....	6
5. Search car park location (extend to) -> filter search.....	6
6. View car park information.....	7
7. View car park rates.....	8
8. Give feedback.....	8
9. View forum (posting comments & pictures).....	9
10. Change language.....	10
<b>DIALOG MAP.....</b>	<b>11</b>
<b>SYSTEM ARCHITECTURE.....</b>	<b>12</b>
<b>SYSTEM SKELETON.....</b>	<b>13</b>
LAB3\src.....	13
LAB3\server.....	14
<b>SYSTEM SKELETON FOR PAGES.....</b>	<b>15</b>
1. Login page.....	15
2. Signup page.....	15
3. Home page.....	16
4. Profile page.....	16
5. Feedback page.....	17
6. Admin Dashboard page.....	17
7. Car Park finding page.....	18
8. Car Park detail page.....	18

## USE CASE DIAGRAM

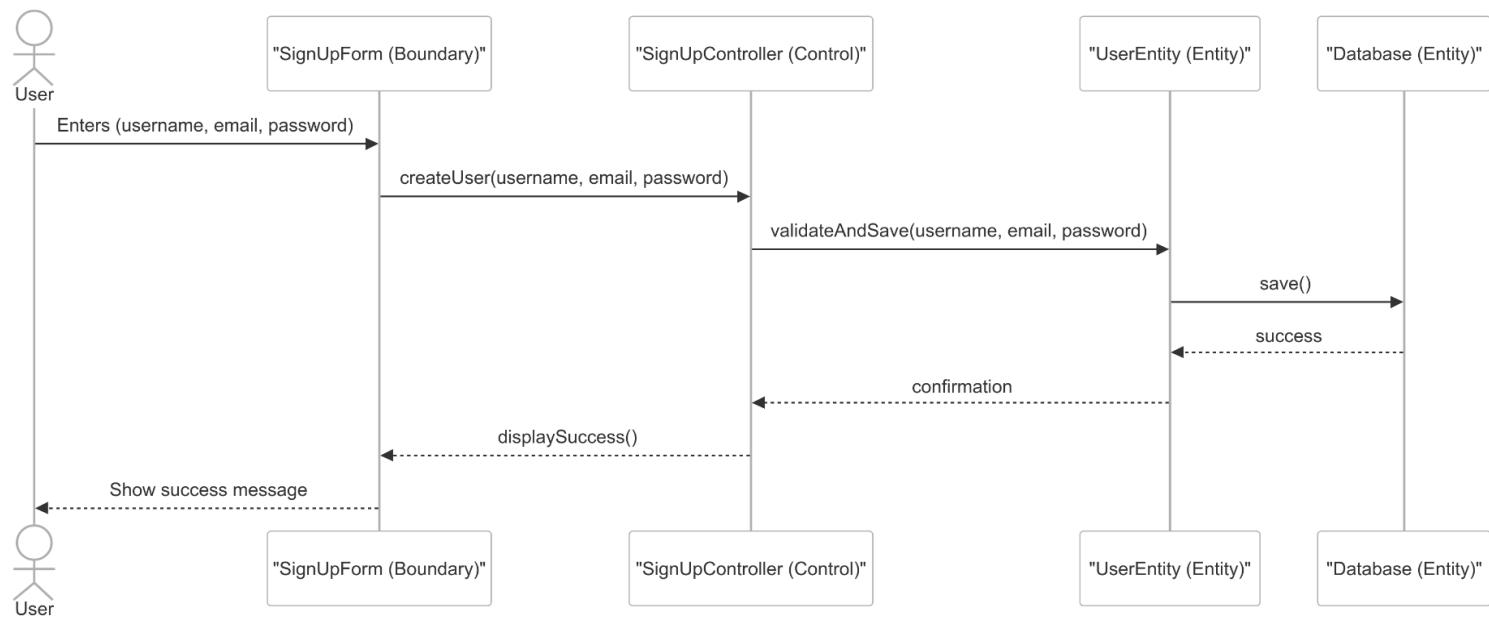


## **CLASS DIAGRAM**

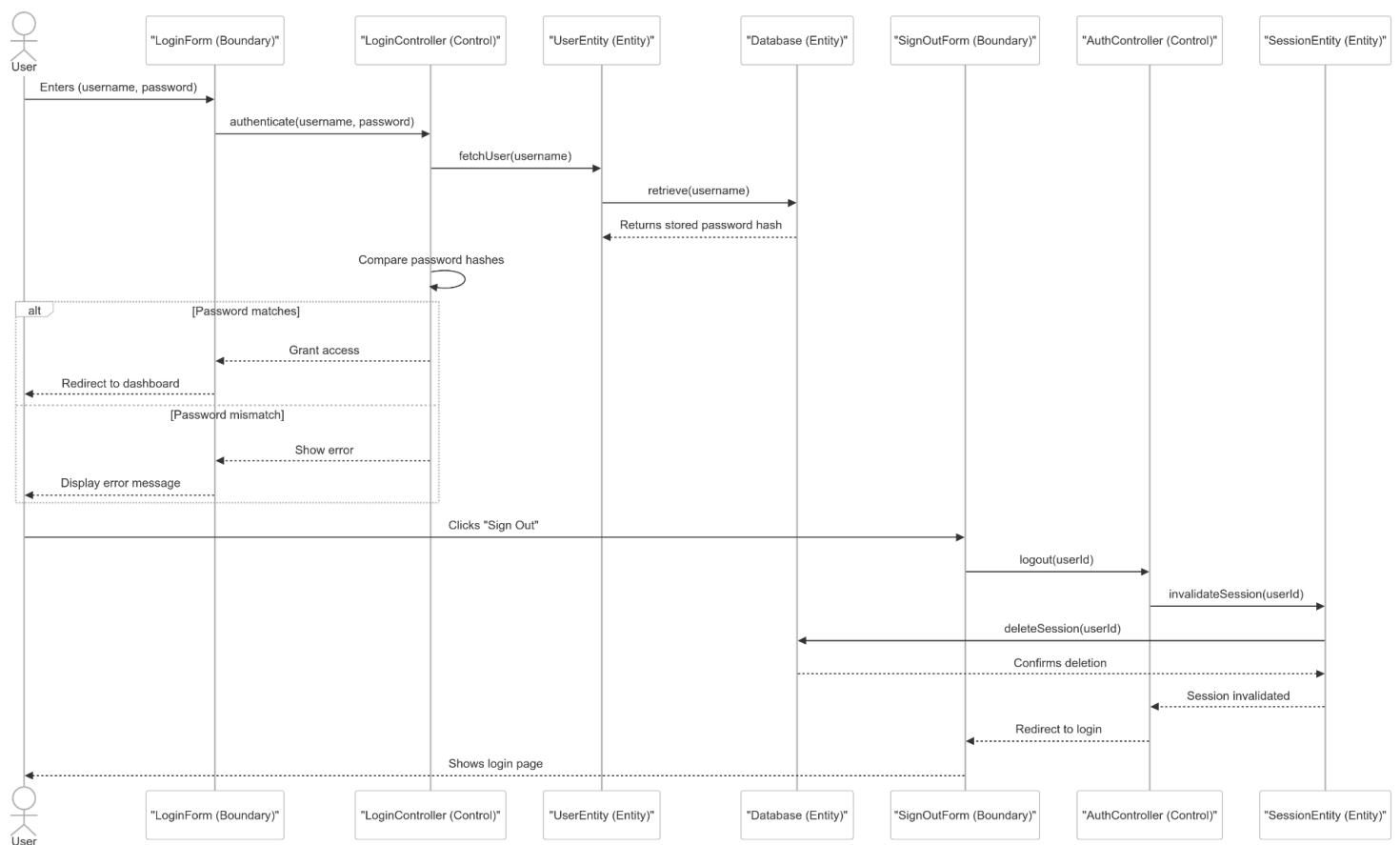


