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CSE6224 SOFTWARE REQUIREMENTS ENGINEERING

Project Part 1

Topic: Campus Ride-Sharing Platform with Parking System Integration

Requirements Elicitation Report

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1 Requirements Elicitation Plan

1.1 Selected Elicitation Techniques

Out of the many elicitation techniques, we decided to pick 3 of the most crucial to effectively gather key specifications and user expectations for the proposed system from our stakeholders.

1. Questionnaire

This technique helps to collect general opinions and preferences regarding parking and ride sharing features.

- Cost-effective and time-efficient
- Reaches a large number of respondents quickly
- Useful for identifying common issues and feature expectations

2. Interview

One-on-one interviews were conducted with selected stakeholders, including students, system administrators, and university IT staff to share thoughts and explore specific requirements in detail.

- Allows follow-up questions and clarification
- Provides detailed, context-rich insights
- Helps understand workflows, exceptions, and stakeholder goals

3. Prototyping

Figma prototypes were developed to demonstrate possible layouts and overall of the system. These were shown to stakeholders for feedback and confirmation.

- Helps validate assumptions before implementation
- Encourages stakeholders to express preferences and UI concerns
- Useful in discovering hidden usability or feature gaps

1.2 Tools Used

The table below is the tools used to execute our elicitation plans.

Purpose	Tool	Examples / Notes
Communication	Microsoft Teams, Google Meet	For conducting interviews or focus groups
Survey Distribution	Google Forms	For distributing and collecting surveys
Note-Taking / Documentation	Microsoft Word, Google Docs, NotePad	Used to record session notes, observations
Recording / Transcription	Otter.ai, OBS Studio	Used for recording and transcribing sessions
Analysis / Categorization	Excel, Google Sheets	For requirement sorting, Kano categorization, chart generation
Collaboration	Github	To store, share, and collaborate on documents

1.3 Execution Method

1.3.1 Questionnaire Session

To collect quantitative feedback from potential users of the Campus Ride-Sharing and Parking System, an online questionnaire was conducted using Google Forms. A total of **34 valid responses** were received from students and staff of Multimedia University, Cyberjaya.

The questionnaire was designed following the Kano Model, a well-established framework for categorizing customer needs. For each system feature, participants were asked to respond to a pair of questions:

- One positive question (e.g., “If this feature exists, how would you feel?”)
- One negative question (e.g., “If this feature does not exist, how would you feel?”)

Each question used a 5-point Kano scale:

- I like
- I expect it
- I am neutral
- I can tolerate with it
- I dislike it

The questionnaire focused on 10 proposed features, such as login with student ID, illegitimate parking reports, parking space viewing, ride approval, and admin privileges. All responses were analyzed using a Kano evaluation grid to determine the correct classification of each feature: **Dissatisfiers (must-be) , Satisfiers (performance needs), or Delighters (excitement needs)**.

1.3.2 Interview Sessions

Two interviews were conducted with students representing both key user groups of the system:

1. **Driver Interview**: Conducted with Sow Chien Yee, a student who regularly drives to campus
2. **Rider Interview**: Conducted with Ng Zai Kit, a student who doesn't own a car

The interviews followed a structured format with questions categorized according to the Kano model (Dissatisfiers, Satisfiers, and Delighters) to effectively identify and prioritize requirements. Each interview lasted approximately 5-10 minutes and explored both ride-sharing and parking system features.

1.3.3 Prototype Session

A UI prototype was developed using Figma to visualize the visual design and core user interactions. This prototype was then presented to selected stakeholders for validation and feedback.

Three key stakeholders were selected based on their unique perspectives:

Goh Ming Yee – A student from the Faculty of Engineering (FOE) with prior experience using the MMU mobile application. He provided insights from an end-user perspective, focusing on usability and expectations based on existing systems.

Tan Jeng Seng – A student from the Faculty of Computing and Informatics (FCI) with a background in UI/UX design. He evaluated the prototype's layout, consistency, and user flow, offering design-oriented feedback.

Lai Zi Xuan – The project's technical developer responsible for implementing the frontend. His feedback addressed the technical feasibility of the design and potential adjustments to optimize development.

Each stakeholder reviewed the prototype and provided structured feedback, which is included along with the prototype in the appendix.

2 Elicitation Execution and Findings

2.1 Summary of Elicitation Sessions

2.1.1 Questionnaire Session

Key outcomes from the questionnaire included:

- Login functionality, real-time parking visibility, and ride approval were consistently marked as **must-have features**
- Admin tools and interactive features were rated positively as **performance enhancers**
- Gamified elements and convenience features, such as booking faculty rides or viewing car owner details, were classified as **delighters**

2.1.2 Interview Session

Summary of Key Findings:

- Drivers prioritize safety and prefer manual control over rider selection with gender filters
- Riders value convenience and automatic matching with basic verification
- Both groups are motivated by rewards and would use reporting features
- Privacy concerns exist regarding sharing personal information in parking systems
- Real-time parking information is highly valued by all users

2.1.3 Prototype Session

Summary of Key Findings:

Usability/Expectation :

- A reporting feature is preferable next to the feedback button after the ride.
- An additional sign up/log in is not required due to the MMU app already having their own verification system, which would be optimal if the data is able to integrate into the system.

UI/UX:

- Instead of jumping to another page to obtain car detail information, Admins would prefer to see only the important information that can assist them in contacting the owner.
- While not a priority, a dark mode would be preferable if driving during the night.

Technical:

- A method needs to be used to assign each car park with their own parking number ID, and should stay there when resizing the map, this would be the most tiem consuming part within the system.

