



Grab and Go

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Background

Grab and Go is an application that addresses the problem of shopping with minimal interaction, which is becoming essential in the modern world. Social distancing in recent times has made this concept more relevant than ever. **Grab and Go** allows users to use their cellphone as a mobile scanner and payment device to select and pay for items in retail locations.

Objective

- Create an application for checkout that can coexist with existing in-store checkout to reduce interaction and allow increased social distancing.
- Make a solution that all retail companies can use as a service, thus allowing users to only need one application across many retailers.
- Build a safe database of user data to store profile information.
- Integrate a secure payment platform that is also user-friendly.
- Design an easy to navigate interface.

App Functionality

- Stores will have QR codes at the entrance and throughout for the user to scan so the app can link to the current retailer.
- Users have an automatically generated QR code as identification to scan into a store.
- The scanner reads barcodes on items to add them to the cart.
- Duplicate scanned items will increment in count, and items can also be removed.
- The payment is handled by Braintree, allowing for credit card/PayPal/Venmo.

Technologies

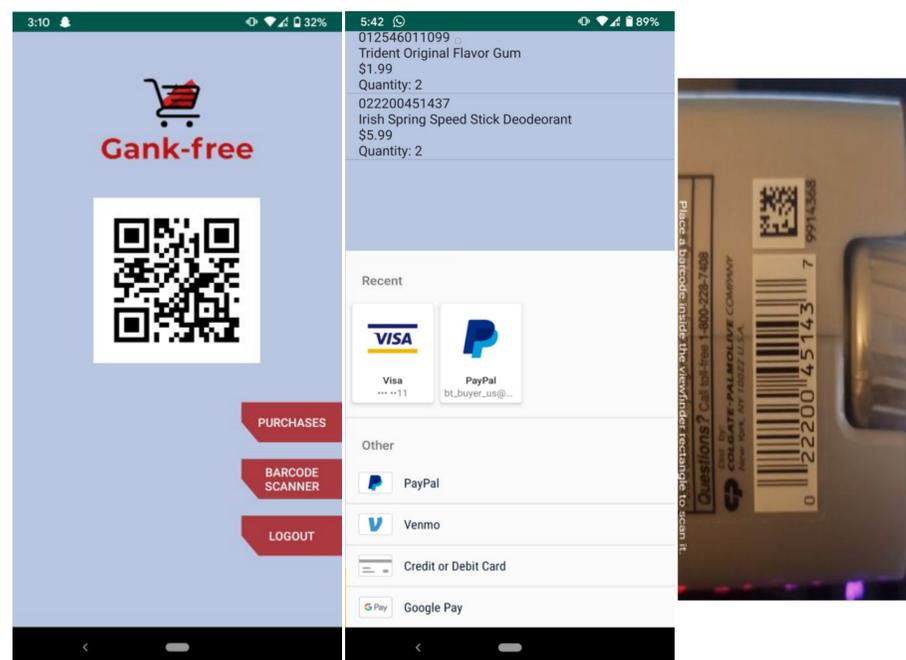
Android Studio is an IDE used to develop Android applications. Android Studio uses Java and has live app previews.

ZXing is a library used to scan in the product barcodes and generate QR codes for stores and users.

Braintree is an API used for payments in Grab and Go. It handles security using data encryption, authentication, and monitoring.

Firestore is a realtime database used for backend data storage and management

Results



Glossary

IDE: Software to assist in coding projects

QR: Quick Response code, a matrix barcode to contain data (usually websites)

API: Software intermediary allowing multiple applications to communicate

Acknowledgements

We would like to thank Professor Ridha Kamoua and Tony Olivo for their mentorship and assistance in making this project a reality.

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