

Group 12

Citi HackOverflow 2021



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Background



"Even though most of my friends shop online, I prefer to shop for clothes at retail outlets as I get to try them before buying."

Alice, Student

"I want to drive business for my clothing shop, but I can't seem to find the right tools to drive sales."



Sam, Entrepreneur

Problem

In the US Market in 2020...



Online sales accounted for **\$861.02 billion.**



Retail sales accounted for **\$3.178 Trillion.**

Retail shopping here to stay, but **contactless**
engagement like QR and NFC show a large market
potential with the growing retail space.

Problem

There are limited integrated platforms for users to purchase/redeem vouchers and make payment in stores.

What do they want?



Consumers



Can't use online deals
for retail stores



Merchants



Trouble reaching a
wider target audience



Want something quick
and fast to use.

Mission

Create a multi-user application to allow consumers to purchase QR code vouchers and make in-store payment

Solution



Online Marketplace for
Vouchers and Promotions



Innovative QR
Implementation



Driving marketing and
sales for businesses

Alice's Journey



Alice shops for some clothes at H&M



QR

Customer scans QR; payment is completed in one attempt 😊

Payment limit set by customer; no verification needed. 😊

Higher discount passed onto the customer 😊

Alice browses items

Alice Pays for Item

Alice leaves store

Customer pays with NFC smartphone/card; takes a few tries to align and complete payment 😞

Purchase is more than \$100, signature/PIN is required 😞

Lower discount passed on the customer 😞

NFC

Sam's Journey



Sam is managing his store.