2.2 Categorized Requirements (Based on Kano)

2.2.1 Questionnaire Session

Based on the questionnaire analysis, the following features were classified using the Kano model:

Feature	Kano Category	Justification
Login with Student ID and password	**Dissatisfiers**	The majority of users expected this as a basic requirement for secure access. Its absence caused high dissatisfaction.
Report illegitimate parking	**Satisfier**	Users strongly preferred this feature and found it helpful but could still accept its absence.
Rider can book a ride with a faculty member	**Delighter**	Viewed positively, but most respondents did not expect it as a standard feature.
Driver can override or empty a reserved parking spot	**Satisfier**	Seen as useful in real-world scenarios. Opinions were split on necessity, but users liked having the option.
Drivers can view available parking spaces	**Dissatisfiers**	Strong expectation among respondents. Considered essential for parking navigation and validation.
Interactive school map with zoom	**Satisfier**	Considered helpful and practical, but not essential. Appreciated as a usability enhancement.
Drivers can accept or decline ride requests	**Dissatisfiers**	Strong agreement that this is a necessary control for safety and comfort, especially for drivers.
Admin login using Admin ID	**Dissatisfiers**	Considered a baseline administrative function. Strong dissatisfaction if unavailable.
Admin can view reported parking violations	**Satisfier**	Seen as valuable to enforce parking rules and respond to reports, but not a core system function for all users.
Admin can view car owner details	**Delighter**	Viewed as useful by some, but not necessary for most. Privacy concerns noted in free-text comments.

2.2.2 Interview Session

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Category	Requirement Group	Details
Dissatisfiers	Ride Information Fundamentals	- Time of departure - Pick-up location and destination - Driver details (including picture) - Number of available seats - Ride Costs view
	Safety and Verification	- University verification for all users - Basic security measures
	Parking Information	- Real-time parking availability - Map location of parking spots
Satisfiers	Ride Approval and Matching	- Manual approval (preferred by drivers) - Automatic matching (preferred by riders) - Gender/faculty filters - Recurring ride booking
	Parking System Enhancement	- Best lot suggestions based on destination - Partial vehicle identification in parking (mixed privacy opinions)
Delighters	Incentive Systems	- Fuel savings / carbon reduction stats - Reward system (e.g., fuel compensation or redeemable points)
	Safety and Convenience Enhancements	- Location sharing with friends - Star rating system - Illegitimate parking reporting with photo evidence

2.2.3 Prototype Session

Category	Feedback Item	Rationale
Dissatisfier	No extra sign-up/login needed since MMU app already has verification; prefer system to integrate with that.	Users expect seamless access via existing systems. Requiring extra login would create redundant processes.
Dissatisfier	Admins prefer important car details shown directly, not on a separate page.	Only necessary information is needed, too much extras will clog up the screen and effect user experience.
Satisfier	Reporting feature placed next to the feedback button after rides.	This adds useful control and accountability, increasing satisfaction — but users may still use the app without it.
Satisfier	Assigning unique parking number IDs and keeping them stable when resizing the map.	Affects usability and accuracy — important for performance, but not a base expectation.
Delighter	Dark mode option for night-time driving.	Not expected, but appreciated when present — a classic excitement feature.

2.3 Observations and Notes

2.3.1 Questionnaire Session

The following key observations were made during the analysis of 34 responses collected through the Kano-model-based questionnaire:

General Findings and Interesting Observations:

- Most users strongly expect basic security and identity features, such as login using student/staff ID, to be present. These were consistently rated as “must-be”.
- Real-time parking visibility and ride request approval were also perceived as baseline expectations.
- Users appreciated interactive and visual features, like a zoomable campus map and viewable license plate, especially for parking navigation.
- There was a high positive response to administrative control features, even among student respondents, suggesting a general appreciation for well-managed systems.

Conflicting or Ambiguous Feedback:

- Responses were mixed on the feature that allows drivers to override or empty reserved parking spots. Some viewed it as useful, others raised concerns about misuse or fairness.
- The feature to book a ride with faculty members was received positively by some users (as a novel idea), but others found it irrelevant or unnecessary.
- There were diverging preferences on car plate visibility—while many supported it for verification, others expressed privacy concerns.

Impact on SRS:

- Features that were strongly rated as "must-be" (such as student login, parking visibility, and ride control) were confirmed and prioritized in the functional requirement list.
- Features with conflicting feedback were either marked as optional, configurable, or to be validated during prototype testing (e.g., override parking, view car owner info).
- Delighter-type features, such as reporting parking violations or booking with faculty, were included as enhancements, not core functions, to balance scope and development effort.

2.3.2 Interview Session

- **Gender-based Safety Concerns**: Female drivers expressed significant preference for same-gender riders, suggesting safety filters are essential rather than optional.
- **Privacy vs. Accountability Balance**: Differing opinions regarding the sharing of personal information in the parking system highlight the need for careful consideration of privacy implications.
- **Verification Importance**: University verification appears to be a key trust factor that enables users to feel comfortable with the ride-sharing concept.
- **Economic Incentives**: Both interviewed users expressed that monetary incentives or rewards would significantly increase their motivation to use the platform.
- **Automatic vs. Manual Preferences**: There was a clear preference difference between drivers (preferring manual approval) and riders (preferring automatic matching), indicating a need for a hybrid approach.
- **Illegitimate Parking Concerns**: Both participants expressed strong interest in a reporting mechanism for parking violations, suggesting this is a common pain point on campus.

2.3.3 Prototype Session

Dissatisfiers (Must-Have Requirements)

- Users do not want to go through an additional sign-up/login process; prefer integration with MMU's existing verification system.
- Admins prefer key car details (for contacting owners) to be displayed upfront, rather than on a separate page.

Satisfiers (Performance Requirements)

- A reporting feature next to the feedback button (after a ride) would improve user control and accountability.
- Each car park should have a unique parking number ID that remains visible and fixed even when the map is resized.

Delighters (Excitement Requirements)

- A dark mode feature would be appreciated for night-time driving, though it's not essential.

3 Appendices

3.1 Raw Notes or Transcripts

3.1.1 Questionnaire Session

Survey Results for Questionnaire

To better illustrate the outcome of the questionnaire-based analysis, the following chart summarizes the distribution of the 10 features across the three Kano model categories.

