GNG 1103

Design Project User and Product Manual

The 6ix - Crypto Currency

Submitted by:

GROUP #6

Jieying Yang, 300103978

Zeyad Abu-EI-Quran, 300167089

KC Ezirim, 300194524

Sean Vedachellam, 300231391

8 December 2021

University of Ottawa

Table of Contents

Introduction **1**

Overview **1**

Getting started **2**

- Set-up Considerations 3
- User Access Considerations 3
- Accessing the System 3
- System Organization & Navigation 3
- Exiting the System 3

Using the System **4**

- Home Page 4
- User Page 4
  - Account page 5
  - Shopping cart page 5
  - Points mall page 5
- Merchant Page 6
  - Account page 6

Troubleshooting & Support **7**

- Error Messages or Behaviors 7
- Maintenance 7
- Support 7

Product Documentation **7**

- <Subsystem 1 of prototype> 10
  - BOM (Bill of Materials) 10
  - Equipment list 10
  - Instructions 10
- Testing & Validation 12

Conclusions and Recommendations for Future Work **13**

APPENDIX I: Design Files **14**

List of Acronyms and Glossary

Table 1. Acronyms

Acronym	Definition
UI	User Interface

Table 2. Glossary

Term	Acronym	Definition
Hypertext Markup Language	HTML code	Type of code used to structure web page content

1 Introduction

This User and Product Manual (UPM) provides the information necessary for merchants and users to effectively use the crypto currency and website for each webpage and for prototype documentation.

The product is designed to help banks increase customer loyalty and add smaller partners. The product includes a website and an application. Both applications and websites are complex and have many parts. The process and thought process behind the design is also complex and detailed. Creating manuals and parts lists that describe the design will help you understand how to use the product and how to copy or modify it for further improvement.

The purpose of the user manual is to list all the components of the product, including applications and websites. These components include the design, the design process, the thought process behind the design, as well as parts of the simple application and site itself. In addition to the list of components, there are descriptions of each part of the application and site. These include instructions on how to use the site, how to copy the design, how to build the design, the reasons behind the design, and the design process. Other details, such as test plans, lists of materials, lists of equipment, troubleshooting, support, and most importantly instructions on how to use the application and website, are also part of the user manual. In addition, the user manual has many graphics from applications and websites to help users navigate, use, and understand the product.

2 Overview

Today everyone uses banks and collects points, but we don't want to use points the same way anymore, we don't want points specific to just flights or the next time you go to Walmart or whatever it is…. So, a customer needs more options as to how they use their loyalty points as well as safety, a frictionless experience… and so on. We need to develop a loyalty program that involves a secure and safe system that can democratize points and allow consumers to be more flexible with how they use their points.

So, **what** is our solution, the solution that we chose is to replace points with using cryptocurrency and just hear me out, ik this is a really polarizing idea, but there's a reason why some cryptocurrencies such as bitcoin have a market cap of one trillion dollars, and Ethereum at 600 billion dollars. And the list goes on. Crypto works because crypto is essentially digital currency that can be used to buy pretty much anything (of course in our case, I mean you can buy anything from the businesses that are working with banks).

So what we have done is we have created our own crypto currency on the Ethereum block chain, we have created a token.

Why else did we choose crypto? A Lot of people would like to get into it but don't know how or where to start. Well in this solution, in this program as a user you can own crypto without having to worry about where it's from and how to manage it and all that… Because, all of this will be done for you through zafin.

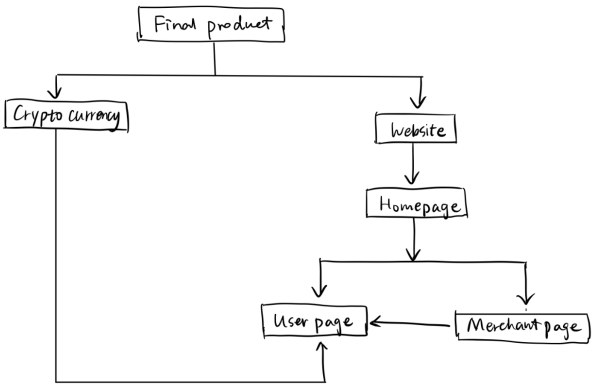
Another reason why crypto is the best solution is because it's reliable! Programmable, it's secure, anonymous, unanimous, time stamped, immutable, and most importantly: DISTRIBUTED! Which means all network participants have a copy of the ledger for complete transparency… So, you always know where the "points" or should I say the crypto has gone.

