MAN 3154 Information Systems Management and Strategy

Cover page

Names	Student ID	Contribution
AYU WEN LI	22017867	Prototyped the GroupOrder+ feature in Figma, Did Alpha Testing Results Analysis, Made improvements to the final prototype for GroupOrder+, Video Presentation for Desired KPIs, and Beta Testing Results, Conclusion, Explained about GroupOrder+ under the Initial & Final Prototype section
KEERTANA A/P SUBRAMANIAM	23109614	Prototyped the Minigames feature in Figma, Did the Beta Testing survey form, made improvements for Minigames, did Video Presentation for Initial Prototype and Alpha Testing, Explained about Minigames under the Initial Prototype section
SIOW QI YUNG	22053037	Prototyped the AI Personalised Drink Recommender feature in Figma, made improvements to the final prototype for AI Personalised Drink Recommender, Did the Beta Testing Results Analysis, Video presentation for final prototype (the minor changes), Explained about AI Personalised Drink Recommender under the Initial & Final Prototype section

WONG HUI SAN	22034540	Did the Introduction section, created Alpha
		Testing survey form, Tested the Overall
		Prototype functionality and usability,
		Video Presentation for
		Introduction, Problems Addressed and
		Objectives.

1.0 Introduction	4	
2.0 Initial Prototype	6	
2.1 Minigames	7	
2.2 AI Personalised Drink Recommender	9	
2.3 GroupOrder+	14	
3.0 Alpha testing	18	
3.1 Alpha Testing Results	18	
3.2 Overall Question Ranking	26	
3.3 User Feedback	27	
3.4 Conclusion of Alpha Testing.	28	
4.0 Final Prototype (The Minor Changes)	29	
4.1 Minigames	29	
4.2 AI Personalised Drink Recommender	30	
4.3 GroupOrder+	32	
5.0 Beta Testing	33	
5.1 Beta Testing Results & Analysis	33	
5.2 Overall Question Ranking	40	
5.3 User Feedback	42	
5.4 Conclusion of Beta Testing	42	
6.0 Video Presentation	43	

1.0 Introduction

Assignment 1	Assignment 2	Mid-Term	Post Mid-Term
ZUS Coffee	Puma	ZUS Coffee	ZUS Coffee
1. Drive-thru services	1. Implement Blockchain for Product Authentication	1. Permanent In- App Minigames	1. Permanent In-App Minigames
2. Consistency across locations	2. Integrate Circular Product Lifecycle Management (PLM) Tools	2. Smart and Cashier less Store	2. ZUS GroupOrder+
		3. AI Powered Personalised Drink Recommender	3. AI Powered Personalised Drink Recommender (With User Consent)
Coffee Bean & Tea Leaf	Gucci		
1. "Grow Your Coffee Tree" In- App Game	1. "See It in My Life" AR Preview		
2. AI Smart Staffing & Robotic Coffee Pods	2. "Gucci Co- Creators" Platform		

Before the mid-term assignment, our proposed improvements for ZUS Coffee in Assignment 1 were drive-thru services and enhancing consistency across branches through staff certification and real-time performance monitoring. These improvements are able to bring values to ZUS Coffee but they were common and lacked direct customer impact.

During the mid-term, we developed five potential strategies and based on the weighted criteria analysis, we have decided to work on the top three strategies which are Permanent In-App Minigames, Smart and Cashierless Store and AI Powered Personalised Drink Recommender. These strategies have high impact potential based on the value they offer and the constraints in implementing them.

During the post mid-term, we have decided to change the Smart and Cashierless Store strategy into ZUS GroupOrder+ strategy. The idea of Smart and Cashierless Store is that customers order their drink via app and they can pick up their order at the smart shelf by scanning a QR code. However, ZUS customers seldom have issues with picking up their orders and the smart shelf concept is more suitable for managing inventory with a wide variety of items and units. As a result, the high technological cost of implementing the shelf would not generate a good return on investment (ROI). Therefore, after much consideration, we are implementing the ZUS GroupOrder+ strategy instead. It is designed to make bulk ordering more convenient for companies or groups by allowing each individual to choose their own orders and enjoy exclusive discounts.

Permanent in-app minigames

ZUS coffee currently offers seasonal minigames only during festivals like Hari Raya. However, we believe introducing permanent minigames can significantly boost customer loyalty and user experience as ZUS Coffee targets young and tech-savvy users. Simple and fun minigames like Spin-The-Wheel, Coffee Trivia and Match-3 allow users to earn points that can be used to redeem vouchers and rewards. Users will be more encouraged to play these minigames knowing they can get something useful in return. Ultimately, these minigames aim to retain customers, drive app engagement and encourage purchases through reward redemption.

ZUS GroupOrder+

Office teams, companies, event organizers or project groups always order coffee in bulk when there are events. However, it is inconvenient to ask each person individually what they want for their drink or food. So, the company either spends a good amount of time collecting everyone's orders or simply orders the same item for everyone. ZUS GroupOrder+ is a feature that allows a team member to create and share a group order link with other ppl so everyone gets to add their own drink themselves based on their preference. There are two payment options for this feature, they can choose either each person pays for their drink separately or one person pays the entire order. This can reduce the hassle of having to split the bill and transfer back money to the person who ordered. Furthermore, there will be different discounts depending on the order size. ZUS is able to stand out with this feature as there will be higher Average Order Value (AOV) per transaction and there is a higher chance for a group becoming loyal or returning customers.