## SEQUENCE DIAGRAM

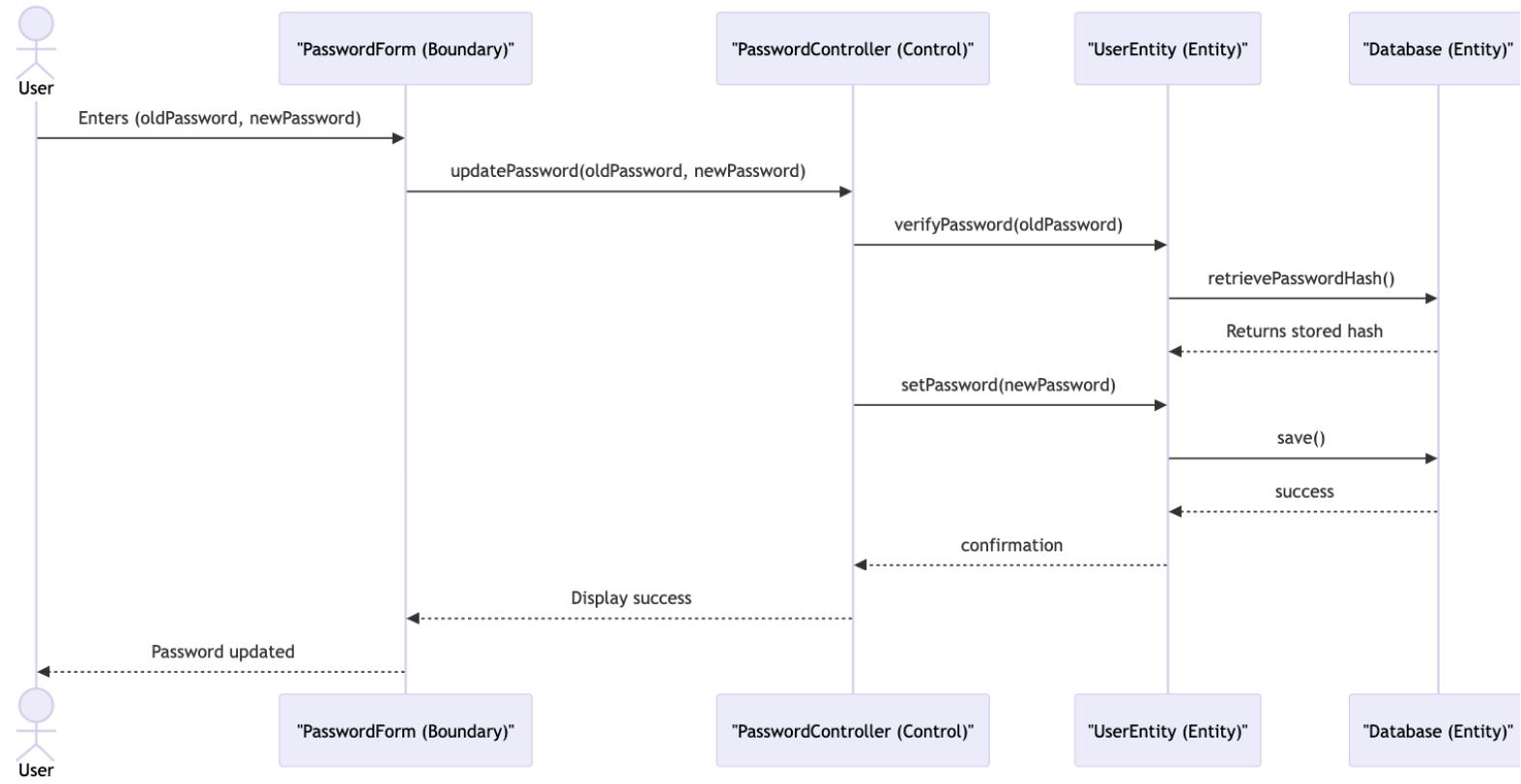
### 1. Sign Up



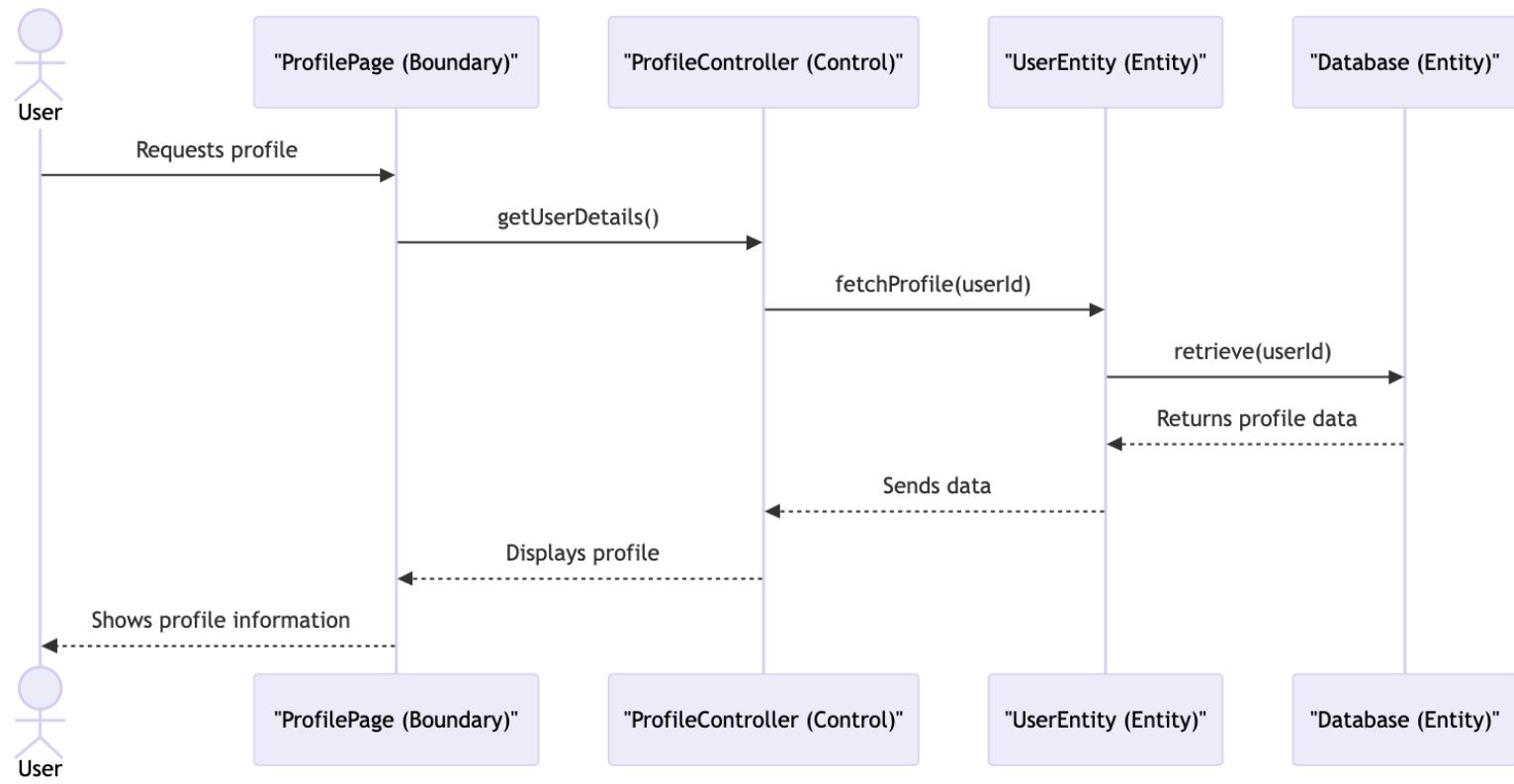
### 2. Login and Sign Out



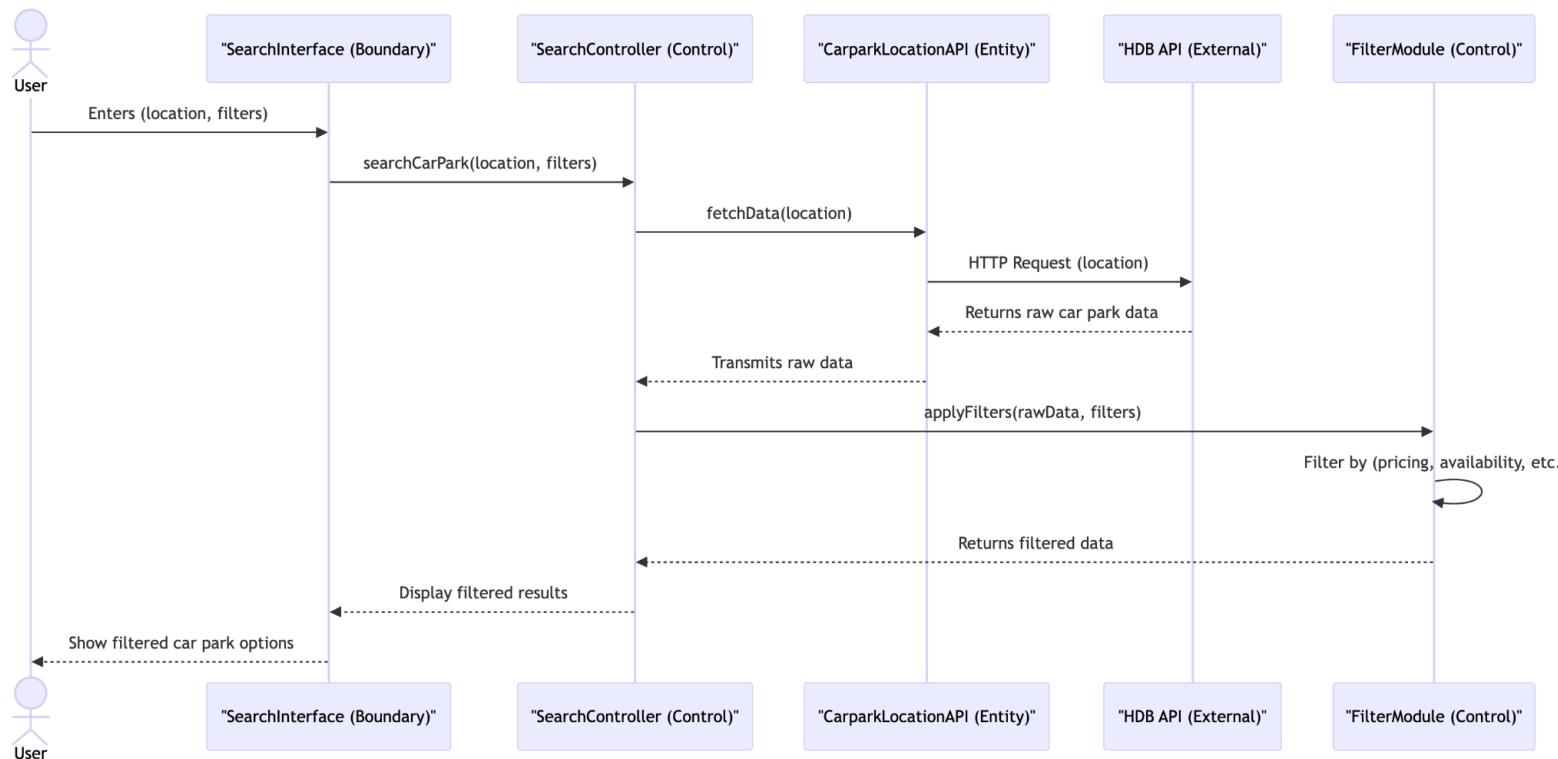
### 3. Change password



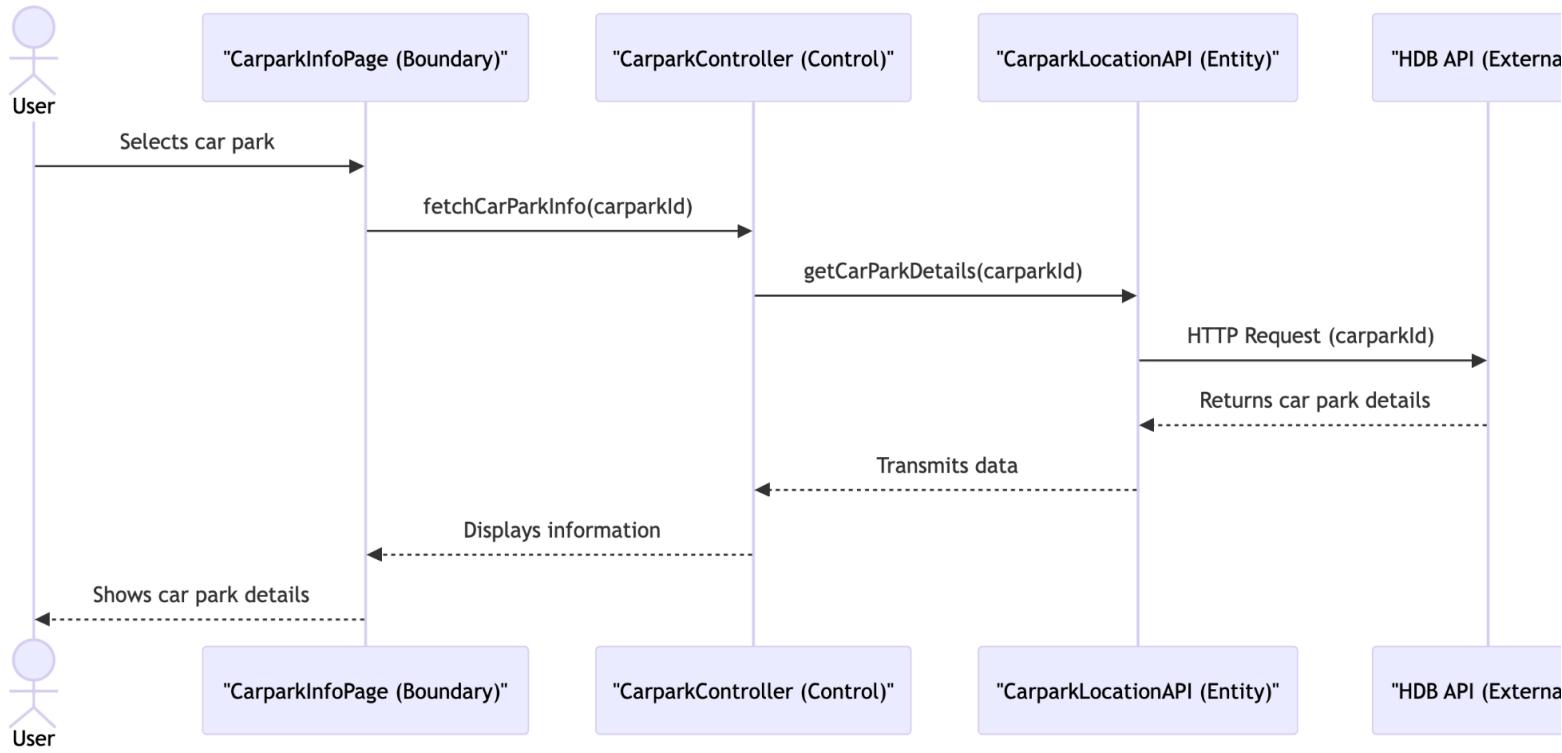
#### 4. View profile page



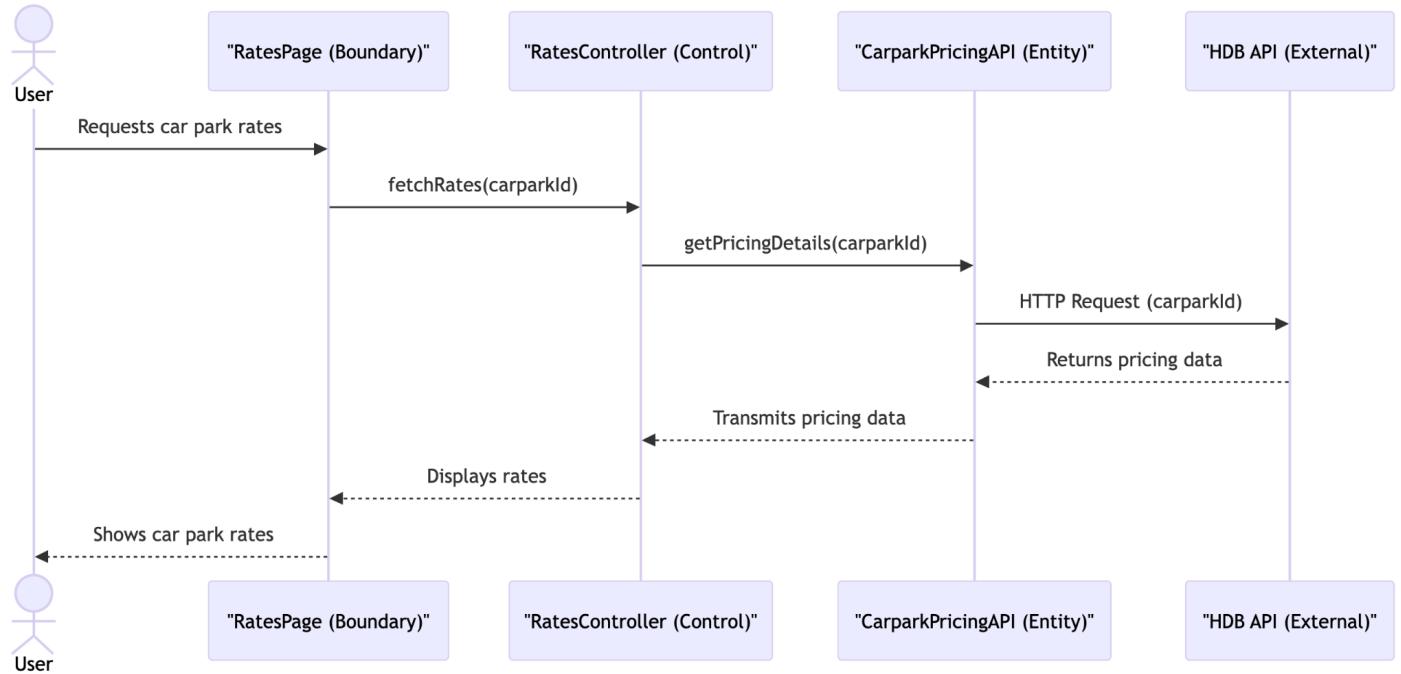
#### 5. Search car park location (extend to) -> filter search