We have also created a user interface from which users can use features that will help deliver a frictionless experience. These features include:

- Can freely control the points in our account. You can use it in the mall, redeem small commodities, send it to friends, etc.

- Can see all account-related information, including email address, shipping address, phone number, and consumption records.

- Can view all historical bills. For example, enter the month you want to find, and all purchase records and historical bills will be displayed on the web page。

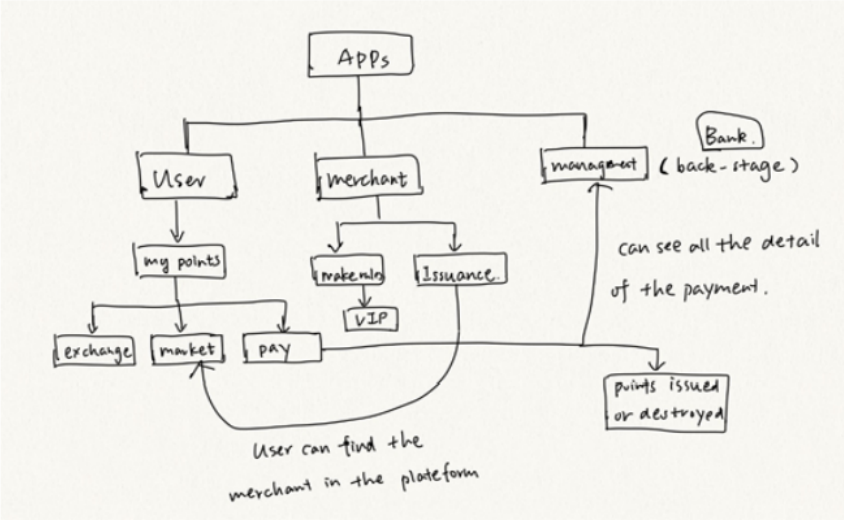


From this diagram, we can see the structure of our product. Notice that the Crypto currency will be created by the bank and used for the users. The merchant page gives all small entrepreneurs an opportunity to sign up to be a merchant, and can post their own products which can be exchanged by the points.

3 Getting started

Here we discuss the stages, which are essentially a walkthrough of the system, from the home page to either the user page, the merchant page, or both, and then depart.

3.1 Set-up Considerations



3.2 User Access Considerations

When the user clicks on the URL to enter the homepage, two buttons will appear to identify whether you are a user or a business. The user needs a user account to log in to the user interface. For merchants, only registered merchant accounts can log in. Since we have published the webpage on the Internet, after obtaining the URL, click to go to the homepage of our webpage.

3.3 Accessing the System

Once the URL has been copied onto their chorm, the user will simply be able to click on the URL to launch it. Once launched, the user will be brought to the website homepage from which they can reach all the available features.

