



Design and Product Process

Digital product design process

Document Information

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Modification History

The document modification date: Sun Aug 23 2020

Version	Date	Author	Comments
1.0	August 2020	Miyuki Yamauchi	Explaining design process for tasks (Car parking and Fashion retailer)



003. Purpose	3
004. Ideal process	4
005. Task briefs	5
006. Task 1 - University car park	6
007. Task 1 - Understanding	7
008. Task 1 - Current flow and problems	8
009. Task 1 - Suggestions	9
010. Task 1 - Flow diagram	10
011. Task 1 - Expected results	11
012. Task 2 - Fashion retailer	12
013. Task 2 - Understanding	13
014. Task 2 - Flow	14
015. Task 2 - Suggested flow	15
016. Task 2 -Sample visuals - 1	16
017. Task 2 -Sample visuals - 2	17
018. Task 2 -Sample visuals - 3	18
019. Thank you.	19



003. Purpose

Purpose

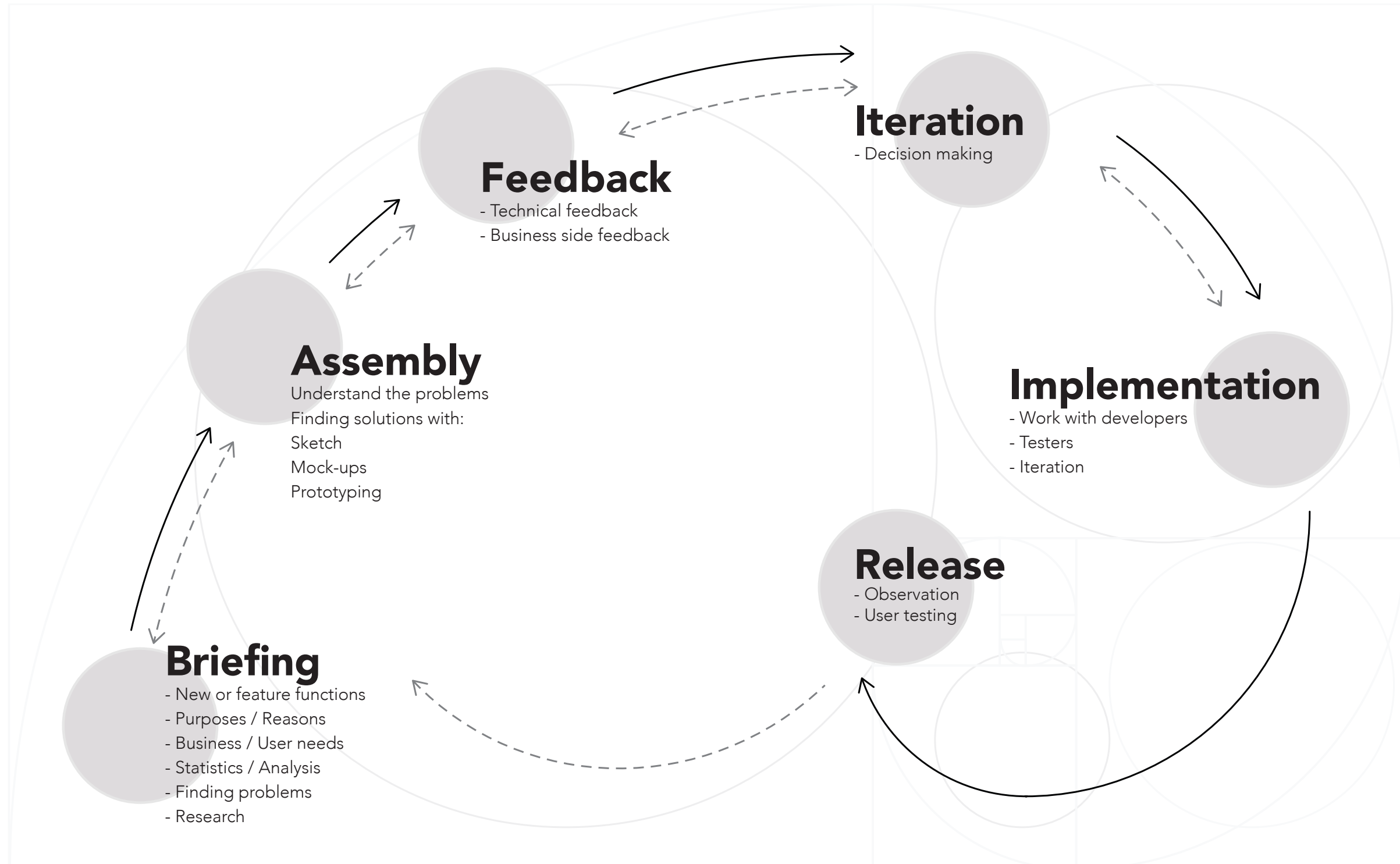
The purpose of this document is to outline and explain my work process based on given tasks below. This document should describe the high-level structure and the relationship between functional components, in order to deliver the required solution. It is not intended to be a complete documentation of the tasks but explaining what I see are fundamental aspects of any design.

This completed document will be the primary reference check to validate content elements, build and development mechanics.

Task summary

- 1) A university campus parking lot mobile app
- 2) An online fashion retailer payment process on the mobile app

This document is also targeting the following audience:
Product Managers, Tech Lead, Business stakeholders, designers, Testers.





1) A university campus parking lot mobile app

Background

A university campus parking lot that allows customers to pre-book parking bays for extended periods at a discounted rate has noticed that a large proportion of customers have been sharing their entry codes.

Challenge

Create a proposal that helps the university change this behaviour whilst continuing to build its customer base on their mobile app.

2) An online fashion retailer payment process on the mobile app

Background

An online fashion retailer is expanding its existing payment options of credit cards to allow for a host of new finance options including (but not limited to) Apple Pay, After-pay, and PayPal. They regularly have customers that use credit from returns or promotional coupons.

Challenge

Design a payment experience that provides future flexibility for the online fashion retailer if they were to keep adding payment options.



1) A university campus parking lot mobile app

Background

A university campus parking lot that allows customers to pre-book parking bays for extended periods at a discounted rate has noticed that a large proportion of customers have been sharing their entry codes.

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Create a proposal that helps the university change this behaviour whilst continuing to build its customer base on their mobile app.