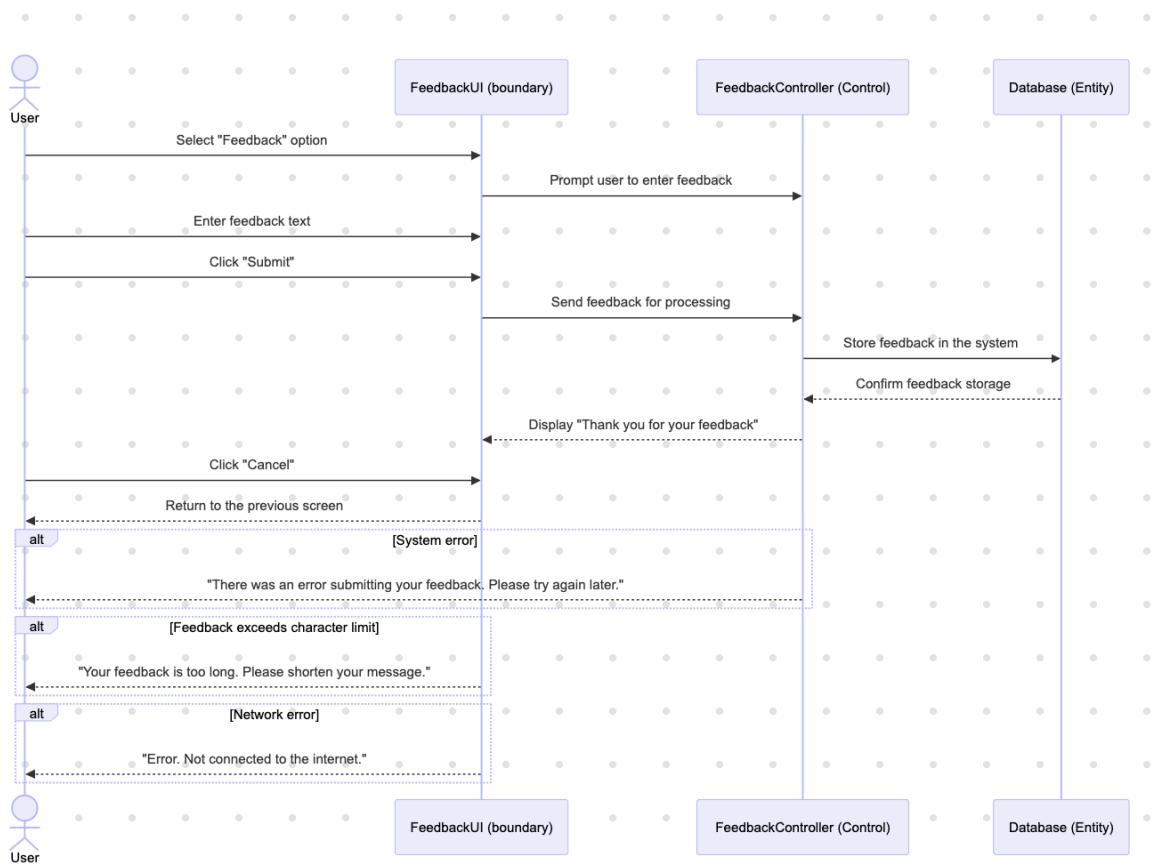
## 6. View car park information



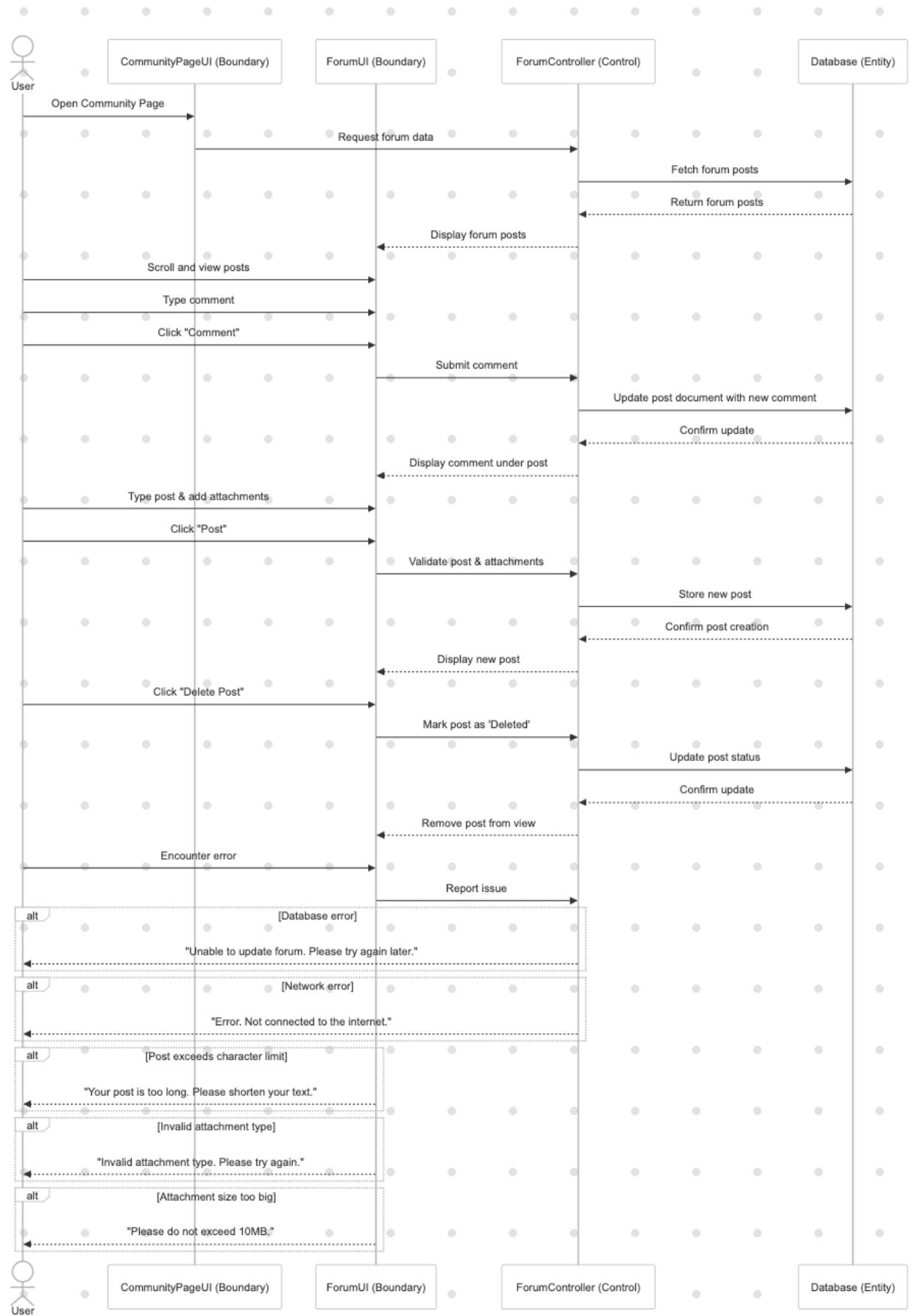
## 7. View car park rates



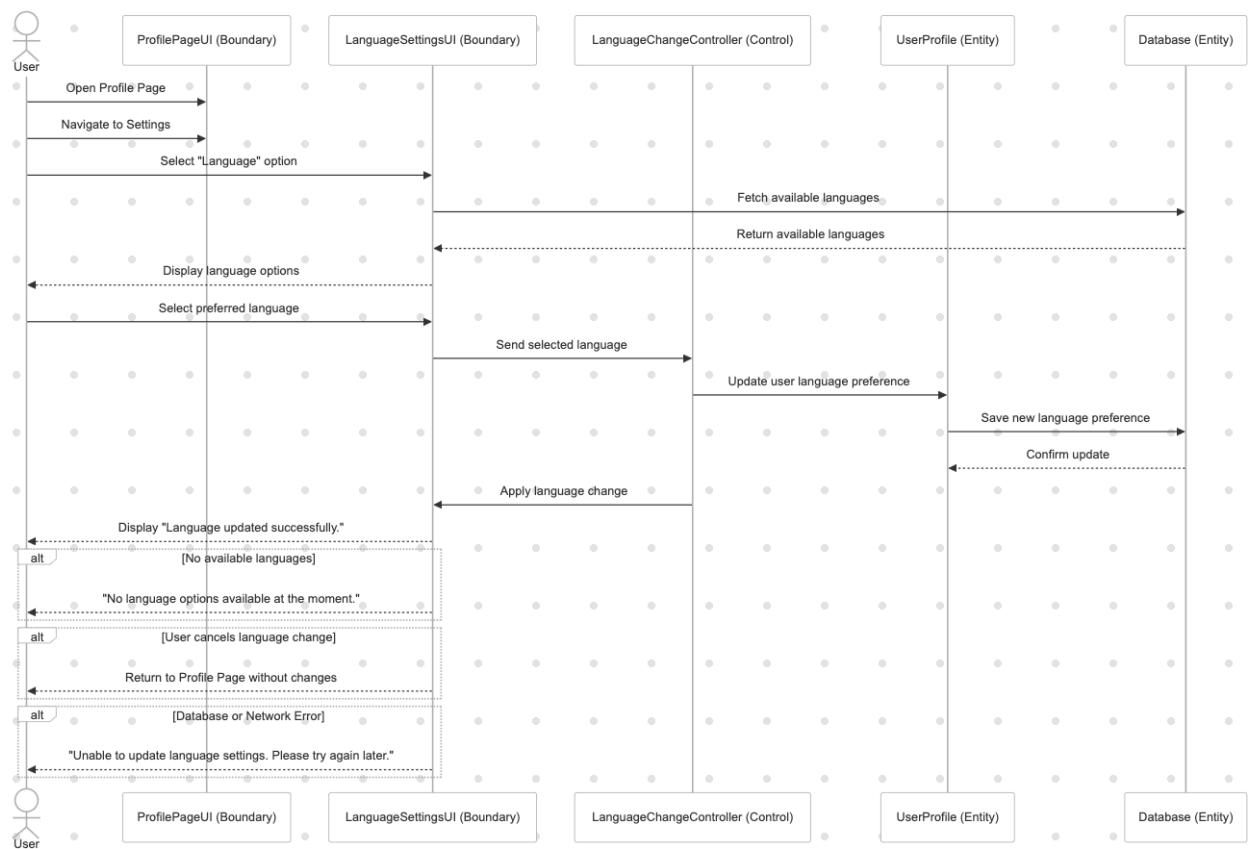
## 8. Give feedback



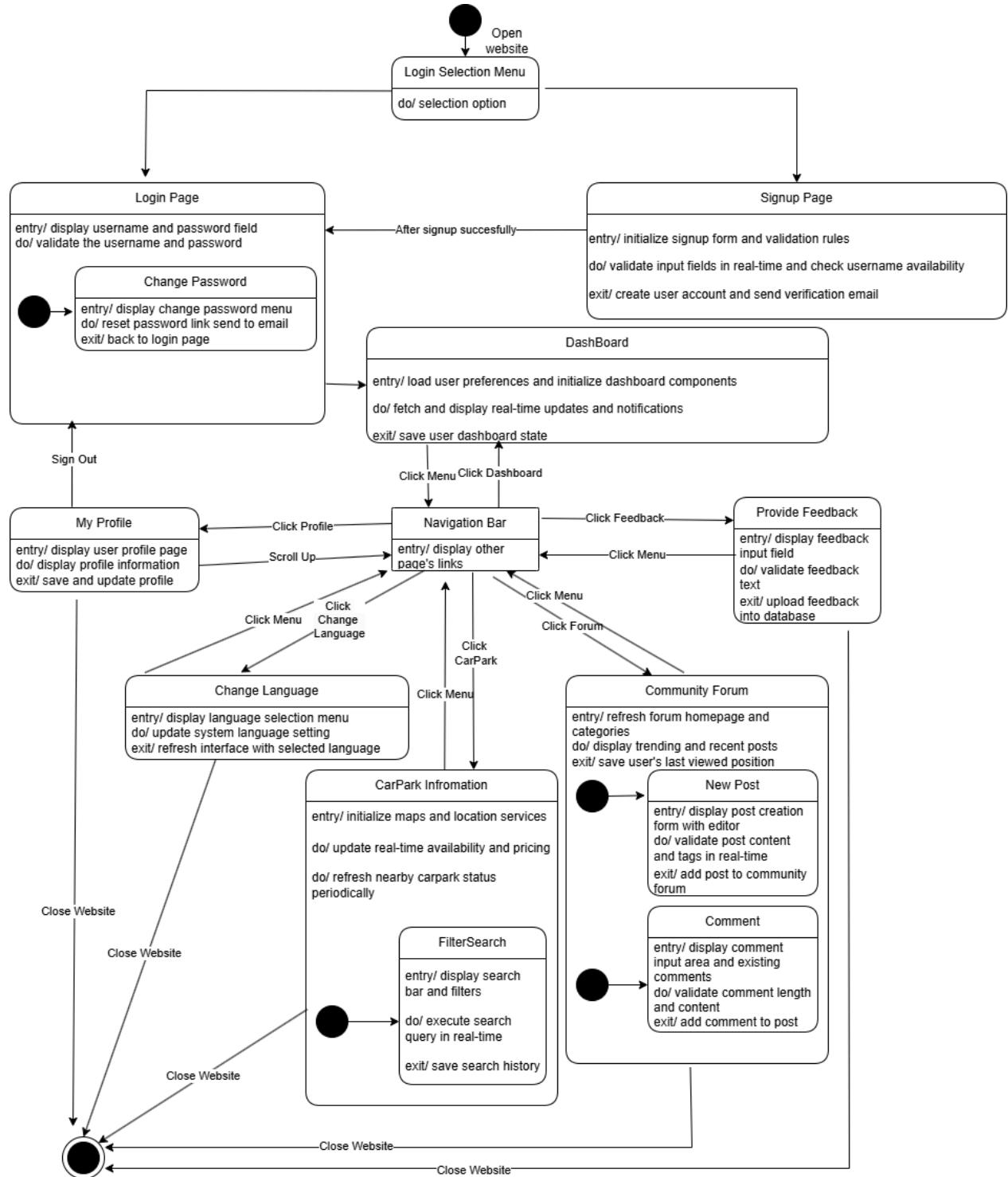
## 9. View forum (posting comments & pictures)



## 10. Change language

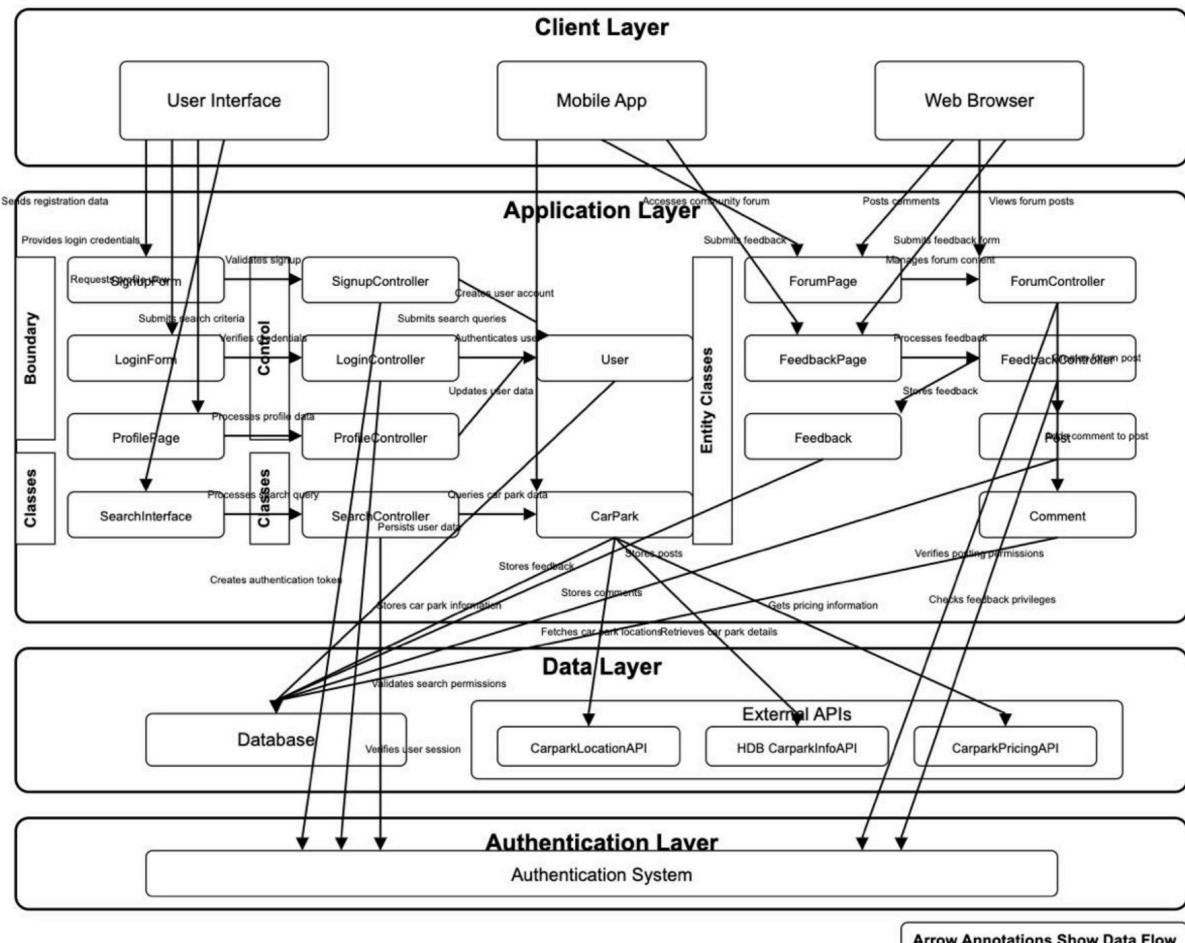


## DIALOG MAP



## SYSTEM ARCHITECTURE

### Car Park Application System Architecture



## **SYSTEM SKELETON**

lab3/app/src

```
├── App.jsx
├── main.jsx

└── assets/

└── auth/
    └── AuthWrapper.jsx