3.4 System Organization & Navigation

- Crypto Currency
- Homepage
- User Page
- Merchant Page

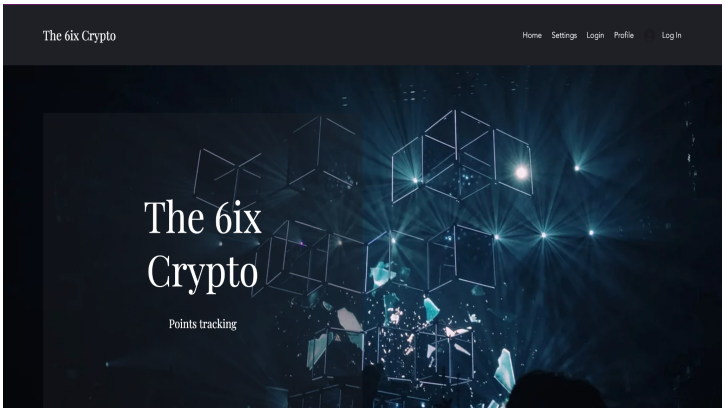
3.5 Exiting the System

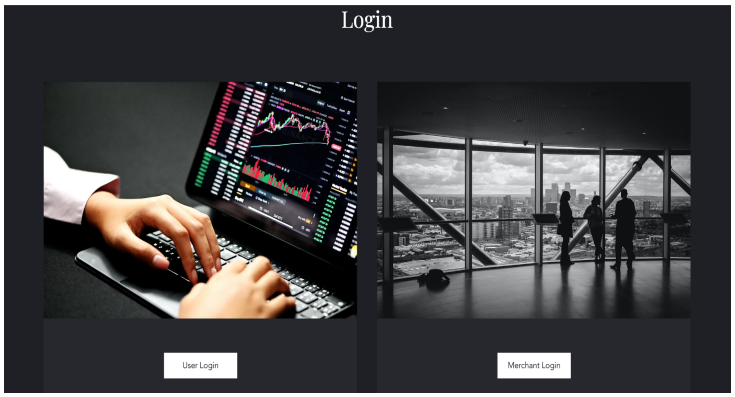
Just like closing other webpages, you can close the webpage by clicking the "x" on the tab.

4 Using the System

The following subsections provide detailed, step-by-step instructions on how to use the various functions or features of the <System Name and/or Acronym>.

4.1 Home Page



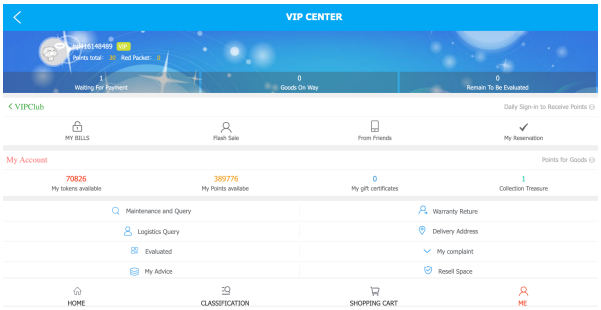


The home page consists of buttons that would take the client to the userpage or to a merchant page. The home page is more of a welcoming to all people who either want to be a merchant, a user or both.

4.2 User Page

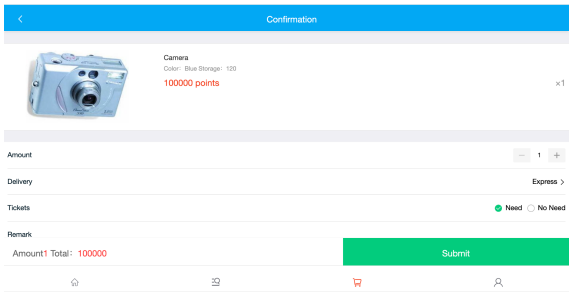
The user page is for the people to purchase items from the merchant (in the merchant page) to gain points to later use to pay for/redeem other items, also from the merchant.

4.2.1 Account page



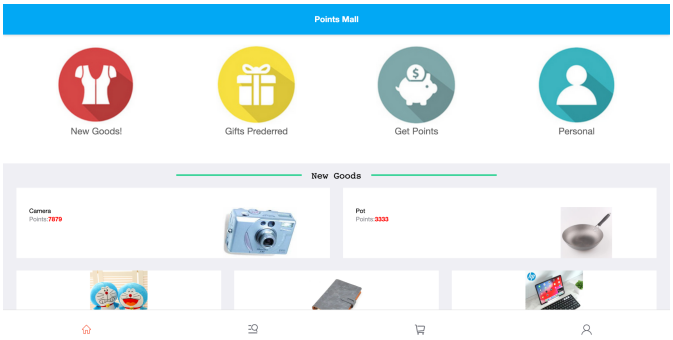
the account page for the user would consist of how many points the user has. It has a VIP club side that will show sales and tokens transferred from other peoples. helps with the delivery notification to know where the package is or what company is in charge of the delivery.

4.2.2 Shopping cart page



The Shopping cart page helps organize the product in your cart, how much you will be required to pay and how many tokens you would gain.