AI Powered Personalised Drink Recommender

The AI Powered Personalised Drink Recommender is able to analyse and give a better drinks suggestion based on customer preferences from past orders such as what are their preferred drinks, milk choices, hot or iced drinks and sugar level. Users are also given an option to integrate with smartwatches and collect their body metrics such as heart rate, body temperatures and sleep quality, then suggest drinks accordingly. For example, if the customer always orders iced drinks and their smartwatches show that they are having bad sleeping quality, the AI Recommender may suggest non-caffeine iced drinks like Iced Roasted Hazelnut Chocolate. This prevents customers from accidentally ordering drinks they may not enjoy. The AI drink recommender guides users in choosing a drink when they are unsure what to order and encourages purchases.

2.0 Initial Prototype

Initial Prototype Figma Link:

 $\frac{https://www.figma.com/design/CNXTNvdDey5dBqM3OBXpIA/ZUS-Coffee-Mobile-App?node-id=0-1\&t=CfdMcBA73AJ3zMmD-1$

Initial Prototype Preview Link:

 $\frac{https://www.figma.com/proto/CNXTNvdDey5dBqM3OBXpIA/ZUS-Coffee-Mobile-App?node-id=0-1\&t=0dxBPdVAMH6PXqhk-1}{}$

2.1 Minigames

As part of the initial prototype, the permanent implementation of Minigames feature was introduced to enhance user engagement and encourage repeat app usage. This section included three interactive games: Spin the Wheel, Coffee Trivia, and Match the Bean, each designed to offer a quick, rewarding break in the user journey.

Minigame 1: Spin the Wheel



Spin the Wheel is a luck-based game allowing users to spin a wheel for points or rewards. It is simple, quick, and effective in driving excitement and engagement.

Minigame 2: Coffee Trivia





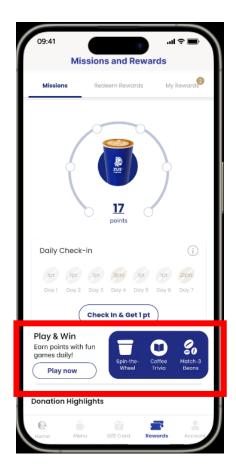
Coffee Trivia is a quiz-based game testing users' knowledge of coffee-related facts. It offers educational value while remaining light and fun.

Minigame 3: Match the Bean



Match the Bean is a memory card game where users match the bean types. This was designed to be visually engaging and test users' short-term memory.





All games can be accessed through the Homepage or the Rewards section and made accessible via the homepage. Points earned through gameplay can be redeemed later in the Rewards section, reinforcing user motivation and loyalty.

This feature was included as one of the key interactive strategies in the prototype, aiming to make the app more dynamic and enjoyable beyond just drink ordering.

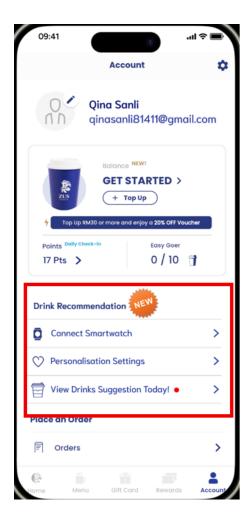
2.2 AI Personalised Drink Recommender

The AI Personalised Drink Recommender is accessible from both the homepage and the account page, offering users a personalized experience based on their preferences and optional smartwatch data integration.

1. Homepage Access

On the homepage, the AI Personalised Drink Recommender is introduced under the section title "What's New" with the heading "Connect Your Smartwatch." This placement helps users quickly notice and explore new or featured content. When users click on it, they are navigated directly to the **Account page**, where they can choose to connect their smartwatch or learn more about the feature.





2. Drink Recommendation Section

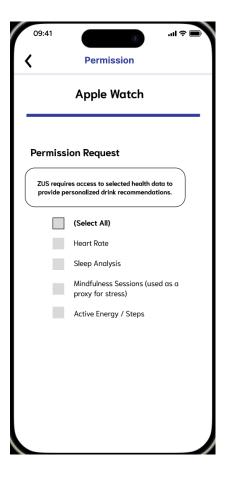
Within the "Drink Recommendation" section, users are provided with multiple options to personalize their experience and received suggested drinks:

Connect Smartwatch:



Users can connect their smartwatch to enable enhanced personalization. This feature is completely optional, and users who do not own a smartwatch can still enjoy drink suggestions.

When a user selects their smartwatch brand, such as Apple or Samsung, they are then directed to a permission request page where they must manually tick all the types of biometric data they wish to share.



Personalisation Settings:



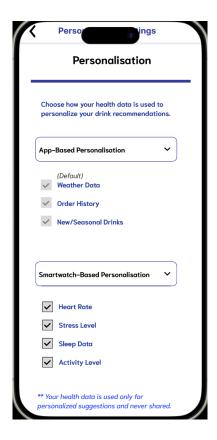
Under this section, a clear reminder is shown that all data is protected and will never be shared with third parties.

For Smartwatch Users:

- Users who connect their smartwatch can customize which data (e.g., heart rate, sleep, activity) the app uses to generate personalized drink recommendations.

For Non-Smartwatch Users:

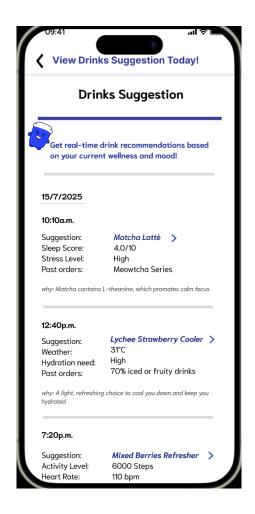
- Users can still receive tailored suggestions based on basic data such as past orders, drink preferences, and weather conditions.