Figure 1: Distribution of Features by Kano Category

The pie chart below illustrates the distribution of ten system features across the three Kano model categories based on user feedback from the questionnaire. Each feature was analyzed using paired positive and negative questions to determine its perceived importance.

- Must-be (light green): Core features that users expect by default, such as login, ride approval, and parking visibility. Their absence causes significant dissatisfaction.
- Satisfiers (dark green): Features that increase satisfaction if present, such as illegitimate parking reporting and admin management tools.
- Delighters (yellow): Value-added features that pleasantly surprise users, such as booking with faculty or viewing owner information.

This chart highlights that most features were classified as Must-be or Satisfiers, indicating that user expectations are focused on core security and control functionality, while a few features offer opportunities for added user engagement.

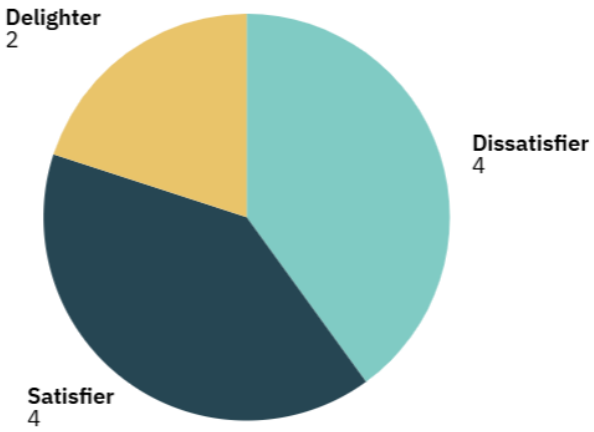
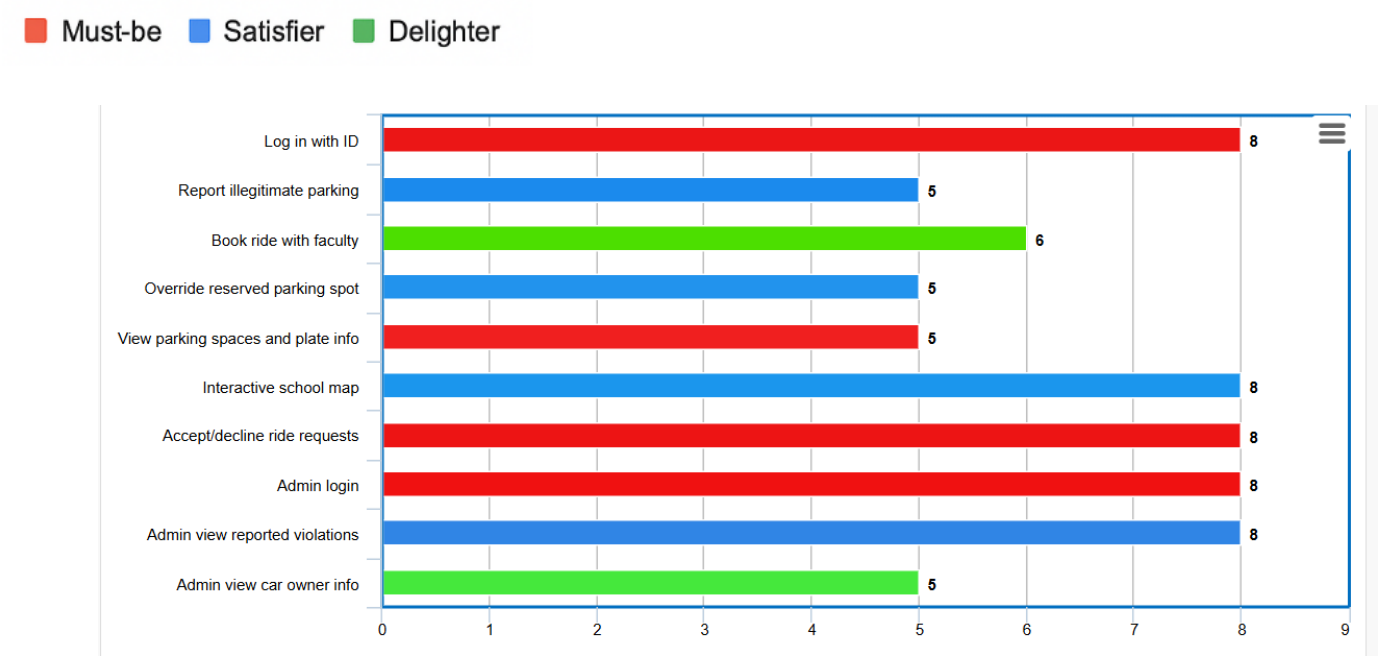
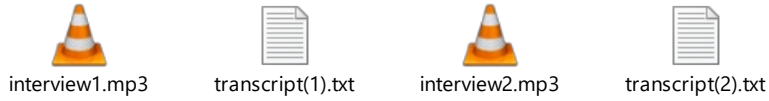


Figure 2: Feature Breakdown by Kano Category

The following bar chart visualizes the Kano classification of each feature based on user responses. It shows that most features were considered either Must-be (essential expectations) or Satisfiers (performance needs), while a few were categorized as Delighters (unexpected but appreciated features).



3.1.2 Interview Session



Two interview transcripts were collected and can be viewed in InterviewRecordings:

1. Interview with Sow Chien Yee (Driver perspective)
2. Interview with Ng Zai Kit (Rider perspective)

The complete transcripts contain detailed responses to questions about ride-sharing preferences, safety concerns, matching preferences, parking system requirements, and feature priorities.

Transcript 1

Teh Li wei (Interviewer): Okay, I'm Li Wei and I'm currently working on a software requirements project. So the title is about a ride sharing and parking system. The goal of this interview is to gather your thoughts on how the system should work and what details matter to you as a user. So can you introduce yourself before we start the interview?

Interviewee: Sure. My name is Sow Chien Yee and I am a student in MMU. I usually drive to school when i have class.

Teh Li wei (Interviewer): Alright. So our question is, what information do you think must be required when offering a ride?

