

University of Winnipeg

Winnipeg Transit: Digi-Pass

Team Kreachter – Milestone 2

Caleb - Wilson - Eric - Angelic - Joshua

ACS 3916-001: Human Computer Interaction

Professor Bautista

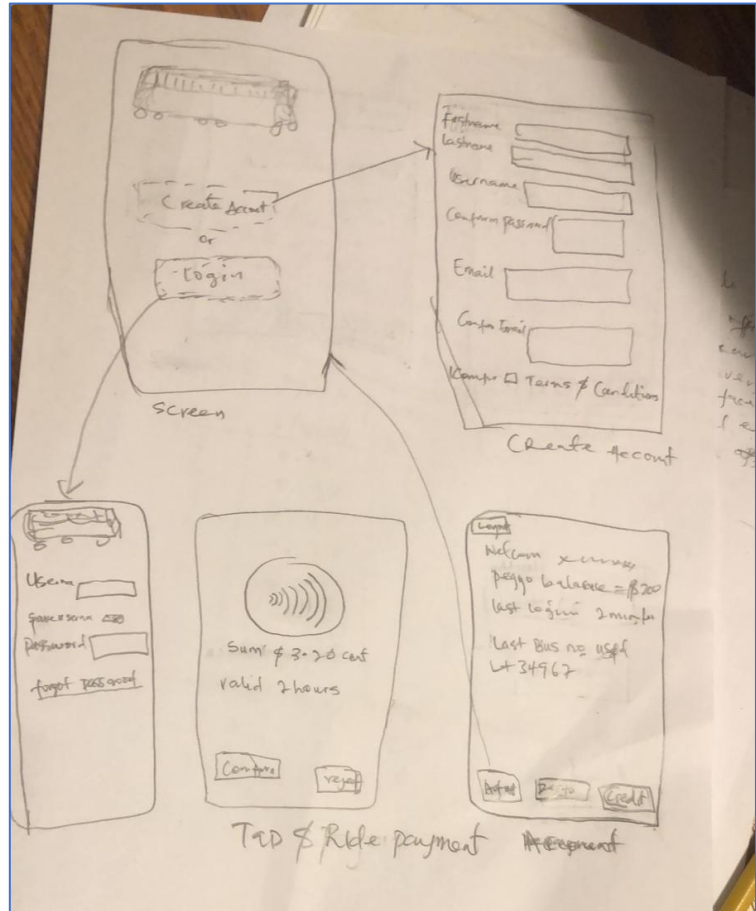
November 16, 2020

1. Initial Design

Pen & Paper Sketches

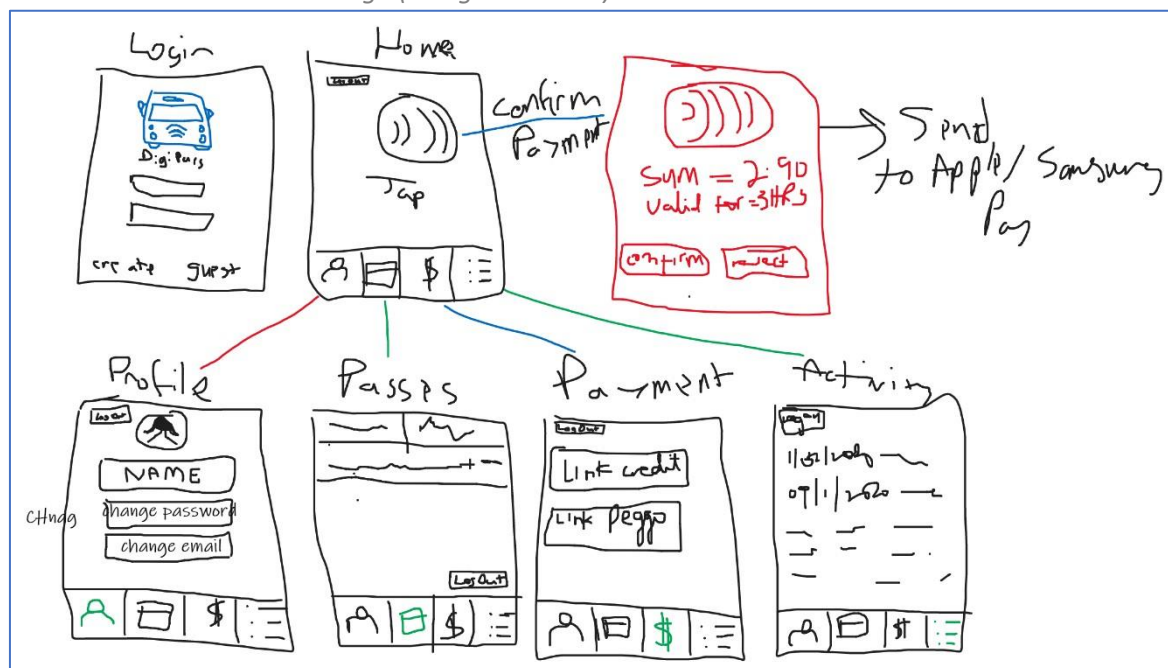
After the last milestone, our users made it clear to us that they want a quick, convenient, and simple product. We set out to do just that.