└── components/
    ├── admin/
    │   ├── FeedbackStats.css
    │   ├── FeedbackStats.jsx
    │   ├── FeedbackTable.css
    │   └── FeedbackTable.jsx

    ├── feedback/
    │   ├── FAQSection.css
    │   ├── FAQSection.jsx
    │   ├── FeedbackForm.css
    │   ├── FeedbackForm.jsx
    │   ├── HeroSection.css
    │   ├── HeroSection.jsx
    │   ├── SupportOptions.css
    │   └── SupportOptions.jsx

    ├── Dialog.jsx
    ├── Comment.jsx
    ├── DisplayResult.jsx
    ├── Filters.jsx
    ├── Footer.jsx
    ├── Header.jsx
    ├── Logo.jsx
    ├── ModeToggle.jsx
    ├── SearchResult.jsx
    └── Title.jsx

└── context/
    └── DarkModeProvider.jsx

└── lang/
    └── LangWrapper.jsx
    └── i18n.js

└── pages/
    ├── AdminDashboard.jsx
    ├── EditPost.jsx
    └── FeedbackPage.jsx
```

```
    ├── Forum.jsx
    ├── HomePage.jsx
    ├── Index.jsx
    ├── LicensePage.jsx
    ├── LoadingPage.jsx
    ├── LoginPage.jsx
    ├── PostDetail.jsx
    ├── ProfilePage.jsx
    ├── SearchPage.jsx
    └── SignUpPage.jsx

    └── styles/
        ├── AdminDashboard.css
        ├── index.css
        ├── LoadingPage.css
        └── SignUpPage.css
```