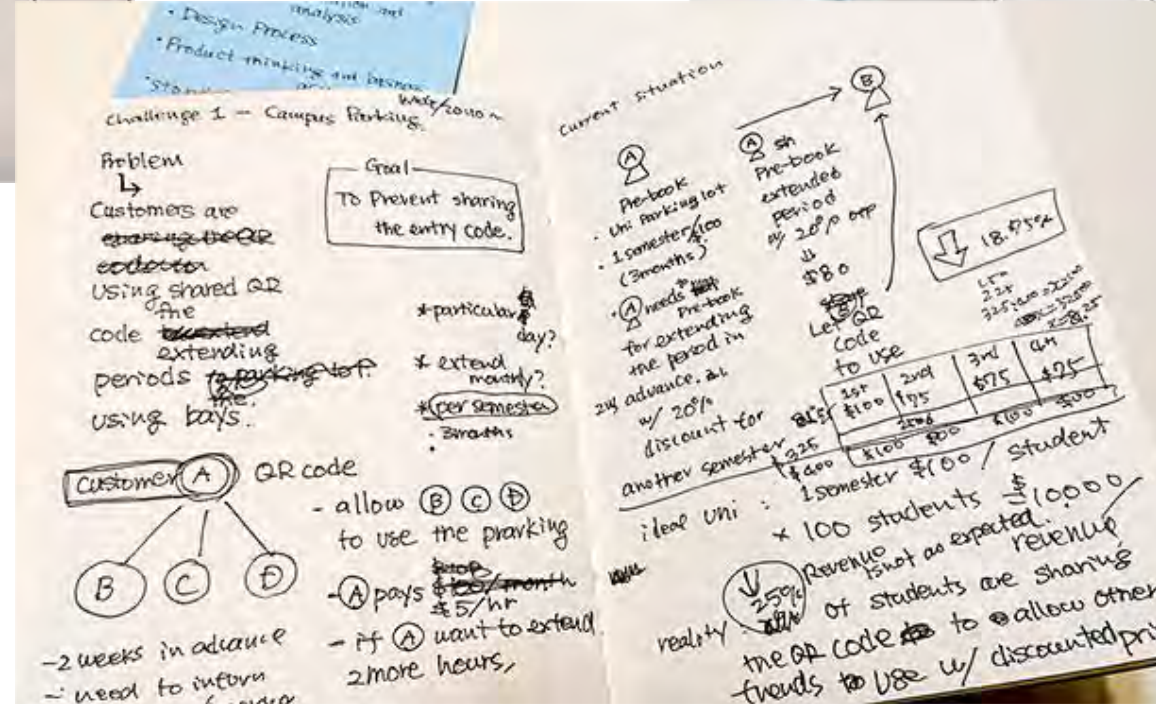
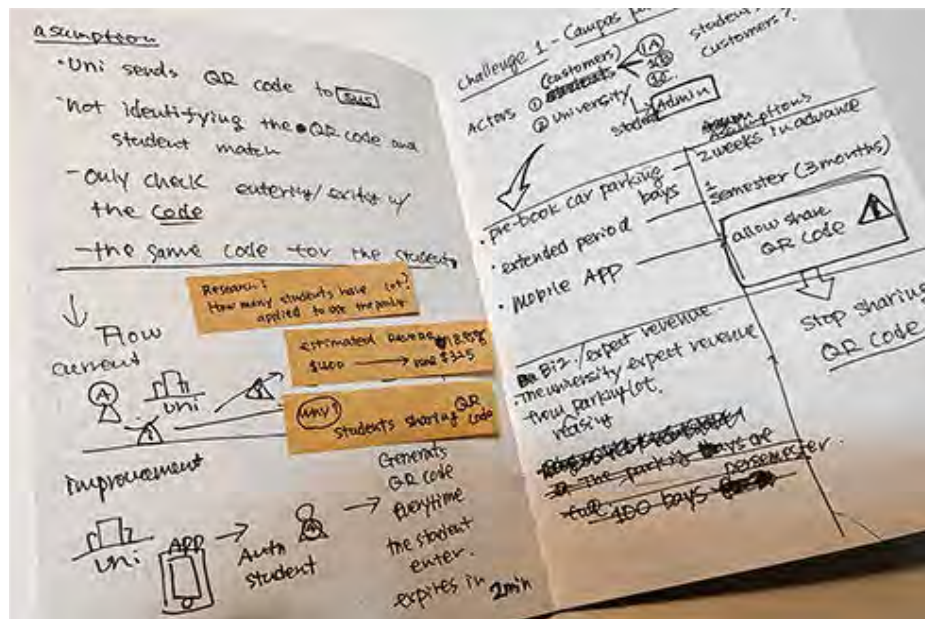
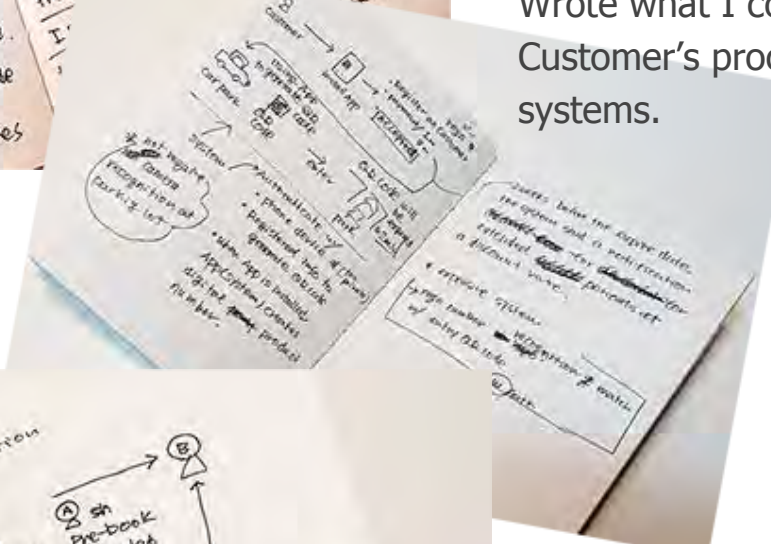
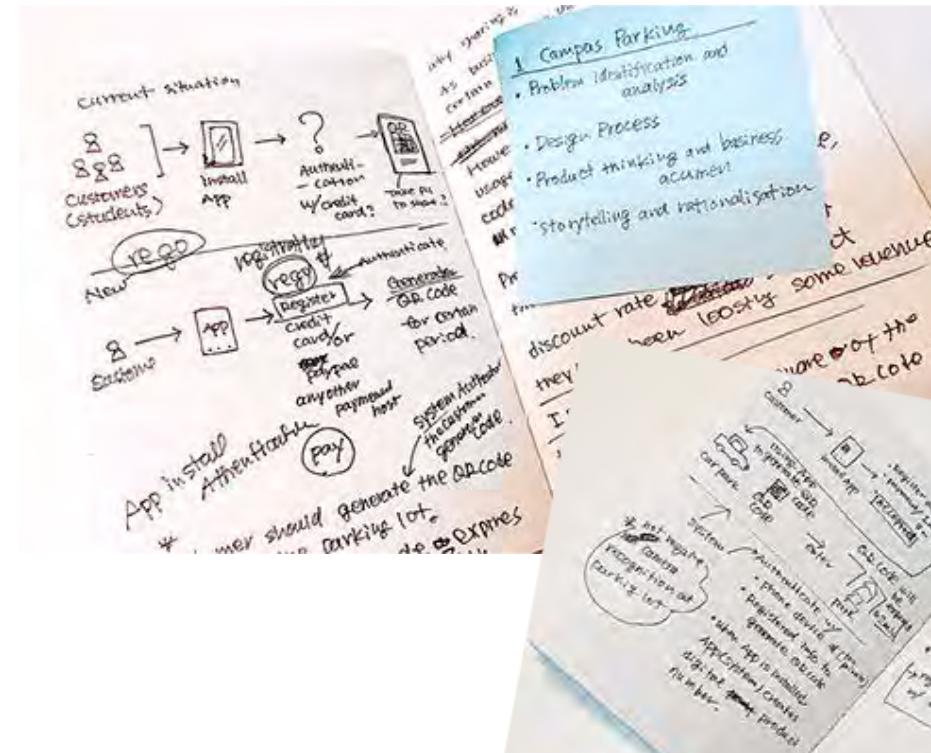
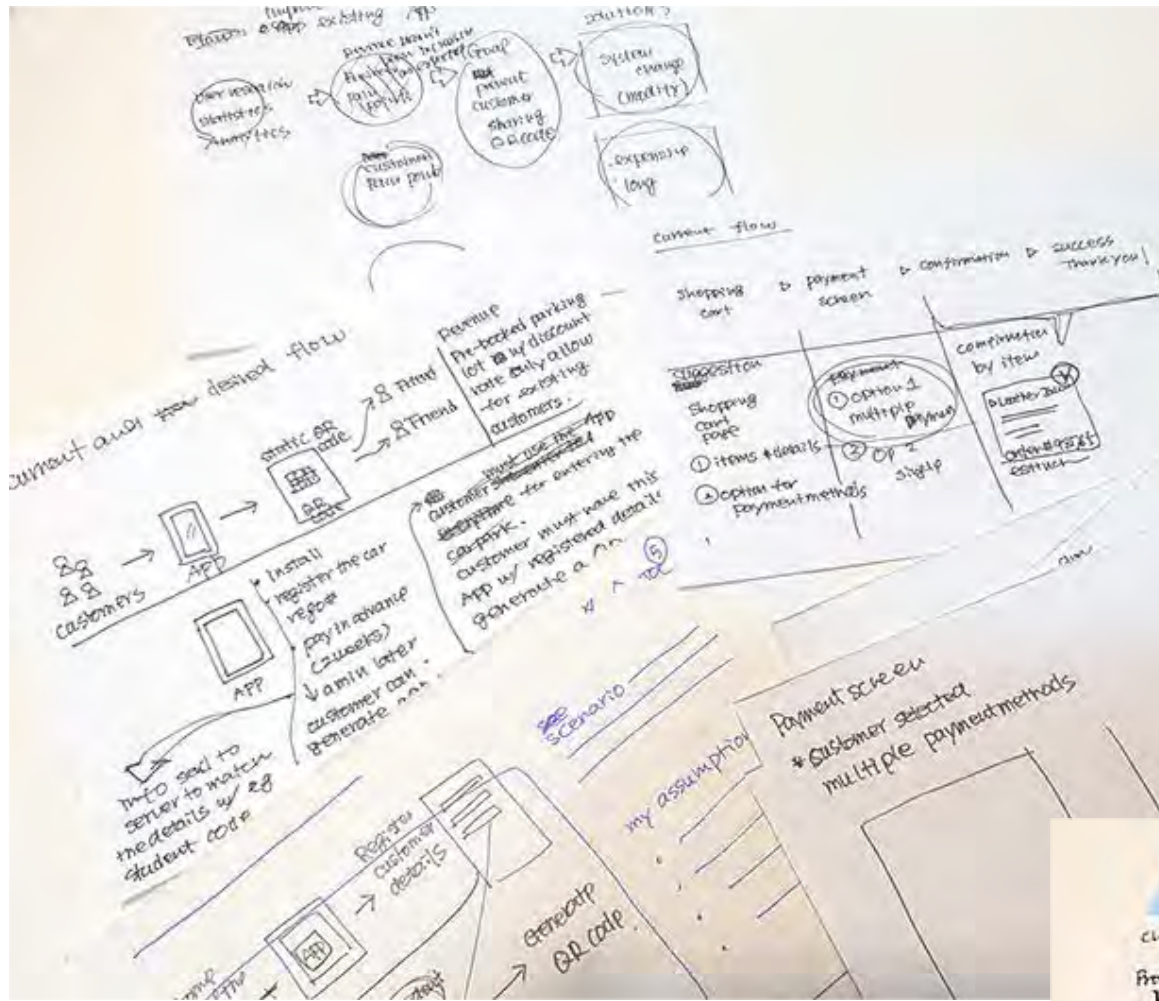