To fulfil our users desires for this interface, we decided it would be best to feature a minimalistic design. This includes: A low profile navigation ribbon on the bottom with easily identifiable logos (for navigation speed and simplicity) and a guest feature that allows users to pay for a bus pass without creating an account (for convenience). In addition, we added an ever-present log out button for security.

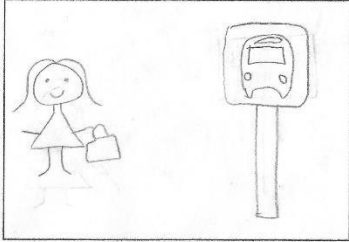
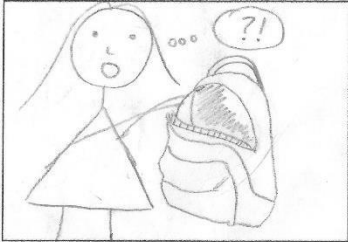
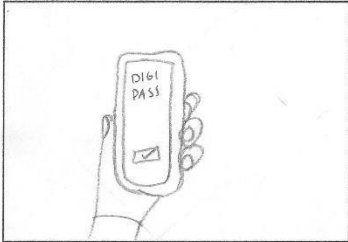
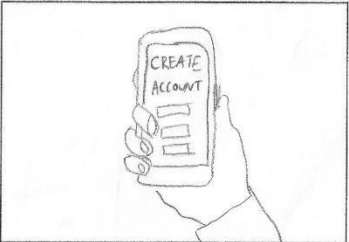
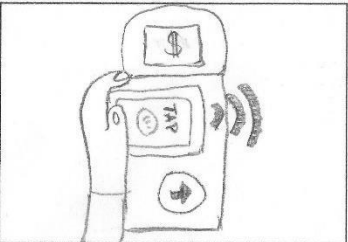
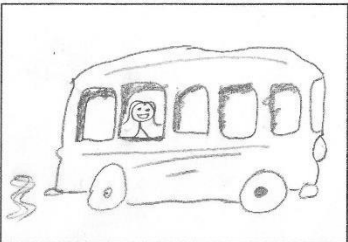


Above: Chima's Early pen and paper sketch of DigiPass

Below: Team whiteboard design (Design Direction)



