GNG1103-A00

Deliverable-G-Prototype II and Customer Feedback

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Project Team-7

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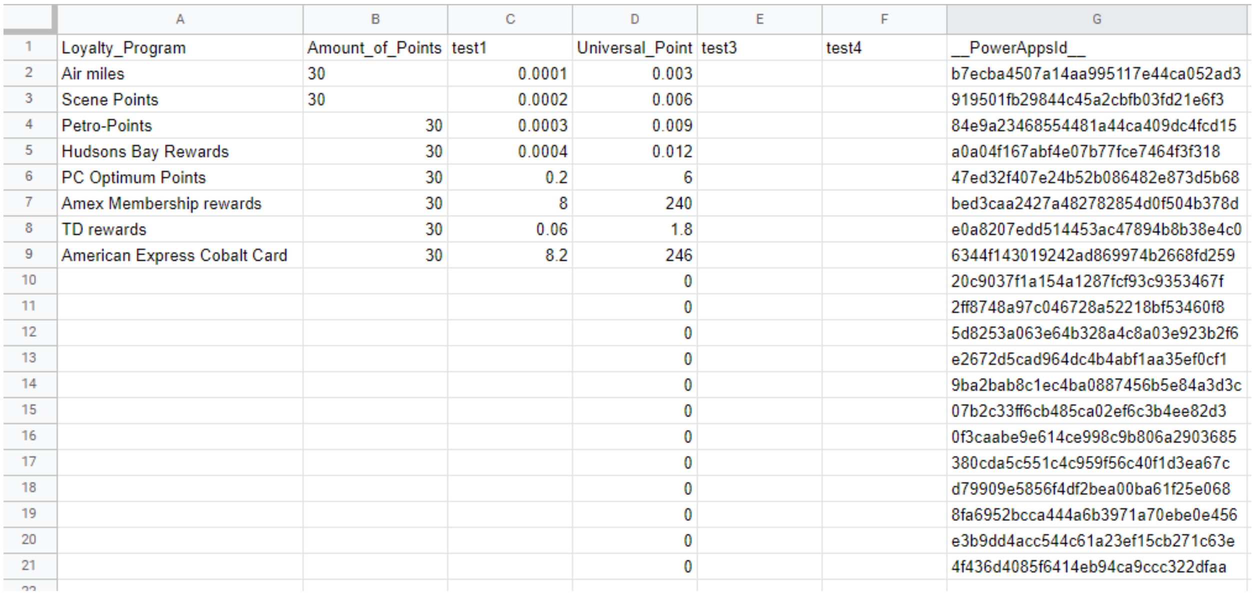
Introduction

In the previous deliverable , prototype 1 was created, developed, and tested. The prototype was also subjected to customer feedback in order to design the next prototype. In this deliverable the team will be doing things very similar to the last deliverable, however it will focus on prototype 2. Prototype 2 will encompass the feedback obtained by customers and improvements to functions and application UI in the previous prototype.This deliverable will have a few parts including; prototype 2 analysis, feedback and next steps for prototype 3.

Prototype II

The main purpose of this prototype was to complete as many of the functions as possible for the application. This prototype will include numerical and experimental prototype models as we will display a few equations to demonstrate how we will calculate conversions from various point values. The prototype will include an updated home page and transfer page. Below is a numerical model of our prototype, displaying conversions with multiple exchanges and conversion factors. The team is also experimenting with various spreadsheets.