QR

Merchant reuses old smartphone for POS



Alice browses items

Merchant needs to purchase POS



No gateway merchant fees



Merchant can drive sales online



Alice Pays for Item

Merchant fees borne by business



Means of marketing are limited



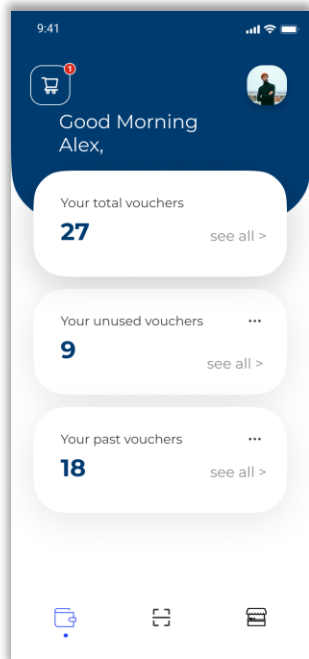
Alice leaves store

NFC

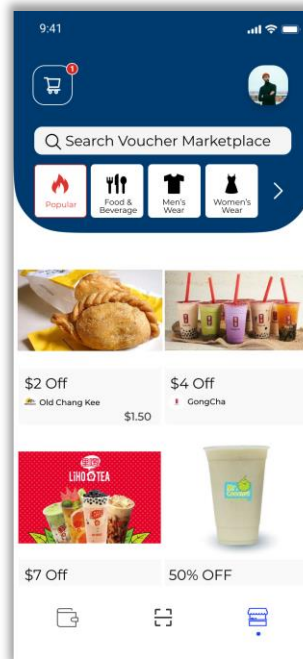


QRioCiti

Solution – User



Clean and intuitive UI/UX

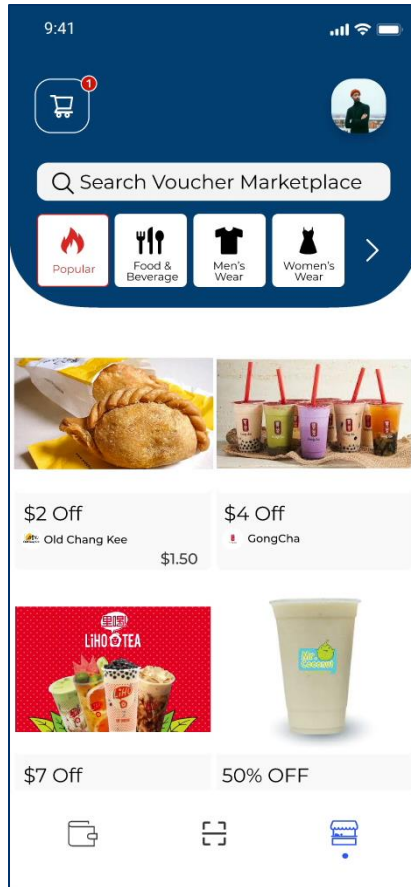


Best in-store savings



Hassle-free payments

Features - User



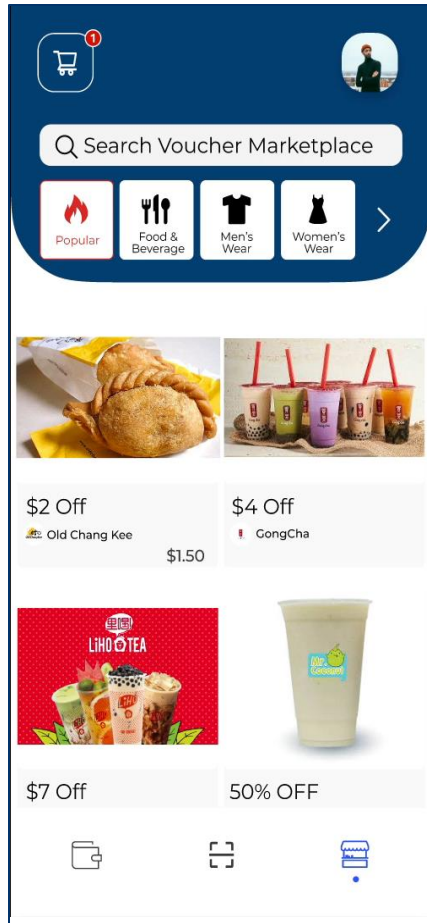
Function

Customer browses and purchases new vouchers for in-store use

Benefits

Increase in-store traffic and generates revenue for Citi

Features - User



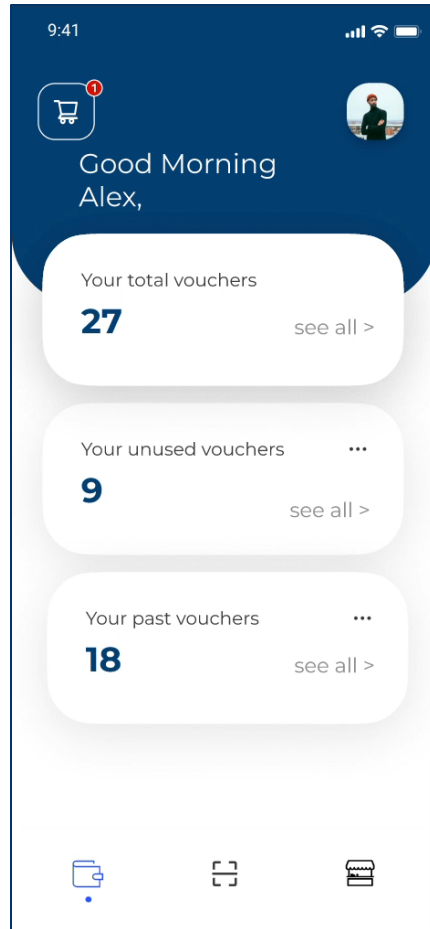
Function

Customer pays from CitiPay balance

Benefits

Bypass merchant (Visa/Master) to increase discounts for customer and revenue for Citi + easier to maintain unified balance