Interviewee: I think the information that must be required is about the time to depart from the location and the destination of the location.

Teh Li wei (Interviewer): Alright, so would you feel safe letting someone you don't know to join your car if they are a verified student? And tell me why or why not?

Interviewee: Actually, I don't really feel safe if I'm a male stranger because I usually drive alone and then I usually prefer my rider is girl.

Teh Li Wei (Interviewer): Even iff he is verified user?

Interviewee: Yeah.

Teh Li Wei (Interviewer): So would you prefer to manually approve a rider or let the system match you automatically and tell me why?

Interviewee: I will prefer to manually approve them because I think this is more convenient and also efficient.

Teh Li Wei (Interviewer): Alright, so what kind of filters would be helpful when matching with a rider like gender, faculty, race?

Interviewee: I think gender and faculty because like I mentioned just now, if female is, I can feel more safety because usually girls with girls are more comfortable.

Teh Li Wei (Interviewer): So if the system could show you your estimated fuel safe or carbon footprint reduction, so would that motivate you to offer more rides?

Interviewee: Yes, that will motivate me.

Teh Li Wei (Interviewer): So if you could earn a small profit, or rewards like fuel compensation or redeemable points for the campus perks for each ride you offer, would that make you more motivated to use the platform?

Interviewee: Yeah for sure, that will motivate me too.

Teh Li Wei (Interviewer): Okay, so the continue questions are about the parking system to see the empty parking slot. So what do you expect when viewing the parking availability like real-time count and location?

Interviewee: I will expect them to have real-time count. Because sometimes this can let us know on the next second if the parking spot got empty spaces

Teh Li Wei (Interviewer): OK. So would it help if the app could suggest the best parking lot based on your destination?

Interwiewee: Yes it will help.

Teh Li Wei (Interviewer): Alright, so would you prefer to view claim parking spot along with the name or plate number of the person who claimed it? Why or why not?

Interviewee: I would prefer to view parking spot along with the name and plate number because sometimes if anything happen we can contact them immediately.

Teh Li Wei (Interviewer): Alright, so if there was a report illegitimate parking feature with the photo upload. Would you use it? Why or why not?

Interviewee: Yes, definitely I will use it because we can report any illegal parking. Because this illegal parking is a very common issue. It's a very big issue nowadays. So I think the feature with photo uploads is very helpful to make sure that this report is real.

Teh Li Wei (Interviewer): Okay, alright. Thank you for the interview.

Interviewee: Thank you.

Transcript 2

Teh Li Wei (Interviewer): So I'm Li Wei and I'm currently working on a software requirements project. So the title is about a ride sharing and parking system. The goal of this interview is to gather your thoughts on how the system should work and what details matter to you as a user. So can you introduce yourself before we start the interview?

Interviewee: My name is Ng Zai Kit and I'm a student of MMU.

Teh Li Wei (Interviewer): Okay, so there's the question. You are the riders (role of this system), because you don't have car right?

Interviewee: Yes.

Teh Li Wei (Interviewer): Okay, so first question. When requesting a ride, what details do you expect to see before confirming?

Interviewee: I think I will need to know the picture of the drivers and how many seats they have and did they have any other customer. The most important is the price.

Teh Li Wei (Interviewer): Ah, the price. Would you feel comfortable getting into a car with someone you don't know if they are verified by the university system?

Interviewee: It's okay for me because I think it is verified by the university and I think it will be safe.

Teh Li Wei (Interviewer): Alright, so would you like the system to allow recurring ride bookings?

Interviewee: Yeah, because it's more convenient for us to booking a car like one day before and you don't have to book at the...time so rush.

Teh Li Wei (Interviewer): So when booking a ride, would you prefer to choose the driver manually or let the system automatically match one for you based on location and destination and why?

Interviewee: Yeah it have to be automatically because like, if I choose it (manually), it waste my time and lot of thing to do if automatically can do all the things for me, is will be the best.

Teh Li Wei (Interviewer): Alright. So if you could rate the review each ride experience, would you actually use the feature?

Interviewee: Not for writing but I will give the starring rating.

Teh Li Wei (Interviewer): Okay. So would you use a feature where your friends can see your live location during the ride?

Interviewee: Yeah, I think it's okay for me because if my friend can see my location I think it's more safety if I have anything happen my friend can know in the first time (instantly).

Teh Li Wei (Interviewer): Alright so the continual question is about the parking system. So what do you expect when viewing the parking availability like real time count and map location?

Interviewee: Yeah it's a great feature because it's more convenient for other people to finding parking if there are no parking in that spot, so the person don't have to find it so hard.

Teh Li Wei (Interviewer): Okay, does it help if the app could suggest the best parking lot based on your destination?

Interviewee: Yeah. If the features is like this, it is a good features because now I don't see any apps got this kind of features. So I think it's a good try.

Teh Li Wei (Interviewer): Would you prefer to view claim parking spots along with the name or plate number of the person who claimed it? Why or why not?

Interviewee: I wouldn't recommend this because it's some privacy issues. For me, I think we just need to know about the plate number is okay. If we know about the person name or other details, I think it's not very good like this.

Teh Li Wei (Interviewer): If there was a report illegitimate parking feature with photo upload, would you use it? Why or why not?