View Drink Suggestions Today!:

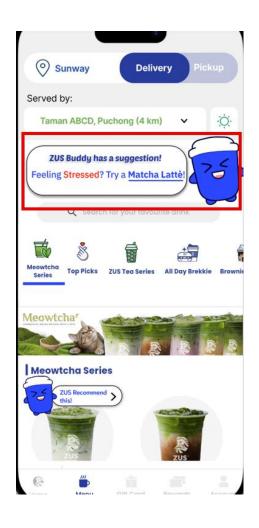


Users can view their daily drink recommendations here. Suggestions are updated in real-time whenever there is new input or data. A red dot notification appears when updates or new suggestions are available, making it easier for users to stay informed. When users click the arrow button beside the suggested drink, they are taken directly to the drink's product page.



3. Menu Page Integration

To increase visibility, the ZUS Buddy and drink recommendation feature are also included on the Menu page. This design choice mirrors the functionality of the "View Your Drink Suggestions Today!" page but places it in a more prominent location. By embedding the recommendation feature directly within the menu, users are more likely to notice and interact with it while browsing drinks. This encourages further engagement with the AI system and helps users discover drinks suited to their preferences.





2.3 GroupOrder+

Homepage Access



This feature can be accessed through the homepage under the title "ZUS COFFEE GROUP ORDER". To attract app users to use this feature, a subtitle displaying "Enjoy RM1 OFF every cup in your group order!" can be seen under the feature title. This not only highlights the benefit of using the feature but also provides an incentive for users to invite friends, family, or colleagues to order together through the app.

Sharing Access Feature

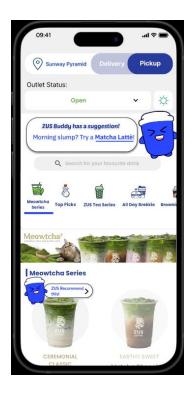


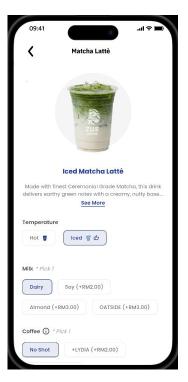




Once users click on the GroupOrder+ icon, they would be directed to a page. Here, the user who had first initiated the group order becomes the host. This host can then invite others to join the same order. The ZUS Coffee app allows two sharing means which are QR code, which is an efficient way to show to other users in person, or to generate link which can be copied to be shared on the user's preferred social platform such as Instagram, Whatsapp or Telegram.

Menu Page Integration

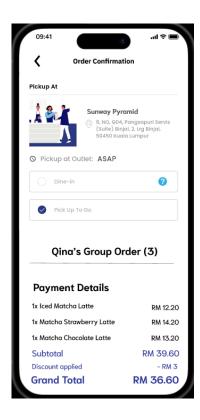


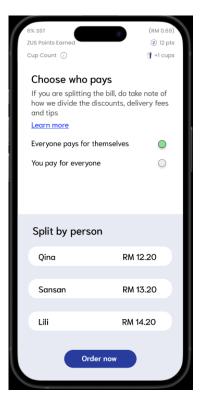


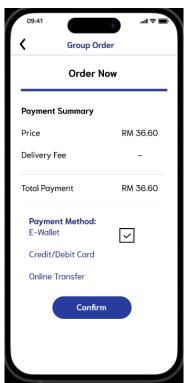


Once the user is ready to order, they simply have to click "Order now" to access the Menu page. From there, the user can select their desired orders and added the orders to their carts, they can click on "Buy Now" button to view the complete order by the group at the order confirmation page.

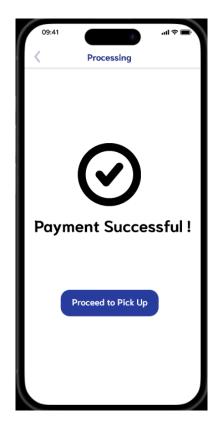
Order Confirmation Page and Payment Details







At the order confirmation page, the user is able to see the complete order as well as the discounts given for each order. Besides that, the app also allows users to choose whether they prefer splitting the bills or have the host user to pay the bills. If the bill is split, the app will automatically calculate each user's share based on their selections. Once done, the user will click "Order Now" to be directed to the payment page and once payment has been made, users can click "Proceed to Pick Up".





After successfully picking up their order, the user can return to the home page by clicking the button "Back to HomePage"

3.0 Alpha testing

Link to the survey question: https://forms.gle/StAKRv1gQCWtZcGC8

There are 19 questions in the survey form consisting of demographic questions, feedback questions for all three strategies in our prototype and overall feedback questions. We have implemented TAM 1,2 and 3 as well as User Experience as the basic guidelines for the testing. Most of the questions are in Likert scale except for the demographic and open-ended questions. By conducting alpha testing, we are able to collect real feedback or comment from the end users and improve our prototype to enhance its features.

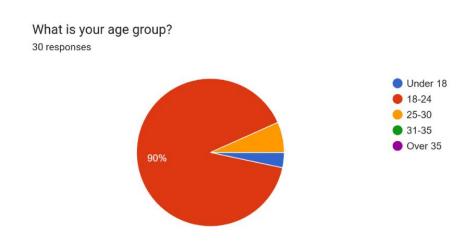
3.1 Alpha Testing Results

Link to Alpha testing responses:

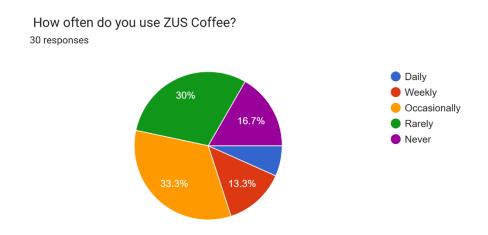
https://docs.google.com/spreadsheets/d/1PEFHwGTrfZpDG09rjX-pG-YN7eXHTnqQibfTFN8jypw/edit?usp=sharing

Alpha Testing Survey Details:

In order to identify any potential issues with our initial prototype, we conducted alpha testing in which we collected data from 30 respondents to gather feedback. The survey contained sections for the demographics, 3 sections for each of the strategies and for overall user feedback. Each strategy had 5 questions which followed the Technology Acceptance Model (TAM).