Features - User



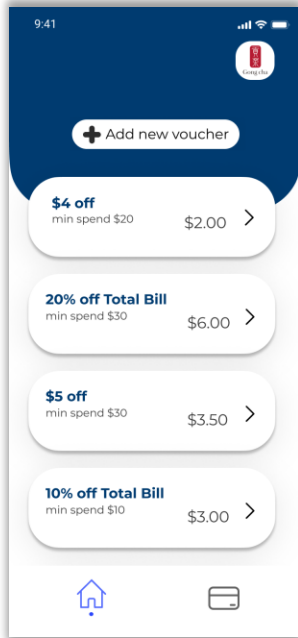
Function

Customer chooses voucher during checkout

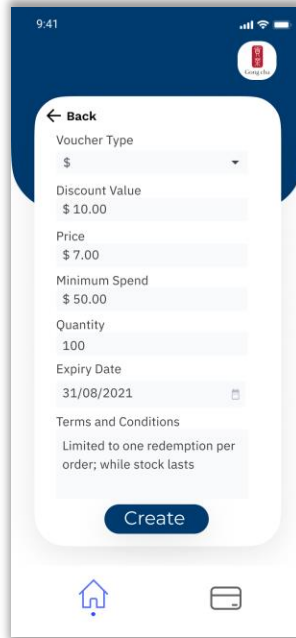
Benefits

Customer always attains best price;
no need to carry physical voucher

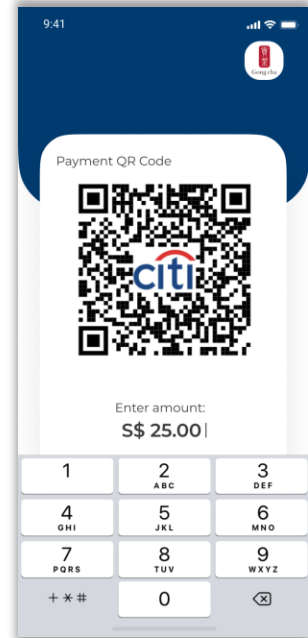
Solution – Merchant



Clean and intuitive UI/UX

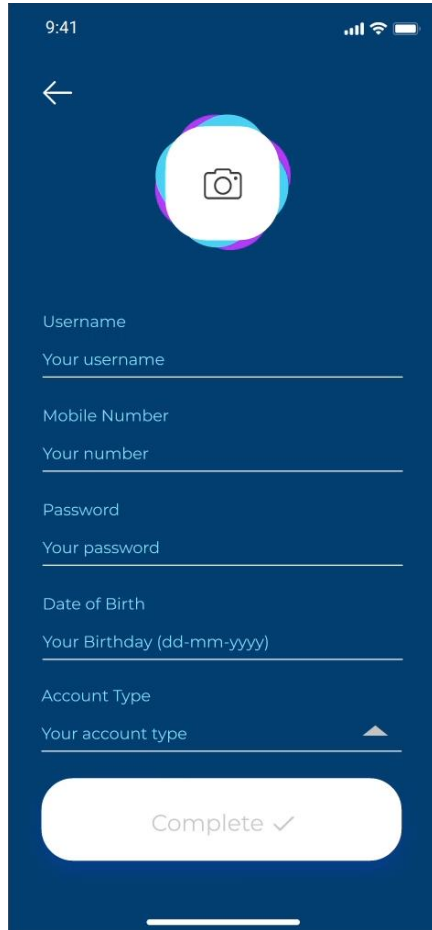


Deals to attract customers



Control over payment amount

Features - Merchant



A screenshot of a mobile application interface for merchant account creation. The background is dark blue. At the top, the status bar shows the time 9:41, signal strength, and battery level. Below the status bar is a back arrow icon. In the center is a circular profile picture placeholder with a camera icon. Below this are several form fields, each with a label and a placeholder text: 'Username' with 'Your username', 'Mobile Number' with 'Your number', 'Password' with 'Your password', 'Date of Birth' with 'Your Birthday (dd-mm-yyyy)', and 'Account Type' with 'Your account type' and a dropdown arrow. At the bottom is a large white button with the text 'Complete ✓'.

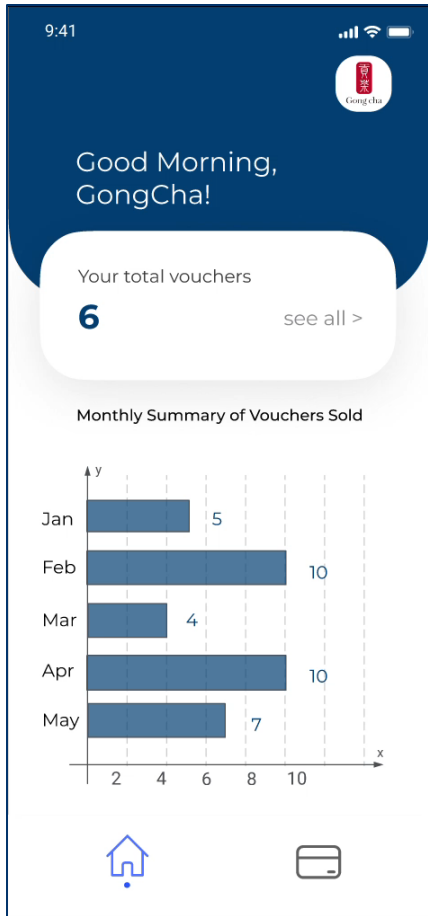
Function

Merchant provides UEN during account creation

Benefits

Transactions are verified against UEN; prevent fraudulent transactions

Features - Merchant



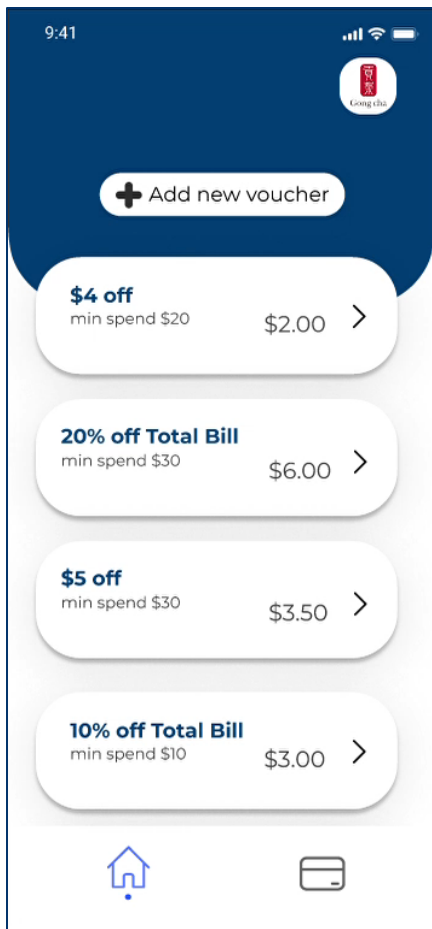
Function

Merchant inputs due amount and generate unique QR code

Benefits

Decrease input from user (open, scan, pay) and reduce transaction duration

Features - Merchant



Function

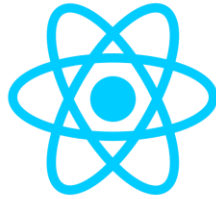
Merchant issues different types of vouchers in limited quantities