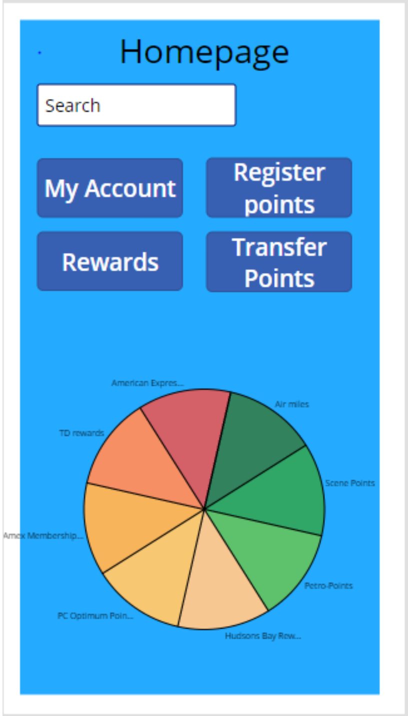


	A	B	C	D	E	F	G
1	Loyalty_Program	Amount_of_Points	test1	Universal_Point	test3	test4	__PowerAppsId__
2	Air miles	30	0.0001	0.003			b7ecba4507a14aa995117e44ca052ad3
3	Scene Points	30	0.0002	0.006			919501fb29844c45a2cbfb03fd21e6f3
4	Petro-Points	30	0.0003	0.009			84e9a23468554481a44ca409dc4fcd15
5	Hudsons Bay Rewards	30	0.0004	0.012			a0a04f167abf4e07b77fce7464f3f318
6	PC Optimum Points	30	0.2	6			47ed32f407e24b52b086482e873d5b68
7	Amex Membership rewards	30	8	240			bed3caa2427a482782854d0f504b378d
8	TD rewards	30	0.06	1.8			e0a8207edd514453ac47894b8b38e4c0
9	American Express Cobalt Card	30	8.2	246			6344f143019242ad869974b2668fd259
10				0			20c9037f1a154a1287fcf93c9353467f
11				0			2ff8748a97c046728a52218bf53460f8
12				0			5d8253a063e64b328a4c8a03e923b2f6
13				0			e2672d5cad964dc4b4abf1aa35ef0cf1
14				0			9ba2bab8c1ec4ba0887456b5e84a3d3c
15				0			07b2c33ff6cb485ca02ef6c3b4ee82d3
16				0			0f3caabe9e614ce998c9b806a2903685
17				0			380cda5c551c4c959f56c40f1d3ea67c
18				0			d79909e5856f4df2bea00ba61f25e068
19				0			8fa6952bcca444a6b3971a70ebe0e456
20				0			e3b9dd4acc544c61a23ef15cb271c63e
21				0			4f436d4085f6414eb94ca9ccc322dfaa

Homepage

The application home screen will be the screen that the customer will see after they login to their account.It will feature buttons that will access other screens such as the transfer page and the rewards page. The figure will show the home screen and the different buttons that can currently be used to access the other features. The developed buttons and its associated functions are concurrently being constructed through the use of power apps. The transfer button which will allow the user to transfer different points, rewards button which will display the users possible rewards, the register points button which will allow the user to register a rewards points to loyalty plus, and the my account button which will allow the user to see all account details.

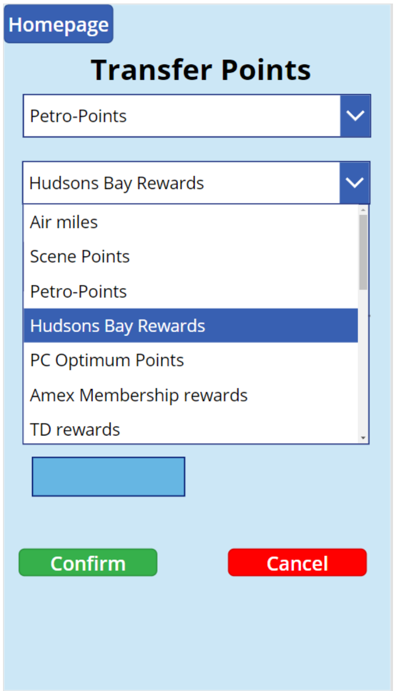
In regards to what is left to be done for the home screen, the images for the button need to be added to have more clarification for the user. Additionally, almost all buttons lead to another screen which is very good, however those screens are not fully developed yet and will be done by prototype 3.The only buttons that currently need to be developed on the homepage are the settings and help buttons, which will be created in the next prototype.