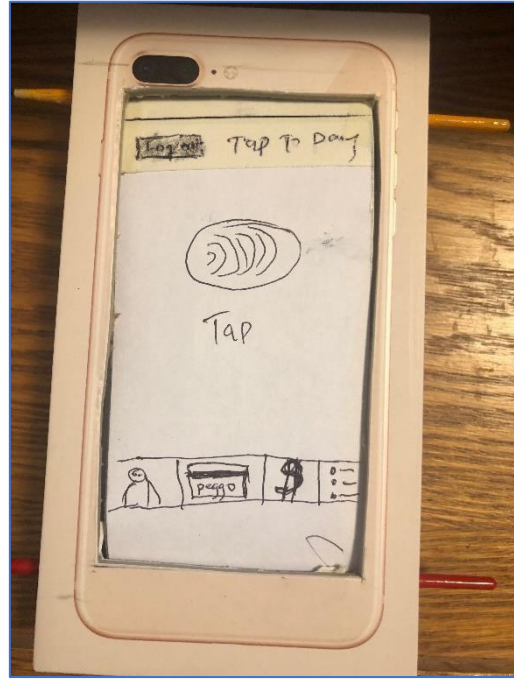
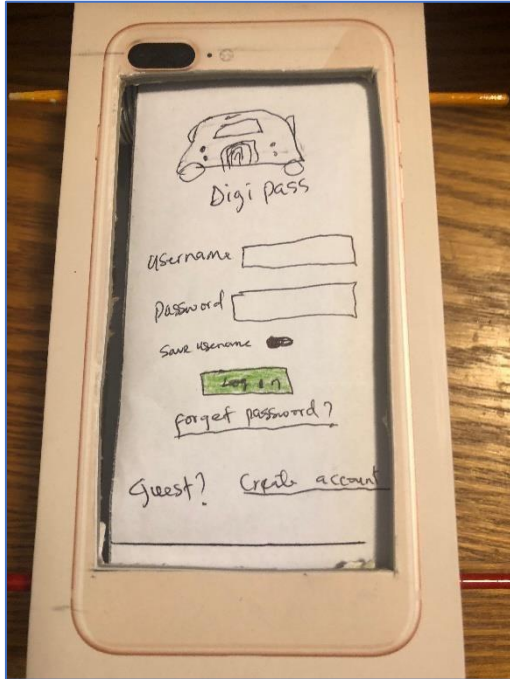
Storyboard

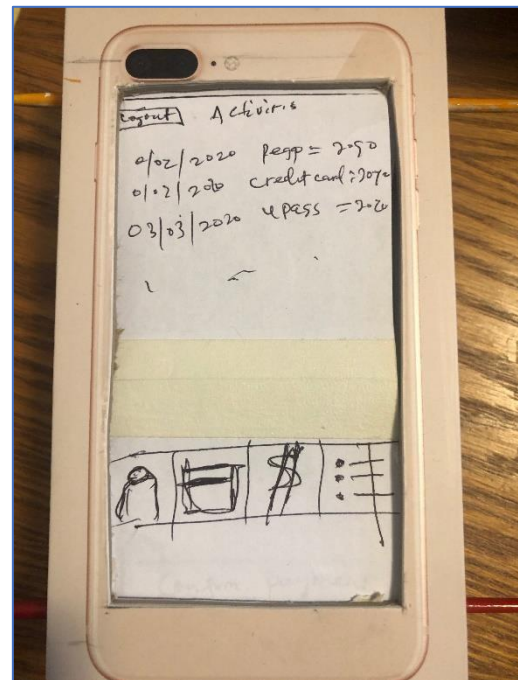
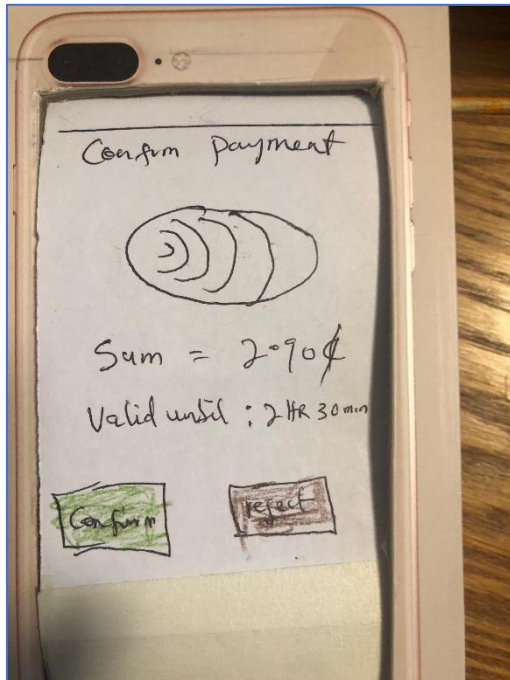
PERSONA: Danielle I. Whitmore		USER STORY/SCENARIO: Forgetting her peggo card.	
			