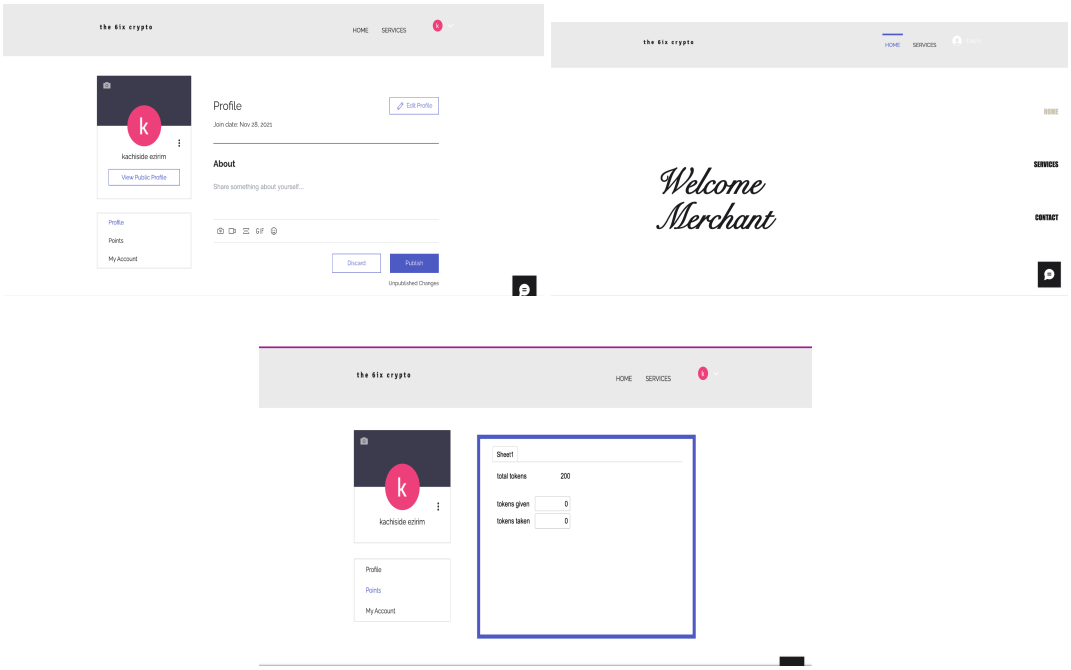
4.2.3 Points mall page



The point mall is where the user can choose the product, get more info of the products and how many points would be rewarded if the user purchased the product.

4.3 Merchant Page

4.3.1 Account page



The merchant's account page is divided into three sections: the profile, My account, and points. The profile is where the merchant may upload items to a social network, which will be accessible on the user page. My account allows businesses to update their profile with information or sales that the user can view. The last page displays the points, where the merchant may alter the number of tokens/points available for incentives.

5 Troubleshooting & Support

due to limited time of testing and not enough functionality to have error messages, there would not be many predicted error messages to warn the user.

5.1 Error Messages or Behaviors

An error message or behaviour that a user may encounter is being unable to login, which may be resolved by contacting the company. Another problem behaviour for merchants is the inability to show the goods, which may be resolved by contacting the company.

5.2 Maintenance

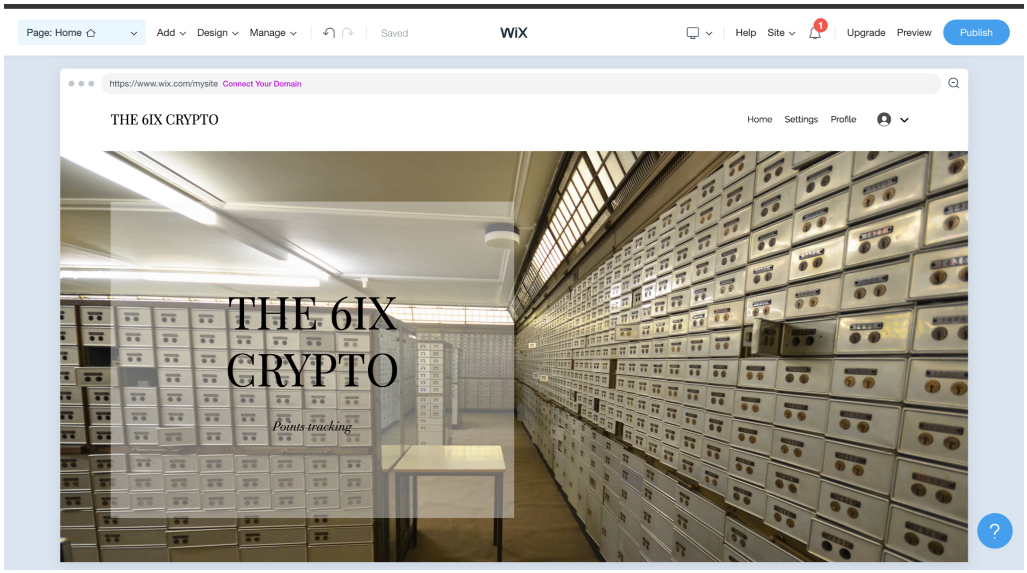
The only maintenance required for this application is to ensure that the leaderboard database does not get too loaded, and to continually update the database to enhance the accuracy of the application.