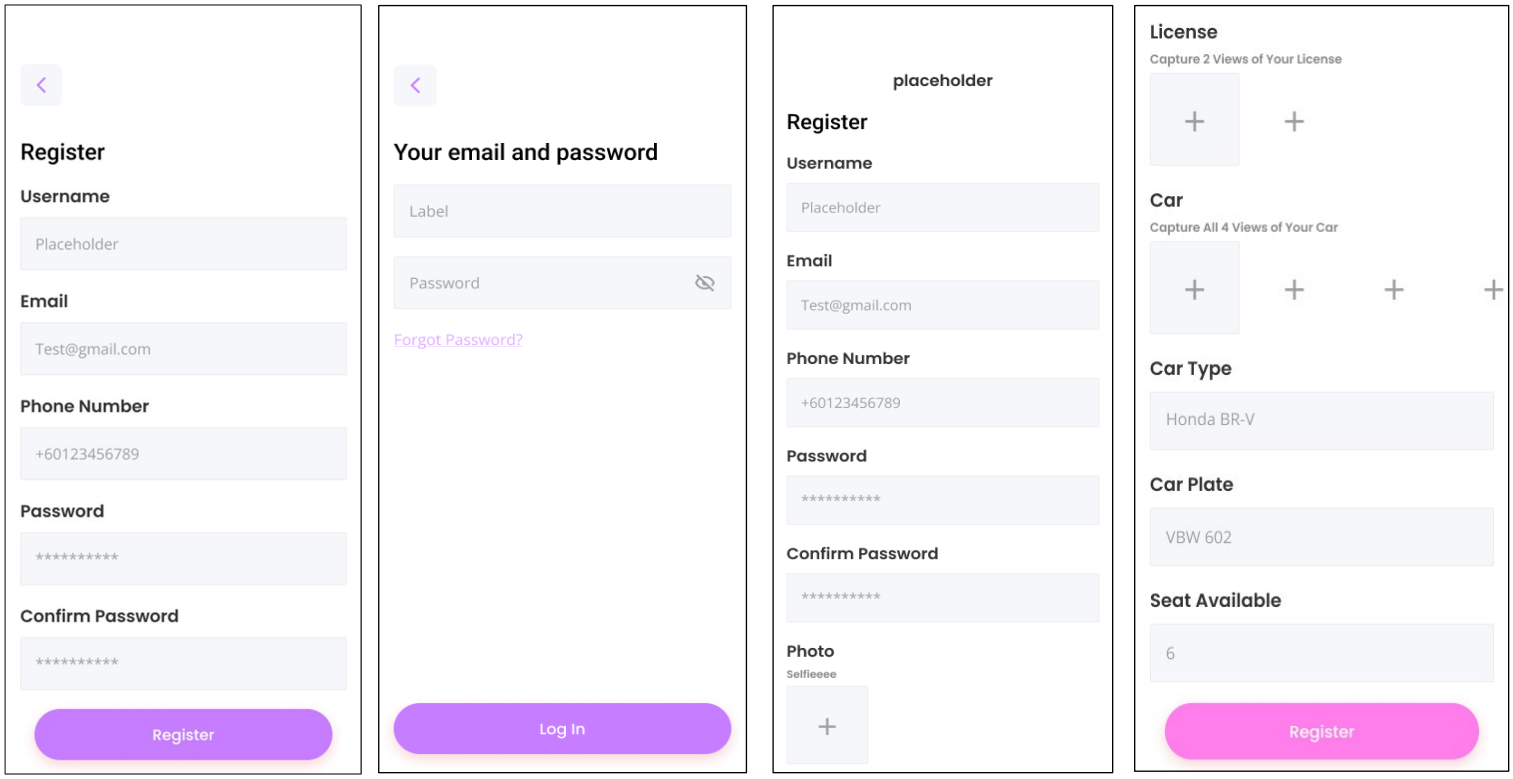
Interviewee: Yes, I will use it because for me, I really hate other people parking illegally and I think this is a better way to let other people know about the properly parking is very important.

Teh Li Wei (Interviewer): Okay, thank you for the interview.

3.1.3 Prototype Feedback

Selected stakeholders were shown the interfaces and prompted to provide feedback. The interfaces and their corresponding feedback are presented below.

Authentication system



This is a prototype of a simple authentication system for the whole application, it included a simple form of register as a user and login form for normal users, drivers and even administrators. The third image provided shows a form of a normal user register as a driver. The driver registration form needs to be detailed to let administrators to register the user as a driver.