Benefits

Increases sales volume for Merchant and revenue is guaranteed regardless of voucher usage

Architecture

Prototype:



+



Mobile
Application:



+



+



Key Metrics



Processing Time

Duration to process each transaction



Engagement

No. of unique transactions per month



Penetration

Total No. of merchants and consumers



Revenue

Fees collected from merchants per month



Growth

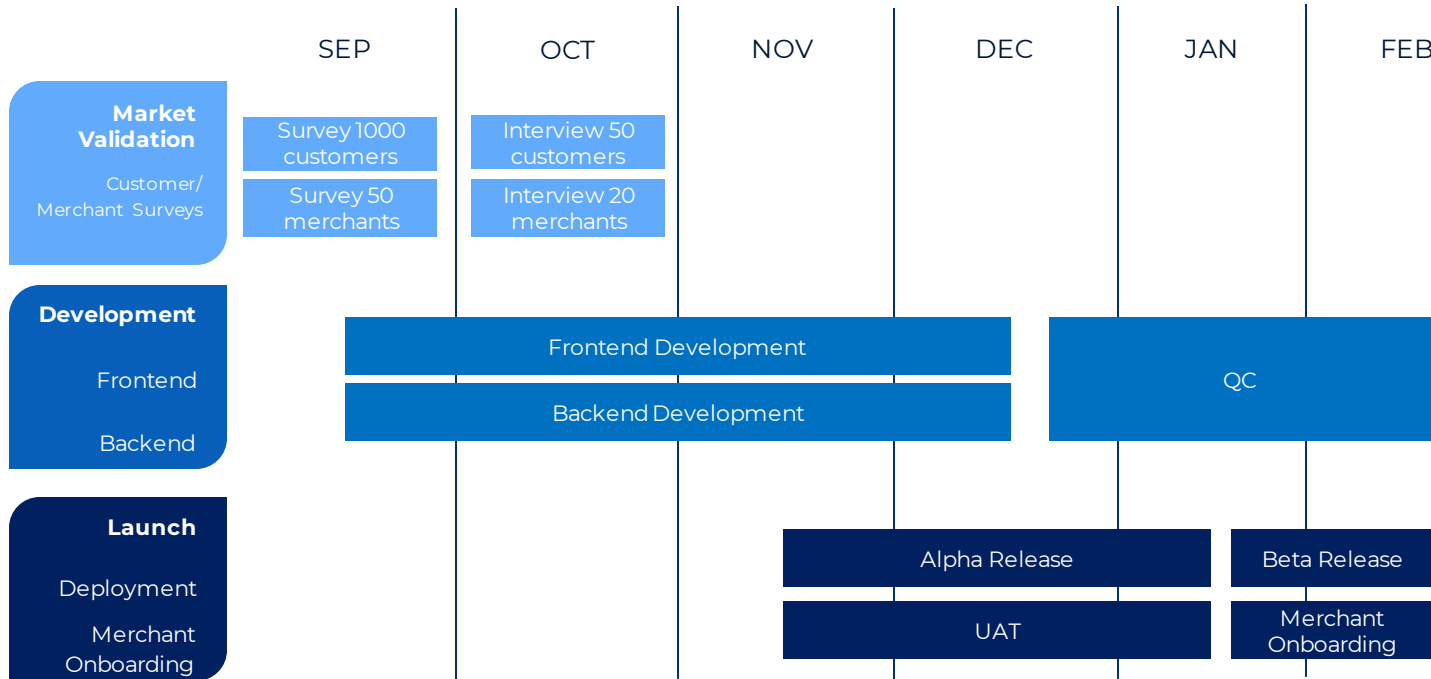
No. of new users per month



Error Rate

No. of failed transactions per month

What's Next?



Target launch: Mar 2022

Application Demo



Scan the QR to access
our application!

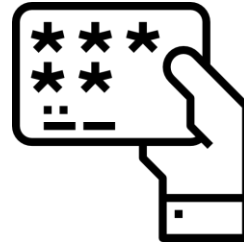
Future Features



**Gamified
Experience**



Mystery Boxes



Loyalty Points



**Marketing
Analytics**



Innovating contactless engagement



Praveen
Rajesh



Max
Chan



Chua
Cheng Ling



Yao Xinyi



Carl
Chua