In the demographics section, the majority of the respondents were 18 to 24 years old (27 respondents). 6.7% (2 respondents) were 25 to 30 years old while only 1 person (3.3%) was under 18 years old.

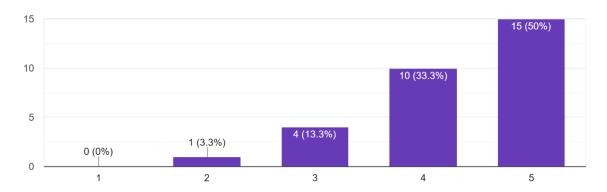


When asked how often they use ZUS Coffee, 33.3% of the participants (10 respondents) answered 'occasionally', 30% (9 respondents) answered 'rarely' and 16.7% (5 respondents)

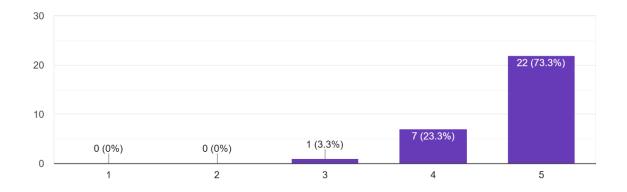
answered 'never'. Only 13.3% of the participants (4 respondents) said that they order from ZUS Coffee weekly while 6.7% (2 respondents) answered that they use ZUS Coffee daily.

Minigames:

The minigames make the app more fun and engaging. 30 responses

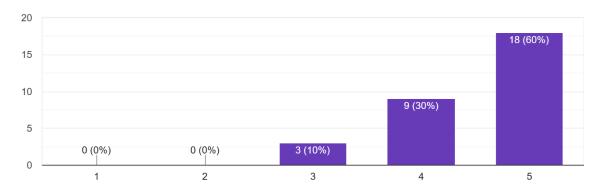


The games were easy to understand and play. 30 responses



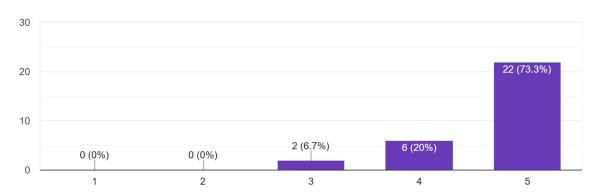
Having minigames makes ZUS stand out as a coffee app.

30 responses



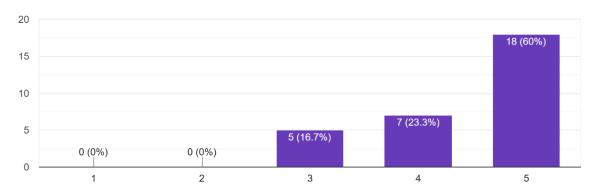
I feel confident navigating and playing the minigames.

30 responses



The minigames were visually and interactively engaging.

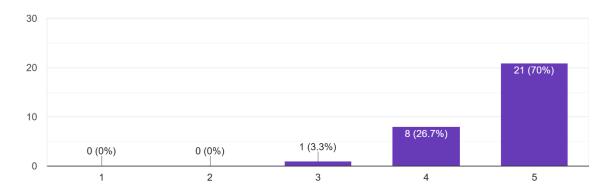
30 responses



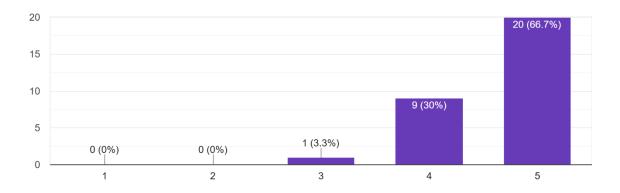
For the Permanent In-App Minigames feature, the average satisfaction score was 4.52 out of 5 which suggests a strong positive user perception and user enjoyment with the feature. There was a total of 5 questions in the Permanent In-App Minigames section, each rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). When asked if the minigames made the app more fun and engaging, 25 participants gave a positive response. 29 respondents answered that the games were easy to understand and play while 27 responded that having the minigames makes ZUS stand out as a coffee app. 28 of the participants felt that they were confident navigating and playing the minigame and 25 of the participants felt that the minigames were visually and interactively engaging.

AI Drink Recommender

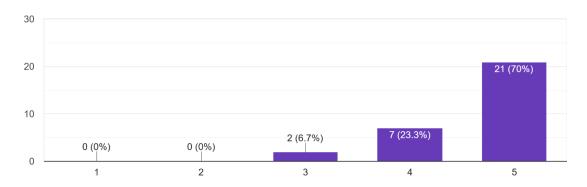
The AI drink recommender gave helpful suggestions. 30 responses



It was easy to interact with the drink recommender. 30 responses

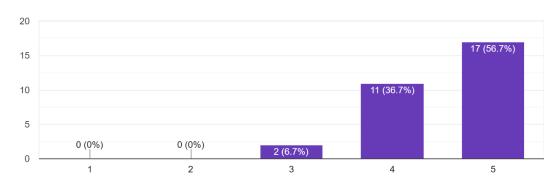


I would use the recommender again for its suggestions based on lifestyle and body data. $_{\rm 30\; responses}$



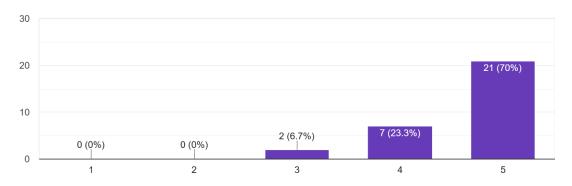
I trust the AI to understand my taste preferences.