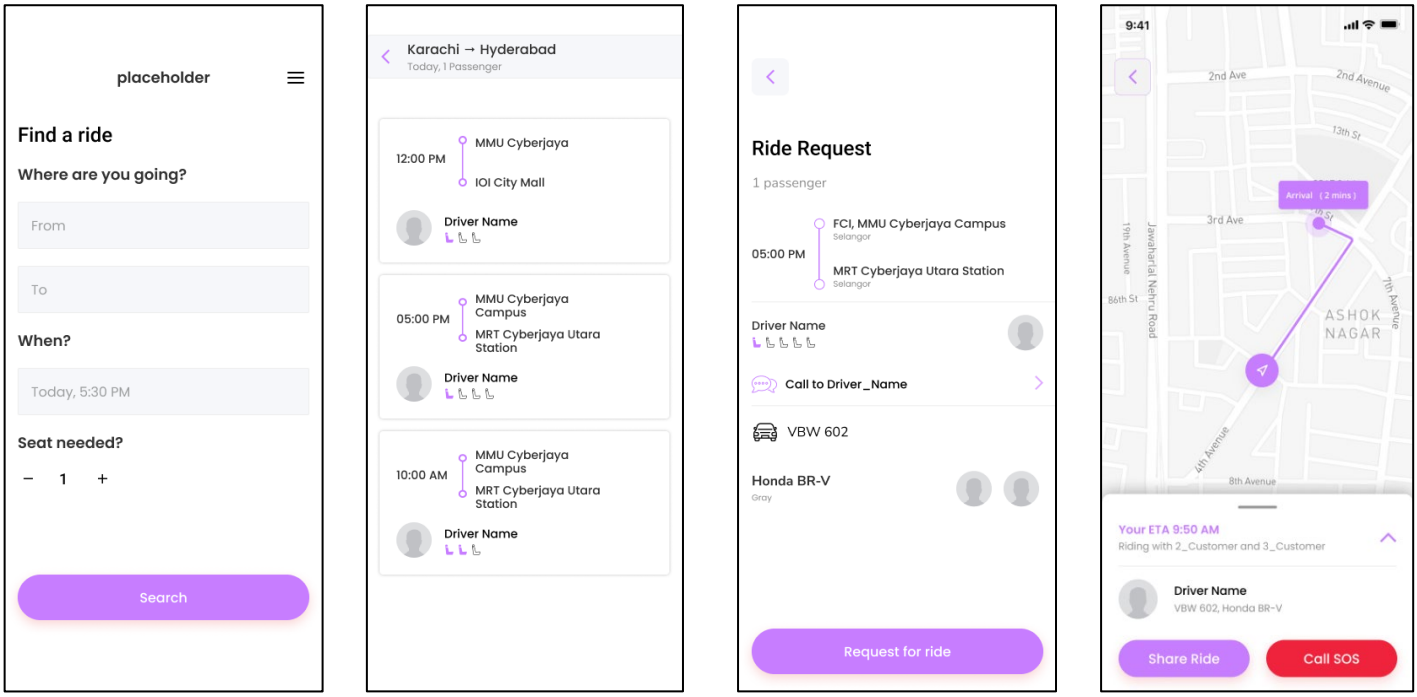
Feedback

Goh Ming Yee: First of all, I feel that the login and signup features are quite redundant. Since you're integrating this system with the existing MMU app, you should find a way to retrieve user data directly from there. Secondly, a dark mode would always be preferable.

Tan Jeng Seng: These features seem nice, but the password field should have an option to toggle visibility in case of typos.

Lai Zi Xuan: There shouldn't be any problem integrating this, but if we want to connect it with the existing MMU app, we'll need assistance from NICE MMU to ensure user data can be transferred to this system.

Car-pooling system (User side)



This system shows the normal users' side of carpooling/campus ride-sharing system. The system allows normal users to book/request a ride. Apart from other carpooling/ride-sharing system which auto find driver for customers, this system lets normal users choose their appropriated route to optimize best routes for both drivers and customers.

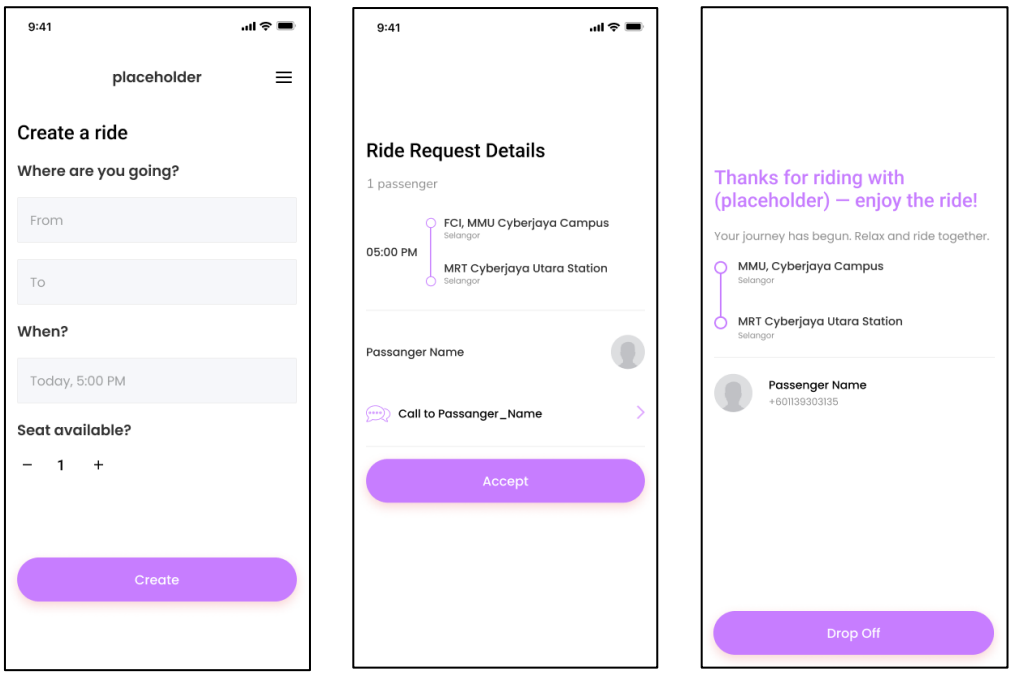
Feedback

Goh Ming Yee: From the driver's perspective, I don't think the "when" feature would work well. I wouldn't want to wait for someone, especially if I'm just passing by and have somewhere else to be.

Tan Jeng Seng: This function works fine, but I'd like to suggest an additional feature—sharing live location with friends. A contact list integration could also be helpful.

Lai Zi Xuan: Since the faculty is quite large, we may need to split it into multiple entrances. This would make it easier for both drivers and passengers to coordinate where to meet.

Car-pooling system (Driver's side)



This one shows the driver's side of the carpooling/campus ride-sharing system. Drivers can create ride for customers to join ride, as from earlier normal users can choose ride. The purpose of the driver to create ride is to let driver to go to their own destination after the ride and to let normal riders to join without interrupting the driver's route.