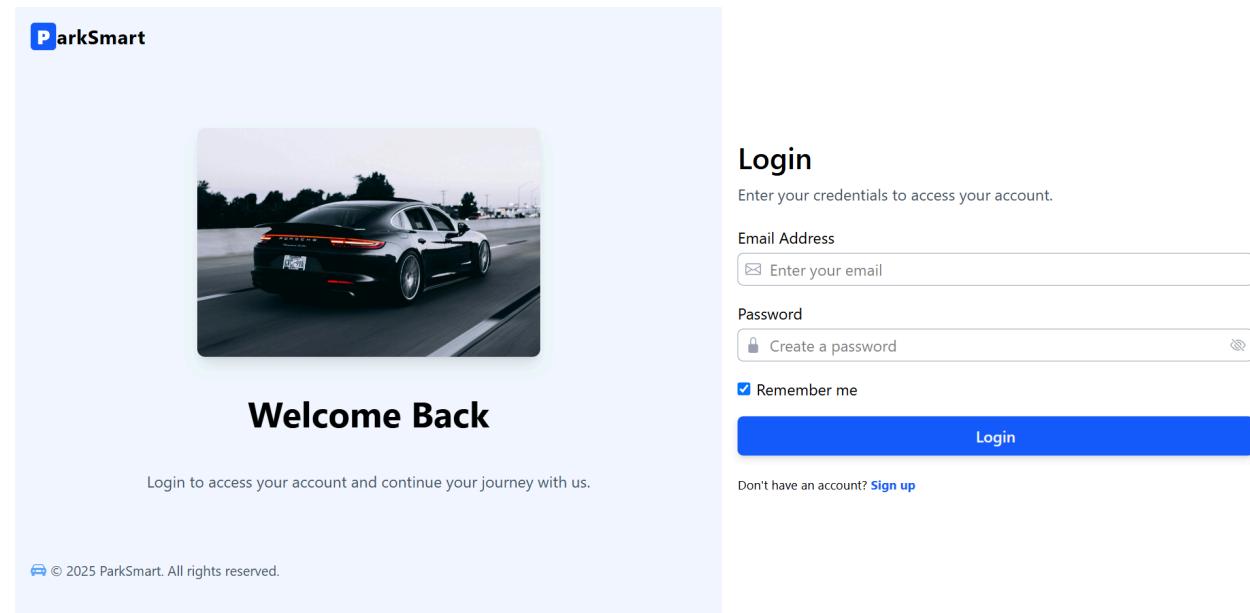
### lab3\server

```
    ├── package-lock.json
    ├── package.json
    └── server.js
```

## **SYSTEM SKELETON FOR PAGES**

### 1. Login page

Users may access their accounts by entering their credentials if they have previously registered. Upon logging in or signing up, users are issued JSON Web Tokens (JWT) so they do not need to relogin for up to an hour even after exiting the website. If users have not created an account, they may navigate to the signup page.



ParkSmart

Welcome Back

Login to access your account and continue your journey with us.

© 2025 ParkSmart. All rights reserved.

**Login**

Enter your credentials to access your account.

Email Address

Enter your email

Password

Create a password 

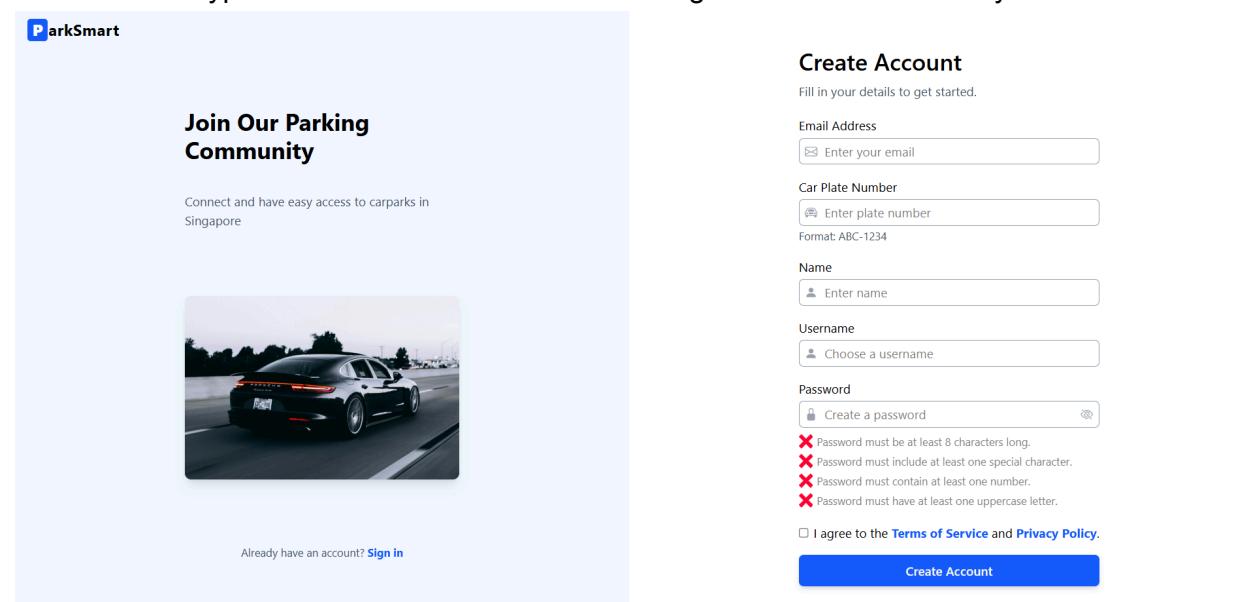
Remember me

**Login**

Don't have an account? [Sign up](#)

### 2. Signup page

New users may create an account by completing the registration form with their required information. Their password will dynamically be checked for all requirements listed before allowing the user to create an account to ensure a strong password is picked. The password is salted with BCrypt and the hash is stored in the MongoDB database securely.



ParkSmart

Join Our Parking Community

Connect and have easy access to carparks in Singapore

Enter your email

Enter plate number Format: ABC-1234

Enter name

Choose a username

Create a password 

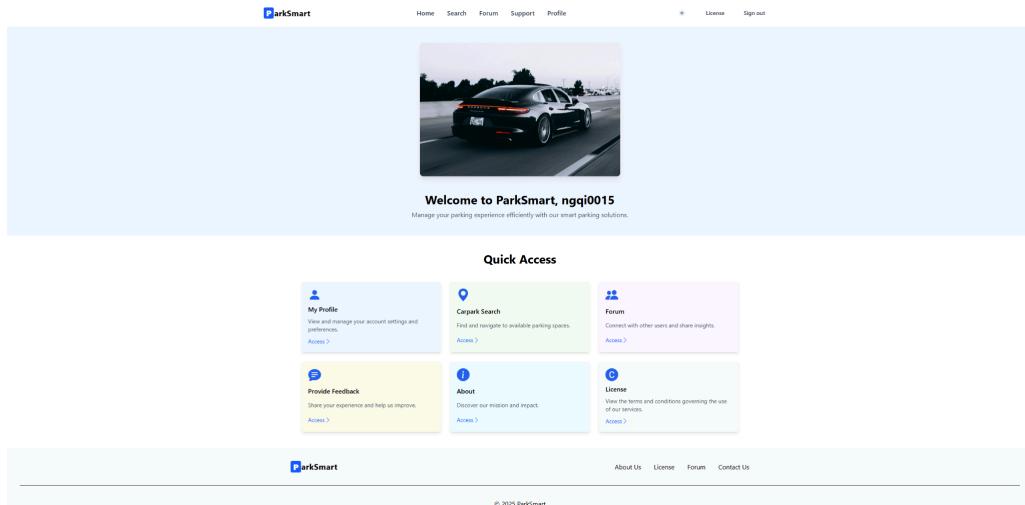
Password must be at least 8 characters long.  
 Password must include at least one special character.  
 Password must contain at least one number.  
 Password must have at least one uppercase letter.