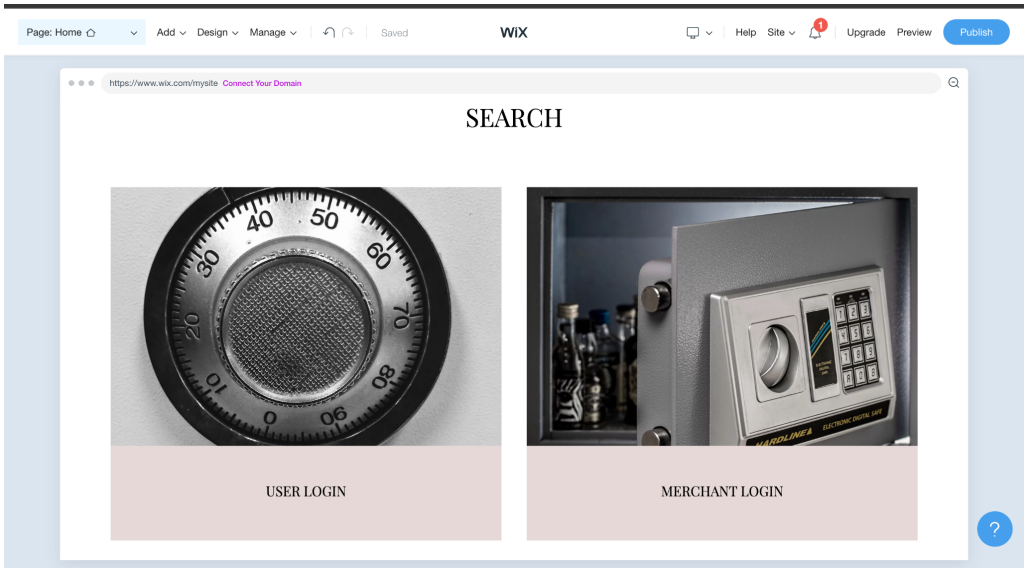
5.3 Support

if ever a situation ever occurs, for support, the user should contact the developer. Right now the user can contact the company through an email and in future cases maybe a customer service email.

6 Product Documentation

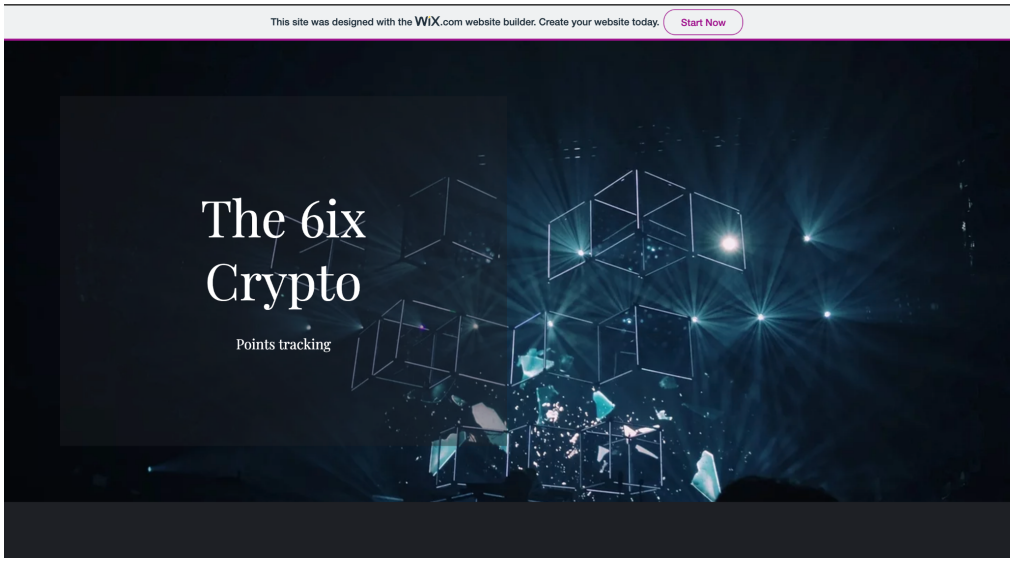
The final prototype was built by using the subsystems. There needed to be a main home page that everyone can log into, and a section for the users and merchants to access their respective part of the website. The first prototype of the home page was made using an online website creator called wix.