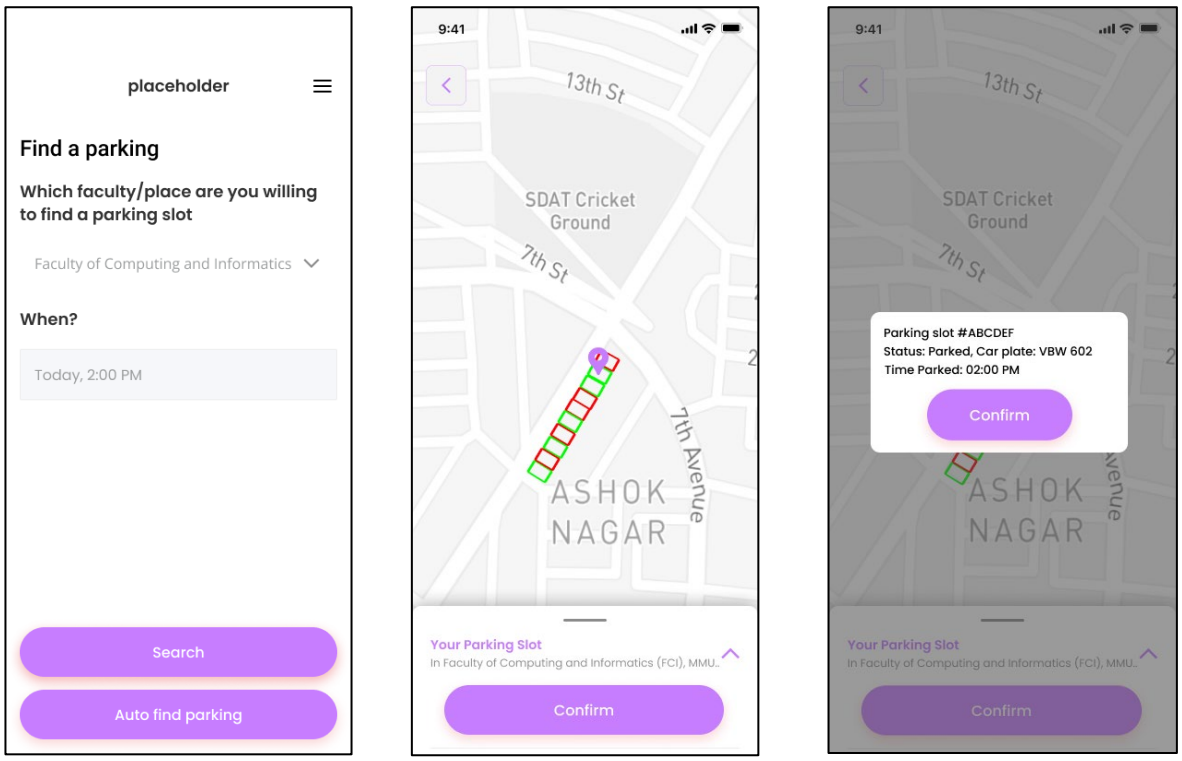
Feedback

Goh Ming Yee: I don't think student or staff drivers should be forced to accept ride requests, so a "Decline" button would be preferable.

Tan Jeng Seng: The buttons should be properly aligned to improve the user experience.

Lai Zi Xuan: There shouldn't be any major issues with implementing this feature.

Parking System



This parking system is made for normal users (mostly students) to find a parking slot inside campus. The system features an automatic parking finding system and a manual parking booking system to let users to book a parking instantly (for automatic parking searching system) and for users to book a parking for a certain time slot (for manual parking booking system). Users and admins can view parking info if the slot is taken according to image 3.

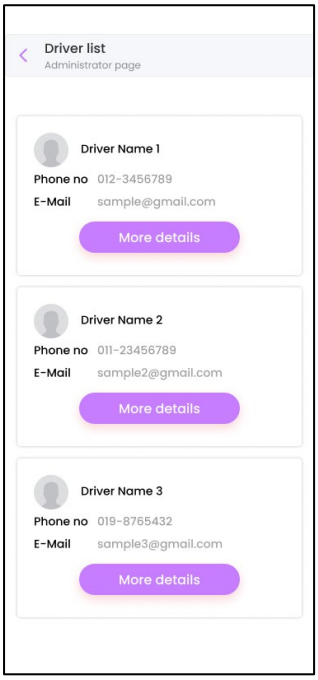
Feedback

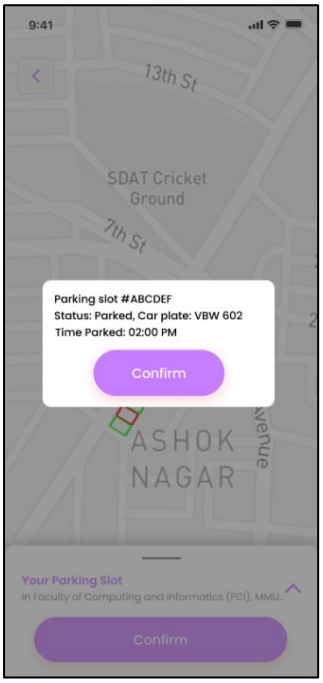
Goh Ming Yee: The “When” section is awkward—just remove it. Parking spaces shouldn’t be pre-assigned, as that could cause issues.

Tan Jeng Seng: The map should allow zooming in and out and display parking spaces clearly. The current implementation is too small to accurately select the correct spaces.

Lai Zi Xuan: Keeping track of each parking space requires student integrity. The reporting feature shouldn’t be too difficult to implement, though projecting the parking spaces accurately on a zoomable map will require proper planning.

Administrative system





This is the administrative system for the prototype application. The system can let administrators to view driver details for car-pooling/ride-sharing system and parking information for parking system. The purpose of the administration is to ensure that drivers are being approved manually for application of car-pooling/ride-sharing system, and also to view and update the availability of the parking of the parking system.

Feedback

Goh Ming Yee: I see no problem with the administrative system, but having a page full of just drivers and details is redundant, as when would anyone actually use that?

Tan Jeng Seng: The “more details” under each of the driver details is very unpleasing; maybe change it to an arrow at the side. A search function would work as well.

Lai Zi Xuan: Both aren’t a problem as it’s just taking data from a database.

3.2 Templates used for elicitation

3.2.1 Questionnaire template

The questionnaire was structured according to the Kano Model to identify which system features are considered essential, performance-enhancing, or delightful. For each feature, two questions were used:

- A **positive scenario**: *"If this feature exists, how would you feel?"*
- A **negative scenario**: *"If this feature does not exist, how would you feel?"*

A total of **10 features** were evaluated (20 questions total). These features covered login authentication, carpooling controls, parking features, and administrative functions.