I agree to the [Terms of Service](#) and [Privacy Policy](#).

**Create Account**

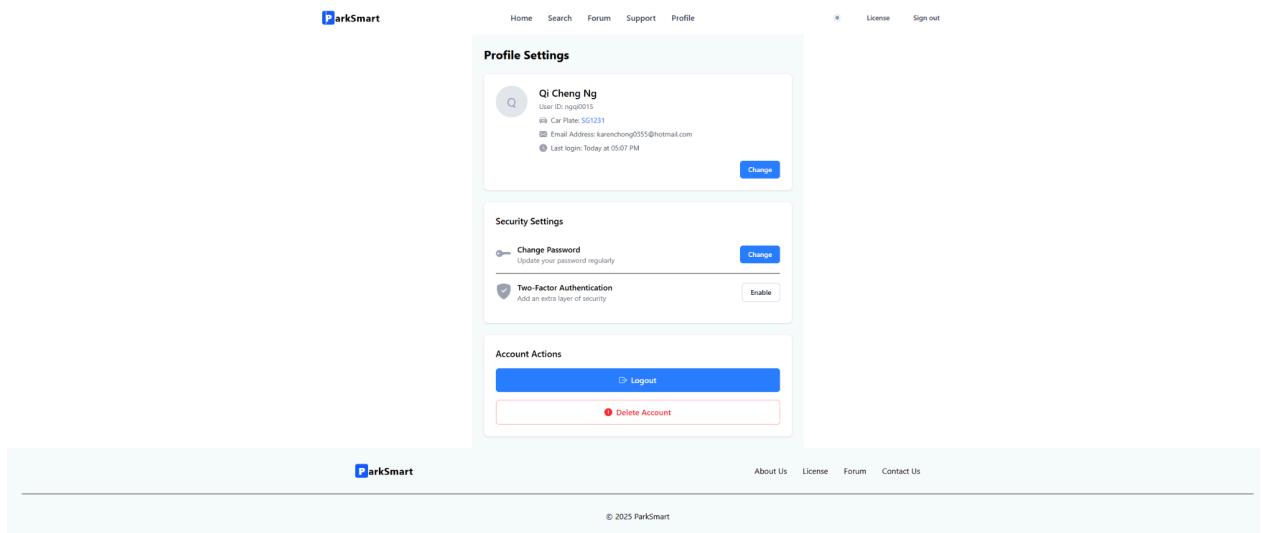
### 3. Home page

The home page provides access to all ParkSmart functions including profile, car park search, forum, and more. The persistent top banner across all pages allows for quick navigation between features, and for users to sign out at any time.



### 4. Profile page

Users may view and modify their personal information and account settings in this section.



## 5. Feedback page

This page allows users to contact support and submit feedback regarding their experience with the application.

The screenshot shows the ParkSmart Feedback page. At the top, there's a navigation bar with links for Home, Search, Forum, Support, Profile, License, and Sign out. Below the navigation is a search bar with placeholder text "Search for help articles..." and a "Search" button. A section titled "How can we help you?" offers three support paths: "FAQs" (with a question mark icon), "Email Support" (with an envelope icon), and "Phone Support" (with a phone icon). Below these are "Frequently Asked Questions" with expandable sections for "How frequently is the carpark availability data updated?", "Do you store user data, and why do you request location access?", and "Why does the carpark availability data sometimes return errors?". A large central box is labeled "Send Us Your Feedback" and contains fields for Name (text input), Email (text input), Subject (dropdown menu with "Select a subject"), and Message (text area). Below these fields is a rating scale from 1 to 5 with the number "1" highlighted. At the bottom of the form is a "Submit Feedback" button.

## 6. Admin Dashboard page

Administrators can monitor user reviews and feedback through this interface. It automatically calculates the average rating of all customers.

The screenshot shows the Admin Dashboard. At the top left, it displays "Feedback Dashboard" and "Total Feedback" with the value "1". To its right, it shows "Average Rating" with the value "5.0". Below these metrics is a table titled "Recent Feedback" with columns for Date, Name, Subject, Message, and Rating. The single entry in the table is dated 3/25/2025, submitted by NG QI CHENG, with a subject of "suggestion" and a message stating "Very good I love this web <3". The rating is listed as "5/5".

Date	Name	Subject	Message	Rating
3/25/2025	NG QI CHENG	suggestion	Very good I love this web <3	5/5

## 7. Car Park finding page

The website enables users to locate nearby parking facilities based on their searched location and specific preferences, which they may indicate via the filter widget. Upon visiting the page, users are prompted to share their location for a default search. They may filter results according to their needs and view a consolidated list of available parking spots with key details, such as free parking and availability. Each location summary may be expanded for a full view of all relevant car park information. An interactive map allows users to explore car parks visually.

The screenshot shows the ParkSmart website interface. At the top, there is a navigation bar with links for Home, Search, Forum, Support, Profile, License, and Sign out. Below the navigation is a search bar with a placeholder "Search Location" and a "Search" button. To the left of the main content area is a sidebar with a "Filters" section. The filters include:

- Free Parking:** Only free parking (checkbox)
- Night Parking:** Any (radio button)
- Available:** Available (checkbox)
- Availability:** Available (checkbox), Limited (checkbox), Full (checkbox)
- Height Restriction:** Select a minimum height (m). A slider is shown with a value of 0.5.

The main area features an interactive map of a residential area in Jurong West, Singapore. The map highlights several parking facilities with green and blue icons. A red location pin is placed on the map. Below the map is a section titled "Available Parking Lots" containing nine cards, each representing a different parking facility. The cards are arranged in two rows: the first row has five cards, and the second row has four cards. Each card includes the street name, building number, distance from the user's location, number of available spots, operating hours, height limit, and parking type (Free Parking, Electronic Parking). Buttons for "View Details" are provided for each card.

## 8. Car Park detail page

Detailed information about a selected parking facility is displayed when users select the "view details" option.

**KELANTAN LANE**

Limited

- Blk 29/30 Kelantan Lane  
0.6 km away
- P 12 / 56 spots available
- Short Term Parking: Whole Day
- Night Parking: Yes
- Surface Car Park
- Height limit: 4.5m
- Electronic Parking
- Free Parking: Sun & Ph Fr 7am-10.30pm
- Car Park Decks: 0
- Basement: No

ENG YAN COURT CAR PARK	JALAN SULTAN	KELANTAN LANE	KELANTAN LANE MSCP	BEST...
Full	Error	Limited	Available	...
LK 269/269A/269B CHENG YAN COURT CAR PARK 5 km away 0 / 28 spots available 7AM-10.30PM Height limit: 0m Electronic Parking	BLK 18/19 JALAN SULTAN 0.5 km away Unable to retrieve lot information 24 hours Height limit: 0m Coupon Parking	BLK 29/30 KELANTAN LANE 0.6 km away 12 / 56 spots available 24 hours Height limit: 4.5m Electronic Parking	BLK 31 KELANTAN LANE MSCP 0.6 km away 207 / 345 spots available 24 hours Height limit: 1.8m Electronic Parking	BLK 1/3/15/16 0.6 km away 0 / 124 spots available 7AM-10.30PM Height limit: Electronic P...
<a href="#">Parking</a>	<a href="#">Free Parking</a>	<a href="#">Free Parking</a>	<a href="#">Free Parking</a>	<a href="#">Free Parking</a>
<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>	<a href="#">View Details</a>