007. Task 1 - Understanding

Prev.

Next

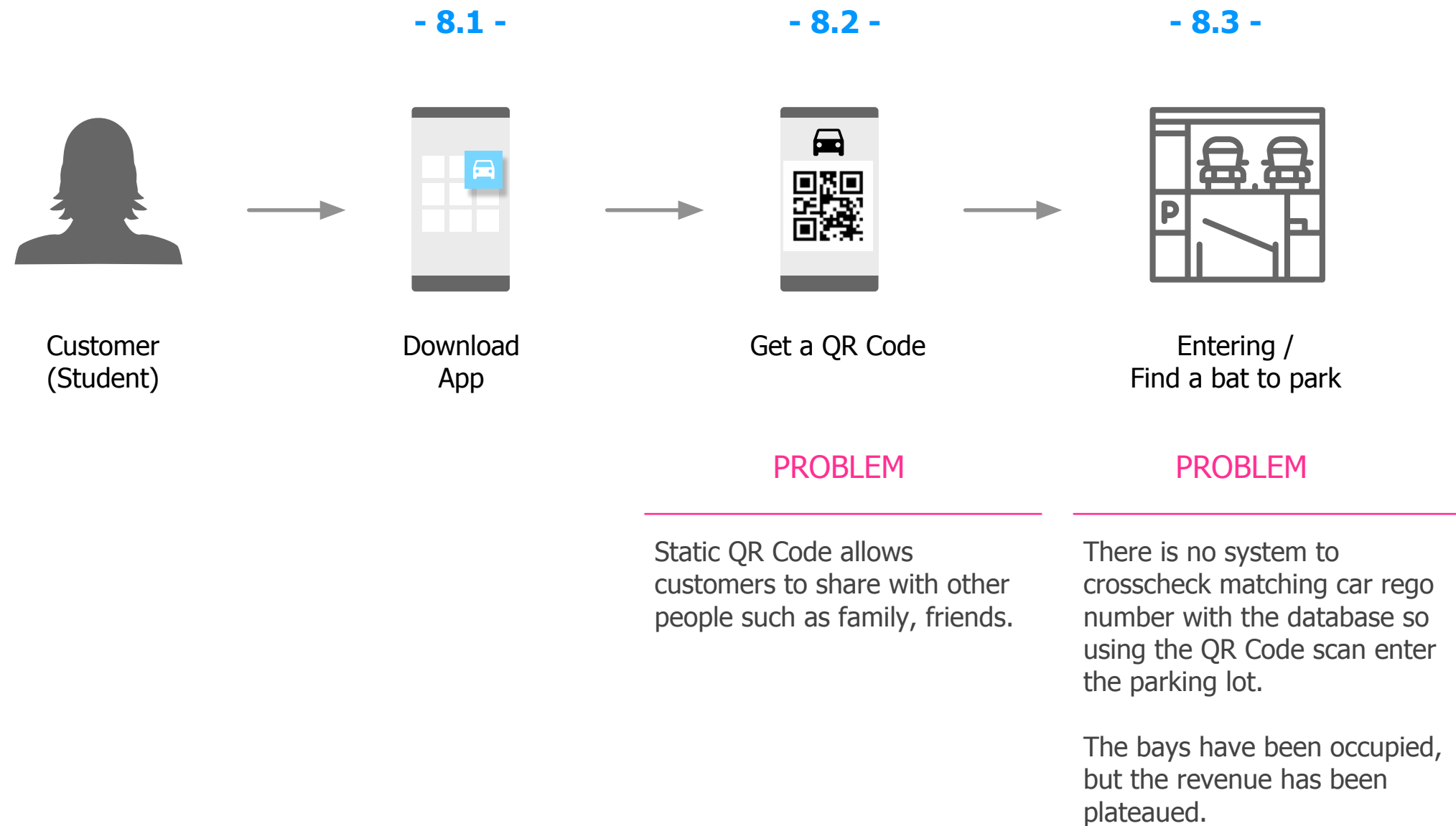
Table of contents



Understanding customer journey

Free thinking process. Back to brief, and processing its situations of customers and systems step by step.

Wrote what I could think of Customer's process, along with all systems.



Annotation notes

8.1
A customer downloads the app or goes to the Book car park section of the university student within the university app.

8.2
Upon registering the details, the Customer receives the QR Code.

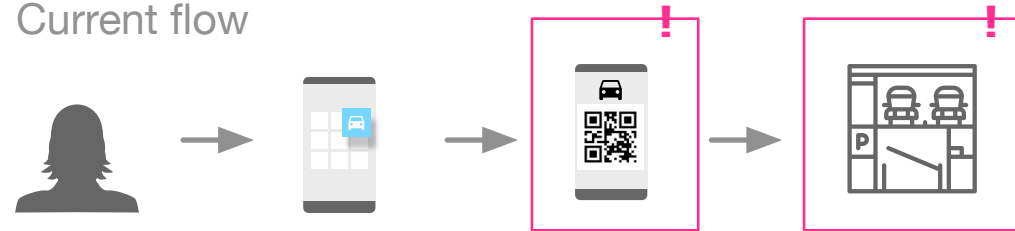
The code will be available during the requested period.