Feature	**Positive Question**	**Negative Question**
Login with Student ID and password	If the system allows users to log in using Student ID and password, how would you feel?	If the system does not allow users to log in using Student ID and password, how would you feel?
Report illegitimate parking	If the system allows users to report illegitimate parking, how would you feel?	If the system does not allow users to report illegitimate parking, how would you feel?
Book ride with faculty	If the system allows students to book a ride with a faculty member, how would you feel?	If the system does not allow students to book a ride with a faculty member, how would you feel?
Override reserved parking spot	If the system allows drivers to override or clear a reserved parking spot, how would you feel?	If the system does not allow drivers to override or clear a reserved parking spot, how would you feel?
View parking spaces and plate info	If the system allows drivers to view available parking spaces and license plate numbers, how would you feel?	If the system does not allow drivers to view available parking spaces and license plate numbers, how would you feel?
Interactive school map	If the system provides a zoomable interactive school map, how would you feel?	If the system does not provide a zoomable interactive school map, how would you feel?
Accept/decline ride requests	If the system allows drivers to accept or decline ride requests, how would you feel?	If the system does not allow drivers to accept or decline ride requests, how would you feel?
Admin login	If the system allows an admin to log in using an admin ID and password, how would you feel?	If the system does not allow an admin to log in using an admin ID and password, how would you feel?

Admin view reported violations	If the system allows an admin to view reported parking violations, how would you feel?	If the system does not allow an admin to view reported parking violations, how would you feel?
Admin view car owner info	If the system allows an admin to view car owner information, how would you feel?	If the system does not allow an admin to view car owner information, how would you feel?

Raw responses are included in the project GitHub in CSV format

3.2.2 Interview template

Interview Structure and Templates

The interviews followed a structured format using questions categorized according to the Kano model. Two separate interview templates were created for the different user groups:

Driver Interview Template:

Dissatisfiers (Must-Have Features):

1. What information do you think must be required when offering a ride? (time/destination)
2. Would you feel safe letting someone you don't know join your car if they are a verified student? Why or why not?

Satisfiers (Performance Features):

1. Would you prefer to manually approve riders, or let the system match you automatically? Why?
2. What kind of filters would be helpful when matching with a rider? (gender/faculty/race)

Delighters (Excitement Features):

1. If the system could show you your estimated fuel saved or carbon footprint reduction, would that motivate you to offer more rides?
2. If you could earn a small profit or reward (fuel compensation/redeemable points for campus perks) for each ride you offer, would that make you more motivated to use the platform?

Rider Interview Template:

Dissatisfiers (Must-Have Features):

1. When requesting a ride, what details do you expect to see before confirming (driver name, student ID, car model, plate number)?
2. Would you feel comfortable getting into a car with someone you don't know if they are verified by the university system? Why or why not?

Satisfiers (Performance Features):

1. Would you like the system to allow recurring ride bookings? (max one day before)
2. When booking a ride, would you prefer to choose the driver manually, or let the system automatically match one for you based on location and destination? Why?

Delighters (Excitement Features):

1. If you could rate and review each ride experience, would you actually use that feature?
2. Would you use a feature where your friends can see your live location during the ride (optional)?

Both User Groups Template:

Dissatisfiers (Must-Have Features):

1. What do you expect when viewing the parking availability (real-time count, map location)?

Satisfiers (Performance Features):

1. Would it help if the app could suggest the best parking lot based on your destination?
2. Would you prefer to view claimed parking spots along with the name or plate number of the person who claimed it? Why or why not?

Delighters (Excitement Features):

1. If there was an "Report Illegitimate Parking" feature with photo upload, would you use it? Why or why not?

Interview Summary Results

The following tables summarize the key findings from the interviews:

Driver Responses (Sow Chien Yee):

Question Category	**Key Response**
Essential Ride Information	Time of departure and destination location
Safety with Unknown Riders	Not fully comfortable, prefers female riders even with verification
Matching Preference	Prefers manual approval for convenience and efficiency
Filter Preferences	Gender and faculty filters preferred for safety
Fuel/Carbon Tracking	Would be motivated by this feature
Reward System	Confirmed this would increase motivation
Parking Information	Expects real-time count for immediate availability
Parking Suggestions	Found this feature helpful
Viewing Parking Claims	Prefers seeing name and plate number for contact purposes
Illegitimate Parking Reports	Would definitely use this feature to report common issues

Rider Responses (Ng Zai Kit):

Question Category	Key Response
Expected Ride Details	Driver picture, available seats, passenger count, and price
Comfort with Verified Drivers	Comfortable due to university verification
Recurring Bookings	Prefers this feature for convenience and avoiding rush
Matching Preference	Prefers automatic matching to save time
Rating Feature	Would use star ratings but not written reviews
Location Sharing	Would use for safety reasons
Parking Information	Values real-time information for convenience
Parking Suggestions	Sees this as a valuable and unique feature
Viewing Parking Claims	Prefers only plate number due to privacy concerns
Illegitimate Parking Reports	Would use to discourage illegal parking

3.2.3 Prototype Feedback Template

The Figma link below has been shared with each of our selected stakeholders to gather feedback and comments. Several key pages have been chosen as the main focus of this review:

🔗 Figma Design – CSE6224 Parking and Carpool System

The template below is sent to each of our respective stakeholders:

Please consider the following questions when reviewing the design:

1. How is the layout of the UI?
   Is it clear, consistent, and user-friendly?
2. As a user, what are your thoughts on the flow of the program?
   Is the navigation intuitive? Are any steps confusing or unnecessary?
3. Compared to other similar apps, are there any features you think should be added?
   Is there any missing functionality you expect to see?
4. As a developer, is there any technical difficulties when implementing this?
   Are there areas that may be complex or difficult to implement?

3.3 References

1. Mustafa, B. A. J. (2014). Classifying software requirements using Kano's model to optimize customer satisfaction. Universiti Malaysia Pahang. http://umpir.ump.edu.my/8513/1/Classifying_Software_Requirements_Using_Kano%27s_Model_to_Optimize_Customer_Satisfaction.pdf
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3. Qualtrics. "Kano analysis: The kano model explained" Accessed May 20, 2025. https://www.qualtrics.com/en-au/experience-management/research/kano-analysis/.