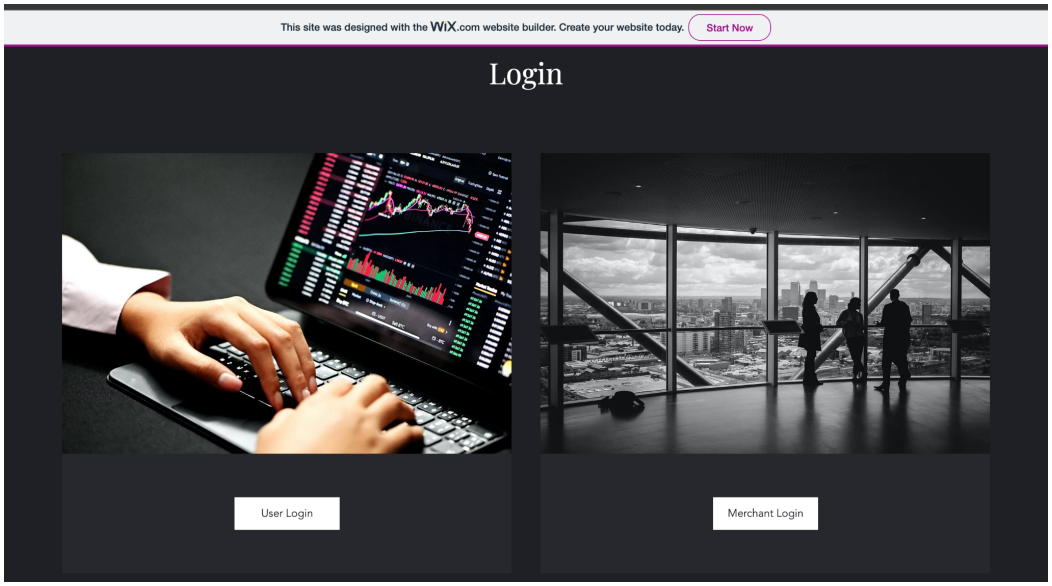




The issues with the first prototype was that there were no real links to the user or merchant page. Additionally the home page itself was visually unappealing.

Prototype 2 was very long as it took completely remodeling the website and also adding links to the user and merchant pages.





We chose a darker theme as it was cleaner and made the website look more aesthetically appealing compared to the version with the locks and safes. We also added the links to the user and merchant page. We were extremely happy with this prototype as we thought the website looked good and served its function perfectly.

6.1 <Subsystem 1 of prototype>

6.1.1 BOM (Bill of Materials)

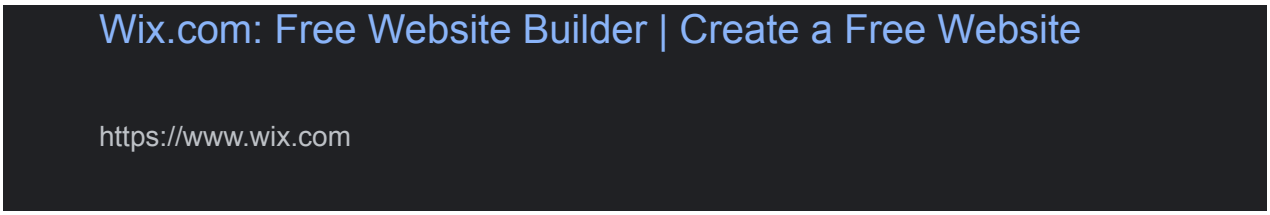
Platform	Price ($)
https://sveda078.wixsite.com/website	0
HTML	0

6.1.2 Equipment list

There were not many pieces of equipment needed to build this subsystem. Every aspect of the project was done online and therefore only required a computer and internet connection.