30 responses



The experience of using the recommender was enjoyable and smooth. $\label{eq:commender}$

30 responses

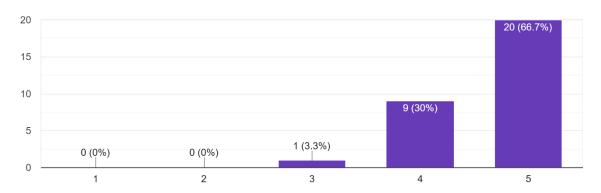


The AI Personalised Drink Recommender section had an overall score of 4.61 out of 5, showing that the drink suggestions and smart watch integration were well-received with positive

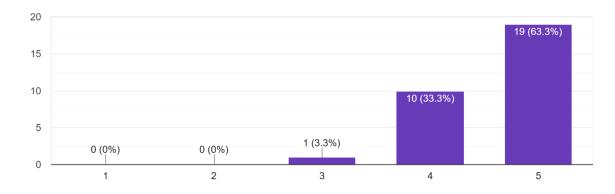
responses. 29 surveyees agreed that the AI drink recommender gave helpful suggestions and that it was easy to interact with the drink recommender. 27 surveyees agreed that they would use the recommender again for its suggestions based on lifestyle and body data. Additionally, 28 respondents would trust AI to understand their taste preferences. Finally, 28 respondents agreed that the experience of using the recommender was enjoyable and smooth.

GroupOrder+

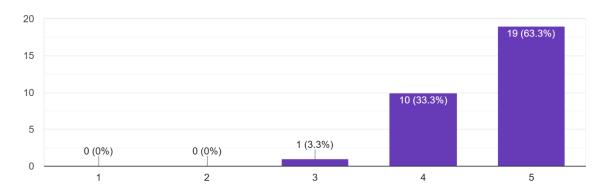
GroupOrder+ made the group ordering process more convenient and efficient. 30 responses



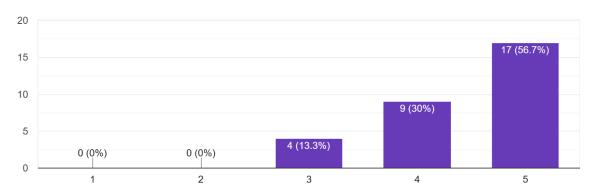
It was easy to create or join a group order using this feature. 30 responses



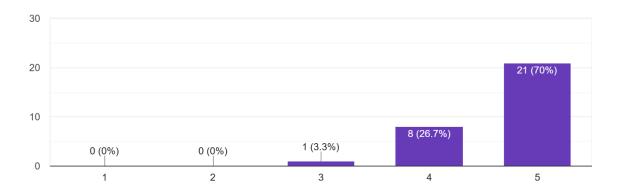
I would use GroupOrder+ with my friends, family, or colleagues if it were available. 30 responses



I trust that GroupOrder+ can accurately combine and manage multiple individual orders. 30 responses



The experience of using GroupOrder+ felt smooth and user-friendly. 30 responses



Meanwhile, GroupOrder+ received a total score of 4.59 out of 5 with 29 respondents agreeing that GroupOrder+ made the group ordering process more convenient and efficient and stating that it was easy to create or join a group order using this feature. 29 respondents also stated that they would use GroupOrder+ with their friends, family, or colleagues if it were available. 26 participants would trust that GroupOrder+ can accurately combine and manage multiple individual orders while 29 surveyees felt that the experience of using GroupOrder+ felt smooth and user-friendly.

3.2 Overall Question Ranking

Question	Score	Ranking		
Minigames	Minigames			
The minigames make the app more fun and engaging.	4.3	7		
The games were easy to understand and play.	4.7	1		
Having minigames makes ZUS stand out as a coffee app.	4.5	5		
I feel confident navigating and playing the minigames.	4.67	2		
The minigames were visually and interactively engaging.	4.43	6		
AI Personalised Drink Recommender				
The AI drink recommender gave helpful suggestions.	4.67	2		
It was easy to interact with the drink recommender.	4.63	3		
I would use the recommender again for its suggestions based on lifestyle and body data.	4.63	3		
I trust the AI to understand my taste preferences.	4.5	5		
The experience of using the recommender was enjoyable and smooth.	4.63	3		

GroupOrder+		
GroupOrder+ made the group ordering process more convenient and efficient.	4.63	3
It was easy to create or join a group order using this feature.	4.6	4
I would use GroupOrder+ with my friends, family, or colleagues if it were available.	4.6	4
I trust that GroupOrder+ can accurately combine and manage multiple individual orders.	4.43	6
The experience of using GroupOrder+ felt smooth and user-friendly.	4.67	2

As all of the questions have ratings higher than 4 out of 5, this indicates that users have a positive perception of the proposed features. Although based on the comments, there were suggestions for room for improvement, the strategies shown in the prototype were well-received and did not need to be changed.

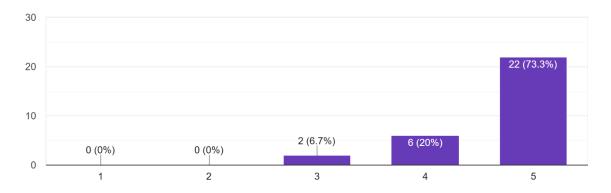
3.3 User Feedback

Feedback Type	Permanent In- App Minigames feature	AI Personalised Drink Recommender	GroupOrder+
Negative	- The match coffee	- User was confused about	- The GroupOrder+
Feedback/	bean minigame was	the smartwatch feature as	feature is only allowed
Suggestions	a little hard to	it was unclear whether the	for pick up.
	interact with as the	feature to connect	Respondents had
	user needed to be	smartwatch was optional	suggested to also
	fast. A common	or compulsory. Although	integrate this feature for
	suggestion was to	the option to connect the	delivery.