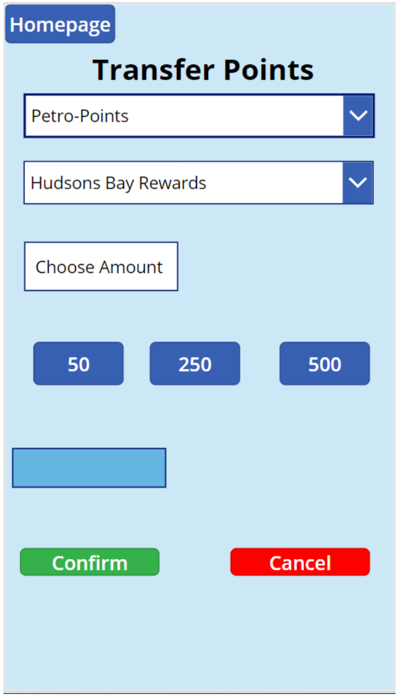


Transfer page

The transfer window will appear once the user presses on the "Transfer Points" button. This will bring them to a new screen which will allow the user to transfer any current points they have to any valid rewards point system. We are currently experimenting with ways of adding and accessing data from spreadsheets in the transfer page. Since the last prototype, the visual component has not changed but the behind the scene work has changed. We are currently working on having every type of point converted into a "universal point" which will be multiplied by a conversion factor to find the new point value when transferred.

In regards to what is needed to be developed for the transfer points page is to be able to change a spreadsheet with the data of the points. Additionally, the feature that sends and receives points from other accounts needs to be created. The visual part of the transfer points page is mostly done.





Testing

The team tested the various functions by using the actual pages and testing them as a user would. The rigorous test entails testing the homepage buttons and the exchange points function. It was tested multiple times, by various users that the home page buttons work correctly. First, we tested the my account button, it correctly directed us to the my account page. Additionally, the register points page and transfers points page work; the user was able to access them with ease.

The tests for the transfer points page were tested by exchanging one point value for another. This was tested a plethora of times with various currencies and exchange/conversion factors. This was tested in the app and in the spreadsheet, the numerical model of the prototype. The application was working in the spreadsheet, the various currencies inputted were correctly being converted to the proper point value desired. However, the function fell short when actually displaying the conversion in the application in power apps. When values were inputted the value was unable to be converted to the proper value. Whereas when inputted into the spreadsheet it is converted properly. Thus, the team is looking into solving this issue immediately.

Next Steps for Prototype III

Name	Description	Priority
Transfer Points Page	The math behind the ability to transfer points	⭐⭐⭐⭐⭐
Reward Page	A list of possible rewards with each point type	⭐⭐⭐⭐
Register points page	Ability to choose which reward programs to use	⭐⭐⭐
Settings and account settings	These pages will have no effect on the use of the application and will just be added for their looks	⭐

Test Plan

Test ID	***Test Objective*** ***(Why)***	***Description of Prototype used and of Basic Test Method*** ***(What)***	***Description of Results to be Recorded and how these results will be used*** ***(How)***	***Estimated Test duration and planned start date*** ***(When)***	***Stopping Criteria***
1	Flexibility and efficiency	People are able to open the page very quickly. The time of users find what they need is also an important factor The first user(s): professional analysts and regular bank clients	Timed a whole app using each item and observed if the interface was responsive. Whether users experience lag and program crashes during use The data we get can be used to produce feedback on normal use.	Check after finished Around one day	The webpage is smooth and clear, which can attract users to learn more about ***Loyalty +***
2	New users guide	This allows consumers to quickly understand the functions of the app and master the main operation process of the loyalty program The first user(s):	Observe whether the instruction process enables beginners to learn the basic operations quickly The data we get can be used to produce feedback on normal use.	Check after finished Around two days	Any novice user can get what ***Loyalty +*** does and its benefits.

		Anyone who has a bank business can be the first user.			
3	Freedom in controlling	Depending on the popularity of each item, the user can change the operation or the system can show the relevant items to the user through a database. Also, customers can find the item wanted in the shortest time The first user(s): Anyone who has a bank business can be the first user.	Whether the program has setting items that users are accustomed to using, and whether the items recommended by the interface are popular with the public The data we get can be used to produce feedback on normal use.	Check it during the whole process Around one day	Finishing the transfer points, rewards, or other items with a shorter time than other similar apps.
4	Aesthetic and minimalist design	Beautify the usage page to make it feel premium yet simple and comfortable. Also, adding ads or high-profit strategies to attract people to use this app is beneficial. The first user(s): professional art analysts and regular bank clients	The overall layout of the interface and whether the content meets people's normal aesthetic standards The data we get can be used to produce feedback on normal use.	Check it during the whole process	Simple enough, but also display the items most needed by users, which can be summarized from the feedback.