When the Customer wants to expend the period, the discounted rate will be available in 2 weeks advanced booking. When the request is authorised, the Customer can **continue to use the QR code.**

8.3
Scan the RQ code to entering and park at any bay.



Current flow



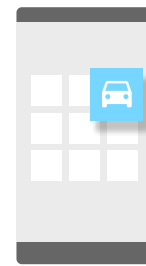
- 9.1 -

- 9.2 -

- 9.3 -



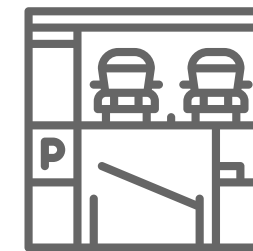
Customer (Student)



Register



Generate QR Code



Entering / Find a bat to park

For customers:

- Install the app
- Register car rego number
- Customer and Payment details
- Book the bay number and period, at least 2 weeks in advance

System requirement:

- Store all information from the registration phase
- Identify device (iOS or Android) for payment purposes
- Record all logs

For customers:

- Require to generate the QR Code every time entering the parking lot
- The QR code expires in 1 minute
- The system sends notification when the period is about to expire and recommend a discount rate.

System requirement:

- When launch the app, the mobile app sends a request to authenticate the customer, whether registered customer or not.
- From customer's request, the system generates QR Code.
- The QR code expires in 1 minute to prevent sharing the code.

Annotation notes

9.1

All customers are required to use the mobile app to use the car park. Register all the details. The system references the Customer and its database.

9.2

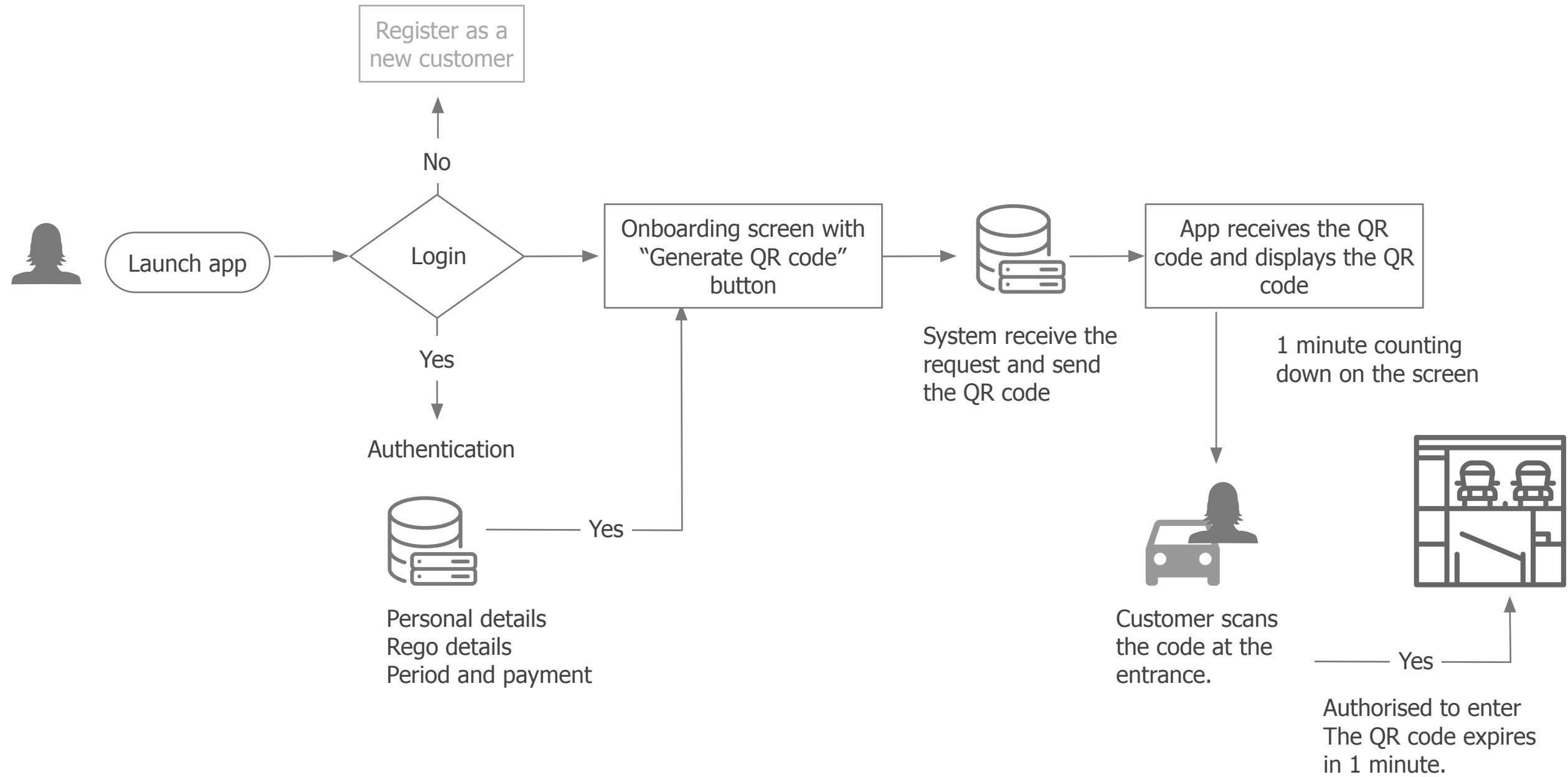
A brand new QR Code must be generated using the app.

9.3

Scan the QR code at the entrance. If it takes more than 1 minute, the Customer can request it again. The system checks the Customer with one generated QR Code.



010. Task 1 - Flow diagram





011. Task 1 - Expected results

Expected Results

One Customer is limited to one QR code to enter the parking lot, and the QR code expires in a specific time so that it prevents sharing the code with others.

The university can plan the revenue stream and discover how many customers are extending the period using pre-booking with discount rate. The numbers or percentages could be use for the university's deciding the discount rate or even for a marketing campaign.

We are tracking the unique customer number to identify further parking usage, and an efficient/productive way for knowing the status quo of the parking lot.





2)

An online fashion retailer payment process on the mobile app

Background

An online fashion retailer is expanding its existing payment options of credit cards to allow for a host of new finance options including (but not limited to) Apple Pay, After-pay, and PayPal. They regularly have customers that use credit from returns or promotional coupons.

Challenge

Design a payment experience that provides future flexibility for the online fashion retailer if they were to keep adding payment options.



Understanding customer journey

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Wrote what I could think of Customer's process, along with all systems.





Annotation notes

14.1

Shopping cart page will list customers selected items and its details such as price, colours, sizes and quantity.

14.2

Proceeding to the payment screen, display item list, rice and total price. Only name of items and price are visible. Other details are hidden in this page.

Select a payment method from the available list, but current customers can select only one credit method.

14.3 Objectives

- 14.1 -



Shopping Cart



- 14.2 -



Payment screen



Confirmation



Success

Objective - 14.3 -

When Customer purchases multiple items, we allow customers to select and use various payment methods.

Upon successful payment, it provides a unique order number to identify returns or refunds.



015. Task 2 - Suggested flow

[Prev.](#)[Next](#)[Table of contents](#)

15 / 19



Shopping Cart

- 15.1 -

In this screen, when there is more than one item, display the options for payment methods at the bottom of the screen before proceeding.