	extend the duration	user's smartwatch was	- One user seem to have
	before the cards flip	stated to be optional, this	missed out on the
	back to improve	may not be visible and	benefits of the group
	user interaction.	therefore needs to be	order feature and
		amended on.	suggested to add
			discounts as an incentive
	- One respondent		to use this feature
	felt that the spin the		despite this feature
	wheel game was		already being
	unattractive with		implemented both in the
	dull colours and		homepage and the
	suggested changing		payment page.
	the colour scheme		
	to be more vibrant.		
Positive	Users felt that the pro	ocess was smooth and user-fri	endly.
Feedback			

3.4 Conclusion of Alpha Testing

Overall, I am satisfied with the experience of using this prototype. $\ensuremath{\mathtt{30}}$ responses



In summary, 28 out of the 30 respondents felt that they were satisfied with the experience of using this prototype which is evident by the overall survey score of 4.67 out of 5. This indicates

that the prototype interface was user-friendly with high user satisfaction. The commentary feedback from the survey respondents were later used to amend the initial prototype.

4.0 Final Prototype (The Minor Changes)

Final Prototype Figma Link:

https://www.figma.com/design/CNXTNvdDey5dBqM3OBXpIA/ZUS-Coffee-Mobile-App?node-id=17-4340&t=0dxBPdVAMH6PXqhk-1

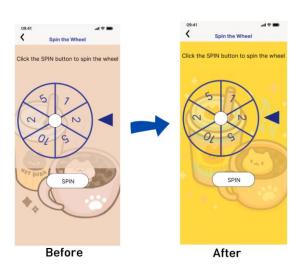
Final Prototype Preview Link:

https://www.figma.com/proto/CNXTNvdDey5dBqM3OBXpIA/ZUS-Coffee-Mobile-App?node-id=17-4340&t=0dxBPdVAMH6PXqhk-1

Several improvements have made to the initial prototype of ZUS mobile app based on the feedback from alpha testing. Besides the following stated improvements made, the other changes remained the same.

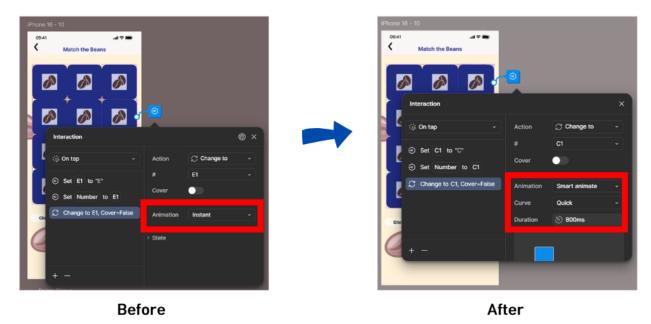
4.1 Minigames

1. The background colour of the "Spin the Wheel" game was enhanced to improve visual appeal and create a more vibrant and engaging interface.



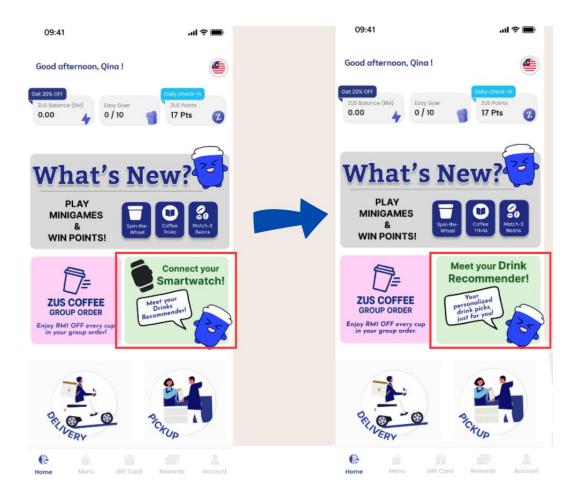
2. The card-flipping animation in the "Match the Bean" game was intentionally slowed down to allow users more time to view each card clearly. In the initial prototype, the animation lasted

approximately 1 second; after refinement, it was extended to around 2 seconds (800ms) for better visibility and user experience.

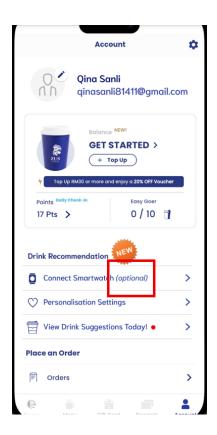


4.2 AI Personalised Drink Recommender

1. The original homepage heading, "Connect Your Smartwatch," unintentionally led users to believe that owning a smartwatch was necessary to access drink recommendations. This misunderstanding discouraged users without a smartwatch from engaging with the feature. To make the functionality clearer and more inclusive, the heading was changed to "Meet Your Drink Recommender." This new title better communicates that the feature is available to all users, regardless of whether they have a smartwatch, and focuses on the core value of personalized drink suggestions.



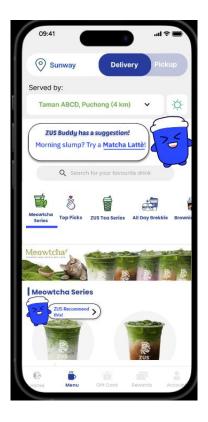
2. We updated the Account page by clearly marking the "Connect smartwatch" option as "Optional." This clarification ensures that users understand that the smartwatch connection is not required and simply enhances the experience if available. Together, these changes help reduce confusion and improve the overall accessibility and usability of the feature.



4.3 GroupOrder+

Initially, the GroupOrder+ feature was limited to only pickup orders which negatively affects the overall convenience as customers who would prefer to order remotely would not be able to use this feature. After gathering the feedback from the alpha testing, the GroupOrder+ strategy was improved by introducing a delivery option.