5	Information completeness	Make sure the information that is uploaded in the app is covered with all kinds of FAQs. Programming code This test needs program designers to check items the program should have are fully included.	Percentage of content in the App versus actual content The data we get can be used to produce feedback on normal use.	Check after finished	There are no complaints like "the information in the app is hard or unable to find" in the feedback.
6	Error prevention	This test is used to avoid an error in the app. This system should also send an email of information that is needed to prevent viruses from invading. This test needs program designers to check programming code.	correction errors generated in twenty arbitrary uses The data we get can be used to produce feedback on normal use.	Check it during the whole process	The percentage of errors generated by the statistical system. When it is less than 0.01%, it is qualified.
7	System bug identification, diagnosis, and recovery	Use a program that can find an error in the whole system. When a problem occurs, there should be a reminder system for the users to recover the app.	Percentage of program errors generated in twenty arbitrary uses The data we get can be used to produce feedback on normal use.	Check it during the whole process	The time required for the test team to fix a bug. Make it less than 1 hour.

		This test needs program designers to check programming code.			
8	Information accuracy	Make sure if the information provided and all kinds of prototype data have a high degree of accuracy with the actual prototype. The professional inspector needs to compare the app with the daily real-time information without errors.	Evaluate the percentage of content in the App versus actual content The data we get can be used to produce feedback on normal use.	Check it during the whole process	Make every service and preferential policy consistent with the news and social media messages.
9	Client feedback	Distribute Loyalty Plus products to first users for free, let these customers use, generate and collect feedback The first user(s): Anyone who has a bank business can be the first user.	According to the experience feelings, satisfaction level and user comments, Record through questionnaire We can collect the results of the questionnaire and make a bar graph	Check after finished Around two days	When collecting feedback, if over 90 percent of clients said that they are satisfied with all of those items above, this can be stopped.

Feedback

- Feedback was collected periodically during development over a controlled group of young, old, men and women.
- The overall consensus was that all parties wanted an app that "simulated trading apps" where a chart with statistics and news would be available with the loyalty point one is interacting with.
- An important aspect found when garnering feedback was a "pretty UI", one that made the usage of the application "fun" and "easy to use".
- Another aspect was that users did not want to leave the app to research a points application, but rather have the resources available to them in real time
    - An example provided by the younger sample group was that of their D2L websites, where announcements, materials, outlines, were all found within one url.
- TUTORIALS
    - Many younger people are not yet enrolled in loyalty programs, many compared the idea to that of the Stock market (however, if anything, the loyalty + app resembles that of a cryptocurrency exchange or HFX app)
    - As taught in GNG1103, "explain it to me like I'm 5" is a good model to follow, be sure to have tiers of tutorials (one person suggested giving out rewards as one completes the training module
- Cross app-interaction.
    - Many also liked the idea of being able to link the application with a specific loyalty programs app (such as air miles or PC Optimum) to see their personal wallets in real time
- Monetization
    - While Team Se7en has yet to determine how to monetize the app, there can be 3 solutions.
        - 1. Advertisements
        - 2. Transaction Fees
        - 3. Data collection
            - Many disliked the idea of Data collection, but would allow it if the application was really worth it. Transaction fees were recognized to be a norm, so many were ok with it. And while the animosity towards advertisements is still prevalent, many would be ok with them, if they had something to do with app (I.e would advertise new loyalty programs, their benefits, rewards etc.)
- The majority enjoyed the idea of being able to send one of their colleagues some loyalty points, whether as gifts, payments or exchanges.

- Lastly, one business owner was spoken too about whether or not they'd create their own loyalty program if an app like this existed, they said yes, as long as they saw the gains in business they'd receive, so maybe a separate section of the app can be made for smaller business owners looking to manage their tokens.

Conclusion

The second phase of prototyping was quite successful as many of our functions that were added worked. Additionally, the user feedback was overall received quite well, with some improvements to be made. For prototype III, the team needs to finish on the rewards system, the transfer system and my account page. The team is aware of issues that were found during the testing phase and is immediately attempting to resolve them. Now the team is moving forward with prototype III and is hoping to address all issues found in prototype II and add all missing features.