===

Please select payment options:

- Use one payment method
- Use multiple payment methods



Payment screen

- 15.2 -

When multiple payment methods are selected, show each item in a block, but if the quantity is more than 1 with the same item, this doesn't allow the customer to use separate payment methods.

The third-party payment methods are authorising the payment individually, and available payment method listed. The Customer can select her preferred method by item.

Transition to Payment confirmation screen in each payment completion. For example, Two T-Shirts by PayPal. PayPal launches PayPal app or website to log in. When the payment is made, the screen comes back to the app and The Customer can continue to pay other items.

Please see the mockups on following pages.



Confirmation



Customer order details

- 15.3 -

Annotation notes

15.1 Shopping cart

Add options

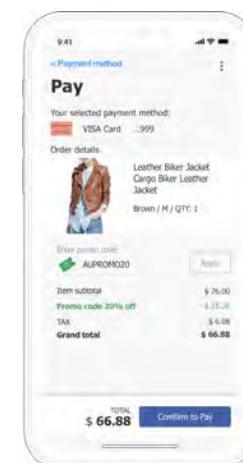
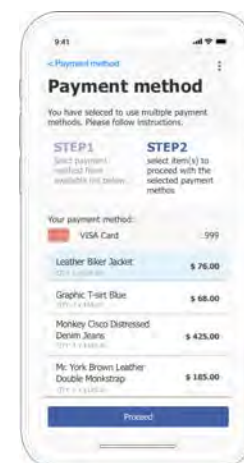
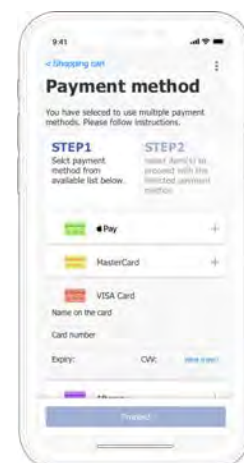
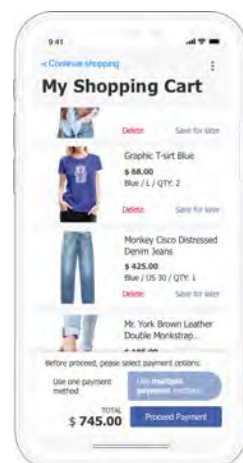
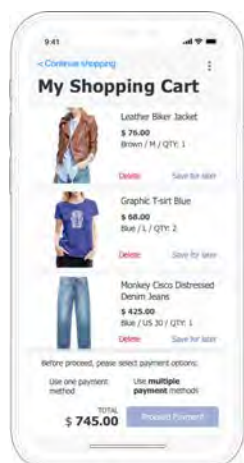
15.2 Payment and confirmation screens

These screens are combined. Please see the mockups following pages.

15.3 Customer order details

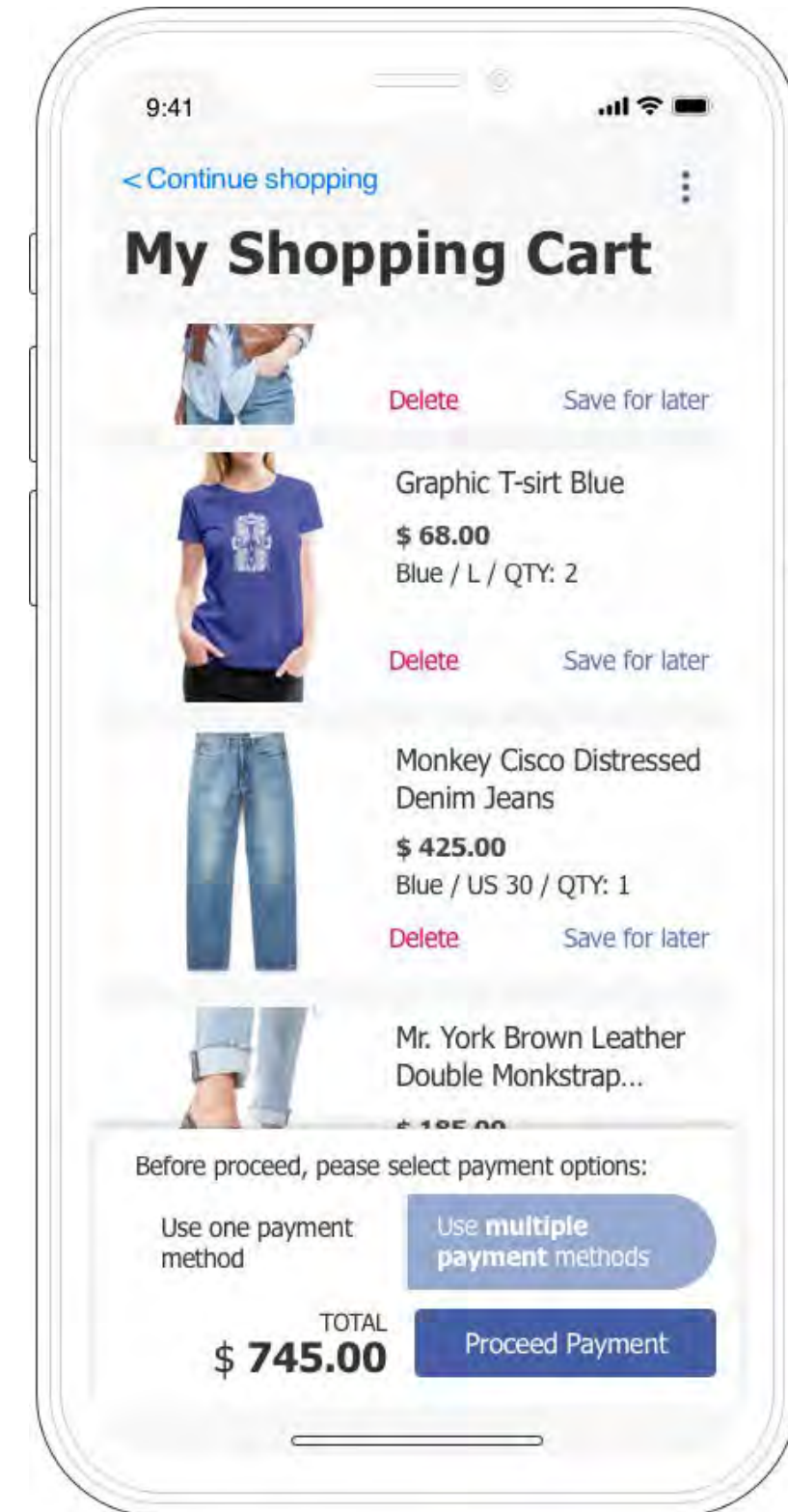
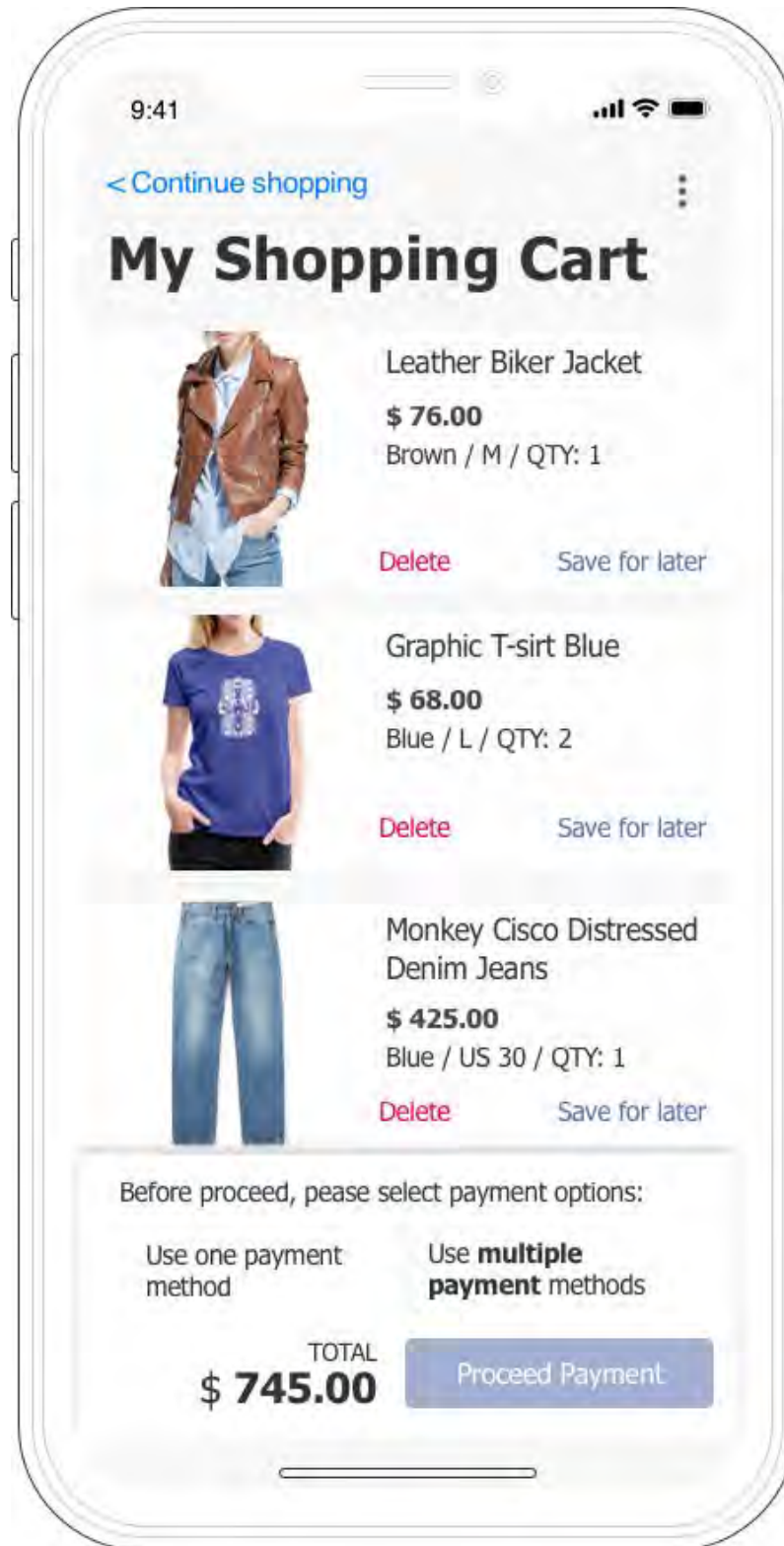
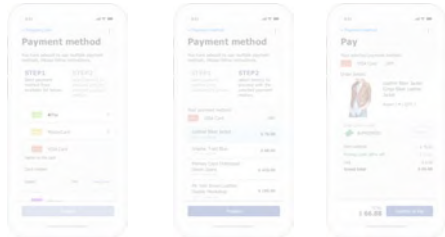
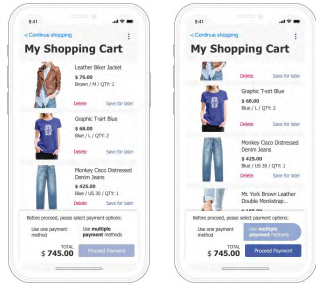
Customer order details