This was a useful improvement as it would improve efficiency for customers to order from the app with their friends, families or colleagues without needing to designate someone to pick up the drinks physically. Additionally, this would also increase the app usage as this would encourage group ordering at social gatherings. Moreover, users would prefer using the app instead of other third-party delivery platforms such as Grab or Food Panda as ZUS Coffee app would provide incentives like discounts of RM1 off with each order.



5.0 Beta Testing

Link to the survey question: https://forms.gle/6SoCt9CMy7phVpvK8
Link to the Beta Testing response:

https://docs.google.com/spreadsheets/d/1mZ5JE9SQerDmazbhnUIXXLZiJVi8Feu1FwTFlm2g-Ps/edit?resourcekey=&gid=1245648706#gid=1245648706

5.1 Beta Testing Results & Analysis

We conducted beta testing for our final prototype by collecting responses from a total of 32 participants. The survey contained three main sections for each strategy, with 5 to 6 questions per section following the Technology Acceptance Model (TAM) to evaluate users' acceptance and perception of the proposed features.

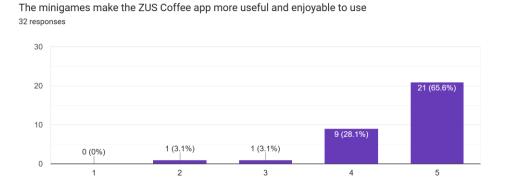
What is your age group? 32 responses • Under 18 • 18 - 24 • 25 - 30 • 31 - 35 • 35 and above

Among the respondents, 87.5% (28 respondents) were aged between 18 and 24 years old, 9.4% (3 respondents) were aged between 25 and 30, while 3.1% (1 respondent) was aged 35 and above.

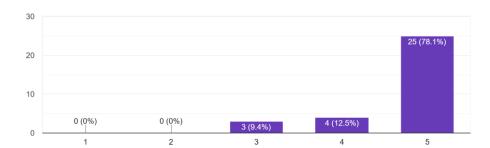


Most participants reported that they used the ZUS Coffee app occasionally or rarely, while 5 respondents use the app weekly, 5 use it daily, and 5 have never used the app before.

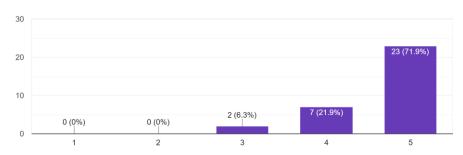
Mini Games:



The minigames were easy to understand and play without confusion 32 responses

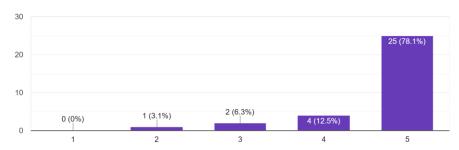


Including minigames enhances the uniqueness of the app compared to others $\ensuremath{^{32}}\xspace$ responses

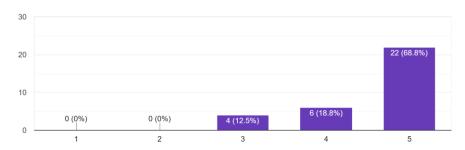


I feel confident using the minigames even without prior instructions

32 responses

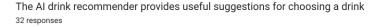


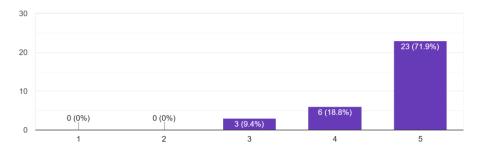
The minigames were visually appealing and provided an engaging experience 32 responses



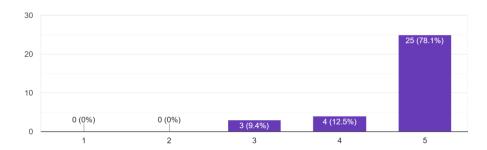
For the Mini Games feature, the average score was 4.63 out of 5, indicating a positive and engaging user experience. A total of 30 respondents agreed that the minigames were useful and enjoyable to play. Meanwhile, 29 participants found the games easy to understand and play, which suggests that the gameplay was intuitive and user-friendly. Additionally, 30 respondents believed the minigames added uniqueness to the ZUS app compared to other similar platforms. 29 users confidently used the feature without prior instructions, indicating the design is self-explanatory. Furthermore, 28 respondents agreed that the minigames were visually appealing and provided an engaging experience.

AI Personalised Drink Recommendations:

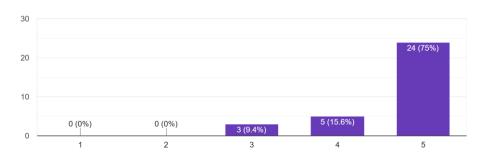




Interacting with the drink recommender felt easy and straightforward $_{\rm 32\,responses}$

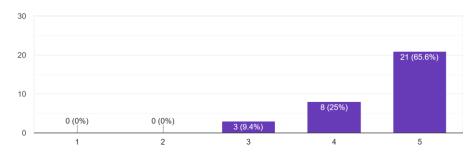


The recommendations felt personalized to my lifestyle and body data 32 responses

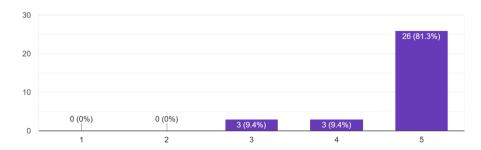


I trust the AI to understand my flavor preferences

32 responses



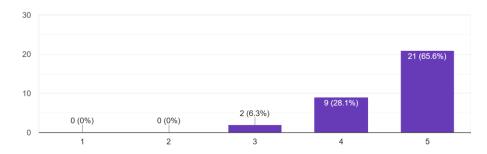
Using the recommender was a pleasant and seamless experience. 32 responses



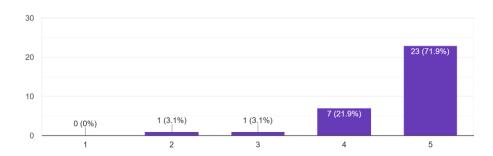
The AI Personalised Drink Recommendations received an average score of 4.65 out of 5. This feature was well-received, with 28 respondents agreeing that it offered useful suggestions for choosing drinks. Moreover, 29 users found the recommendation process easy and straightforward, and the same number of respondents felt that the suggestions were personalized to their lifestyle and body data. Another 29 participants stated that they trusted the AI to understand their flavour preferences. Overall, 29 respondents described their experience using the recommender as pleasant and seamless. This shows both usability and satisfaction.