<u>Danielle is on her way to the bus stop to attend her afternoon university classes.</u>	<u>Danielle searches in her bag for her peggo card until she realizes she forgot it at home.</u>	<u>Danielle quickly goes into the Digi pass app.</u>	
			
<u>Danielle creates an account then inputs her credit card information.</u>	<u>The bus arrives and Danielle uses the digi pass to pay for her ticket.</u>	<u>Danielle is worry-free as she heads off to University of Winnipeg.</u>	
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Above: Anjelic's storyboard

2. Images of Paper Prototype

Some images from Chima's paper prototype, see .zip for complete set





3. Summary of Formative User Evaluation

Building & Presenting the Prototype

As you can see from the previous page, our prototype is made of an old phone box, two sticks, and strips of paper taped together. Its screens are changed by twisting the sticks, in turn scrolling the paper to a different screen. This prototype was made to be handled like a real phone so that a tester could be more immersed in the evaluation.

Due to COVID and time constraints, only the creator of this was able to test in person and the rest of us had to do so using photos of the screen. Regardless of that, the evaluation was held in the same way. We told our users a bit of context (i.e. this app will let you pay for bus fare), then asked them to complete a task from the following:

Tap & Ride payment, View Activity Log, View Passes, and View Balance

Users would complete each of the above tasks once. They were instructed to "tap" what they thought the correct course of action was, then the designer would change the screen according to their action. Confusion and comments were noted.

Summary of Experience

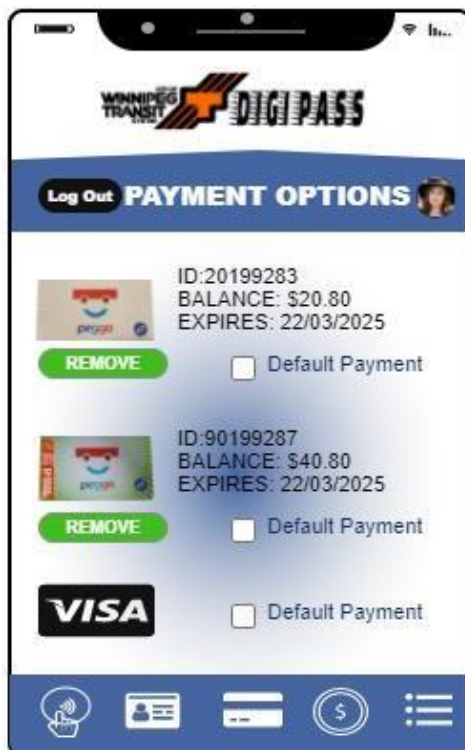
From login to logout, users had an easy time navigating the interface and finding the intended course of action for each task. We received several comments from users that would help clarify some key features of our app. Many users expressed confusion towards available balance, they were not sure if/how much balance they had, if any.

To address these comments, we will be incorporating the following changes:

- Change “TAP” to “Tap to Pay”
- Add balance on home screen
- Add balance in confirm payment screen
- Add instant feedback of updated balance after payment

This turned out to be a very positive experience for us as designers. It helped us better see from the eyes of the users and keep us on track to making a great interface.

4. Images of UXPin Prototype



5. Summary of Usability Inspection

Cognitive Walkthrough

Because none of us are UX experts and we only know one, who happens to be very busy, we decided to perform a cognitive walkthrough as our usability inspection. We chose to inspect the Tap & Ride Payment task which broke down into an action sequence of eight subtasks.

They are as follows:

1. Log In
2. Navigate to add a payment
3. Add payment method
4. Navigate to home screen
5. Tap phone on NFC reader
6. Confirm payment
7. Review receipt
8. Log out

As individuals we gave similar results throughout the walkthrough with only one issue identified. Overall, subtasks 1, 3, 4, 5, 6, 7, and 8 received perfect scores from everyone with comments pointing out positive interactions we believe users will have. However, on subtask 2 there was some contention between designers. Most of us believed users would find the action sufficiently evident and that they would notice the correct action available. One walkthrough noted that the user is not properly notified that they need to add a payment method and that the icon is unclear. This means that subtask 2 could violate question 1 and 2, which could lead to major usability issues.

In order to address this potential issue, our final iteration will have an indication if the user has no payment method and will feature a clearer payment method icon. We could simply add a plus symbol onto the current logo and make it flash to draw the user's attention to it when they have no payment method.

Other than the issue mentioned above, we identified no issues and will continue development accordingly.