p.s. Wild idea: the retailer represents all the payment parties to ease customers operation. i.e. Customer choose credit methods and rest the retailer look after the variety of payment method for their customers. This way the customer doesn't have to do back and forth to complete all the payment.



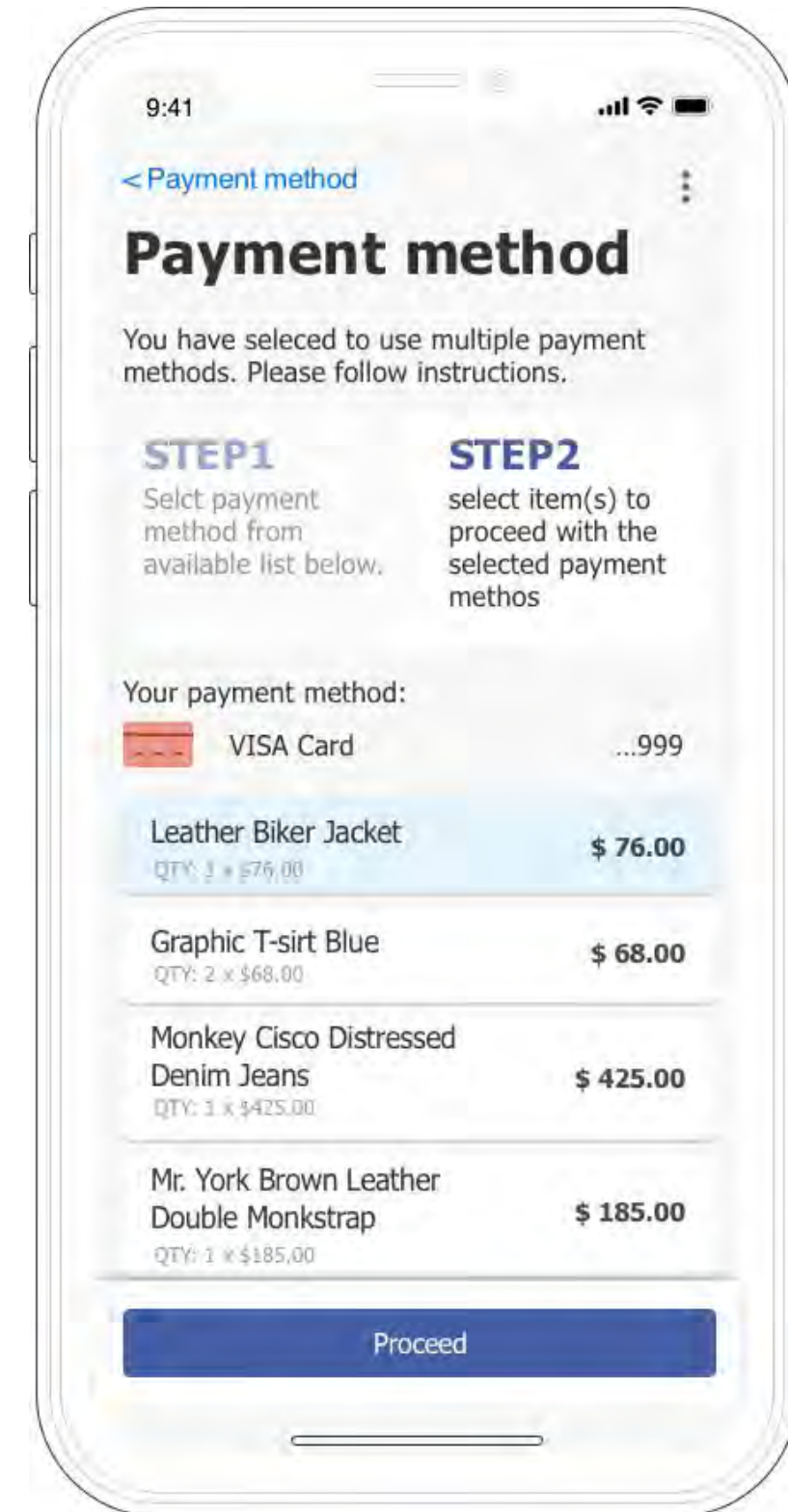
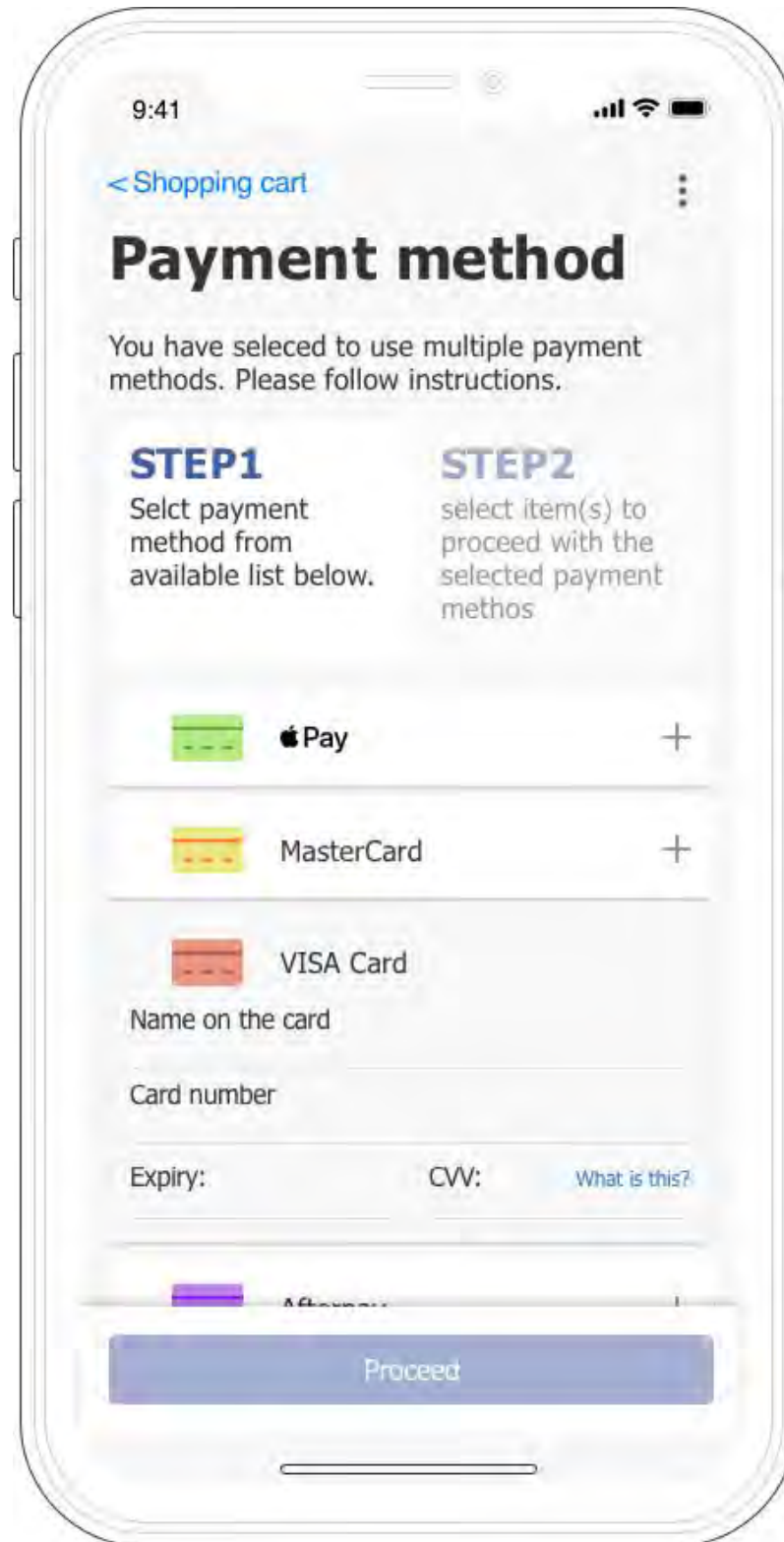
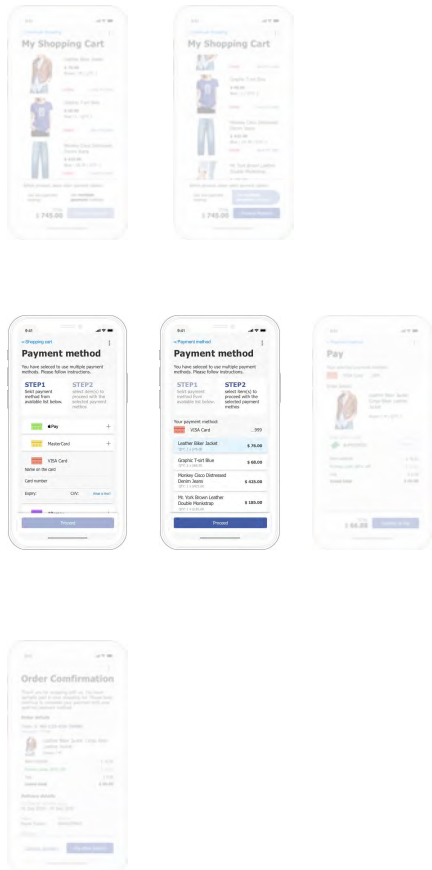


Shopping Cart



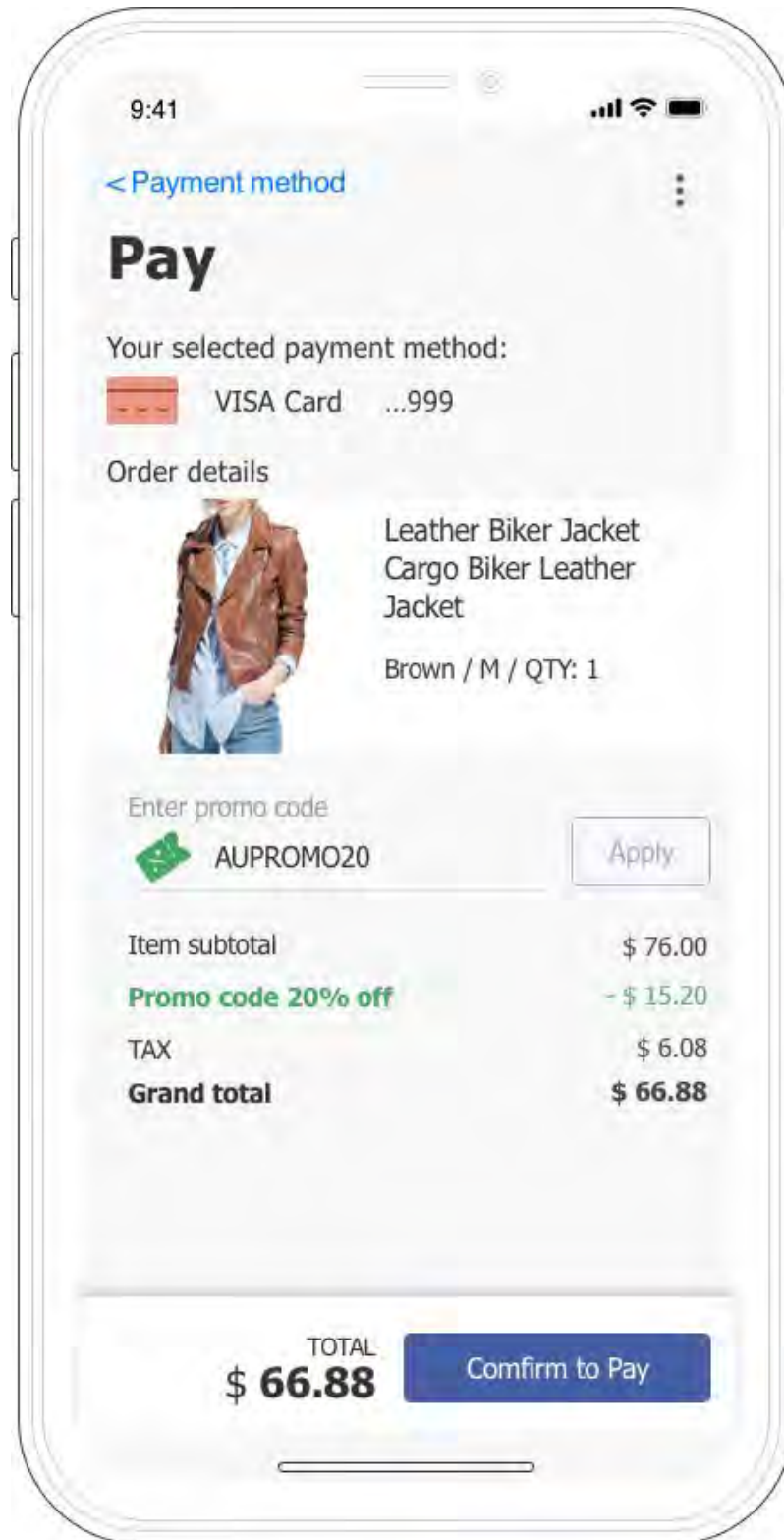
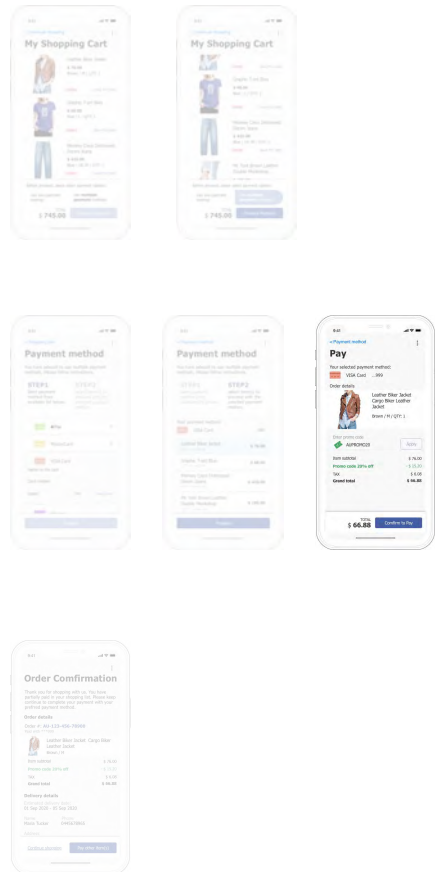