Group Order+:

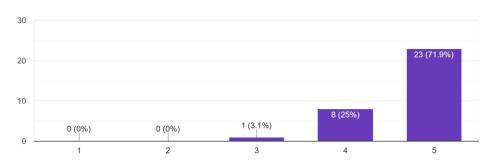
It was easy to navigate the process of making a group order through GroupOrder+ 32 responses



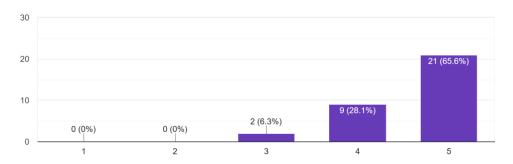
It was easy to create or join a group order using this feature $\ensuremath{\mathtt{32}}\xspace$ responses



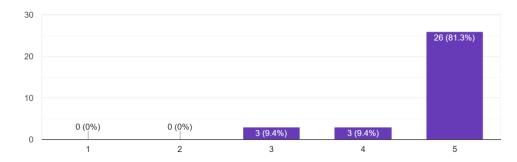
I could clearly view and manage everyone's orders before checking out through GoupOrder+ 32 responses



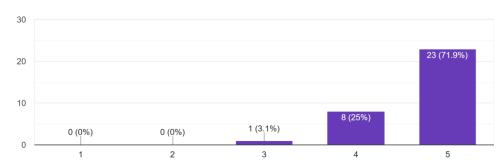
The checkout and payment process for the group order was smooth and intuitive $_{\rm 32\,responses}$



I feel confident using the group ordering feature without needing help 32 responses



The experience of using GroupOrder+ felt seamless and well-designed 32 responses



The GroupOrder+ feature achieved an average score of 4.65 out of 5. A total of 30 respondents said it was easy to navigate the process of placing a group order using GroupOrder+. The same number found it easy to create or join a group, although 1 participant expressed disagreement. Another 30 users reported that they were able to clearly view and manage everyone's orders before checking out, and the same number agreed that the checkout and payment process was smooth and intuitive. 29 respondents confidently used the feature without help. Furthermore, 30 respondents felt that the overall experience using GroupOrder+ was seamless and well-designed.

5.2 Overall Question Ranking

Question	Score	Ranking
Minigames		

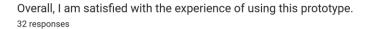
The minigames make the ZUS Coffee app more useful and	4.56	3
enjoyable to use		
The minigames were easy to understand and play without	4.69	1
confusion		
Including minigames enhances the uniqueness of the app	4.66	2
compared to others		
I feel confident using the minigames even without prior	4.66	2
instructions		
The minigames were visually appealing and provided an	4.56	3
engaging experience		
AI Personalised Drink Recommen	dations	1
The AI drink recommender provides useful suggestions for	4.63	4
choosing a drink		
Interacting with the drink recommender felt easy and	4.69	2
straightforward		
The recommendations felt personalized to my lifestyle and body	4.66	3
data		
I trust the AI to understand my flavour preferences	4.56	5
Using the recommender was a pleasant and seamless	4.72	1
experience.		
ZUS Group Order+		
It was easy to navigate the process of making a group	4.59	4
order through GroupOrder+		
It was easy to create or join a group order using this	4.63	3
feature		
I could clearly view and manage everyone's orders before	4.69	2
checking out through GoupOrder+		
The checkout and payment process for the group order was	4.59	4
smooth and intuitive		
I feel confident using the group ordering feature without	4.71	1
needing help		
The experience of using GroupOrder+ felt seamless and	4.69	2
well-designed		

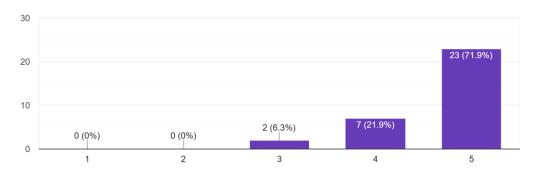
As all the questions received ratings higher than 4.5 out of 5, this indicates that users have a positive perception of the three proposed features. It reflects a high level of user satisfaction and a positive overall experience with the features on the ZUS Coffee app.

5.3 User Feedback

In addition to the quantitative feedback, several participants shared positive comments. These included remarks such as, "The prototype is user-friendly," "The group order idea is great," and "I would be happy to use the ZUS app if these features were implemented." However, we also received some negative feedback, though not many. One respondent noted, "It takes time to explore the features," while another mentioned that the "Match the Coffee Bean" game was a bit janky but overall great for a prototype.

5.4 Conclusion of Beta Testing





30 out of 32 participants were satisfied with the new features introduced in the ZUS Mobile App, with an average score of 4.66 out of 5, reflecting strong user approval. These results suggest that the Mini Games, AI Personalized Drink Recommendation, and GroupOrder+features are well-designed, functional, and add significant value to the overall user experience. This aligns with ZUS Coffee's goals of enhancing convenience, embracing tech-driven innovation, and prioritizing user experience by delivering a more personalized, interactive, and seamless app experience.

6.0 Video Presentation

Link: https://youtu.be/Z4LaBNcTIGc?si=6Y1mAM 61upLEz0T