Payment screen

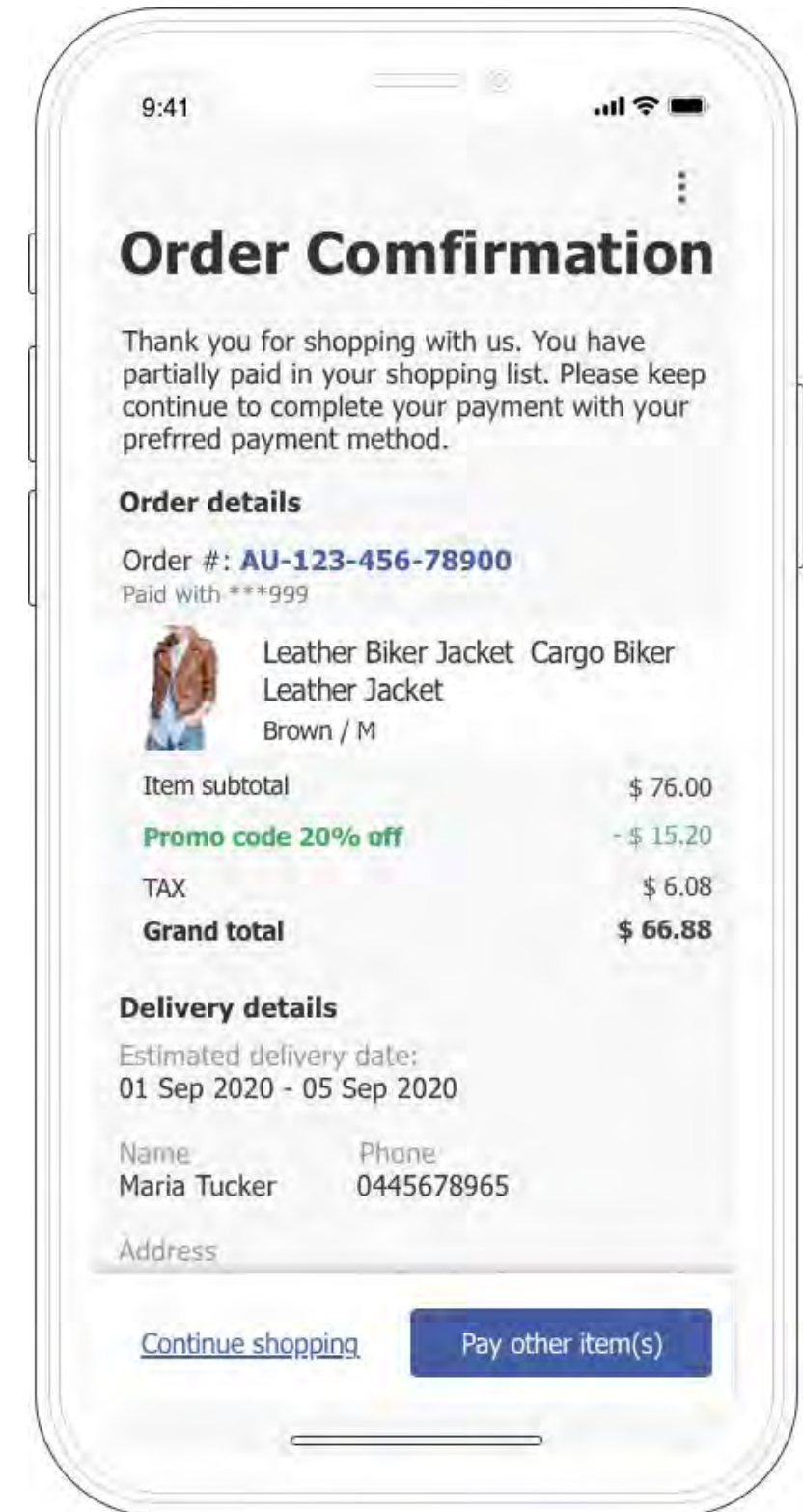
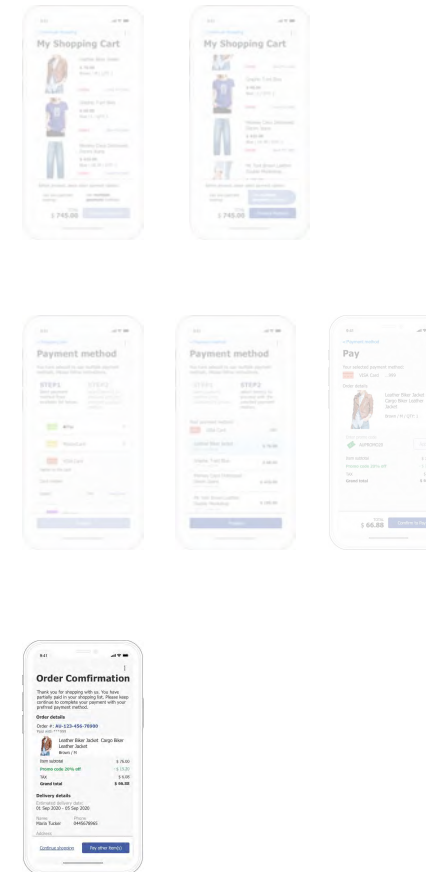




Confirmation



Customer order details





Thank you.