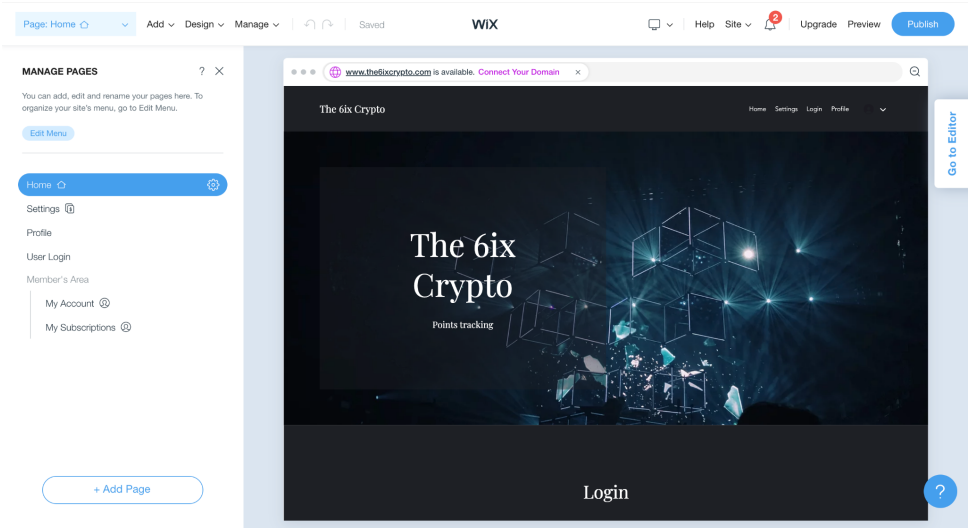
6.1.3 Instructions

First you need to go to

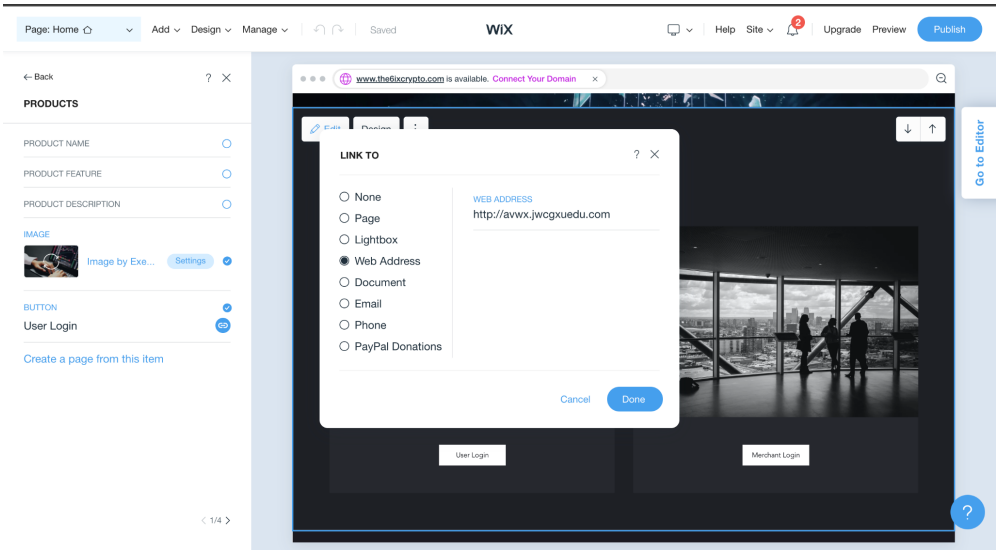


and make an account.

From there you pick a template and fill it out however you like.



There are many tutorials you can watch that will help you customize your website the way you want it. After the homepage is done, you have to put in links to the user and merchant pages.



You then create a button and insert the link to the respective pages and the website is complete.

6.2 Testing & Validation

By allowing users to use each prototype and final design to test the product and provide feedback at the same time. Prototype 2 was also shown to the client to receive feedback on improvements that should be implemented before the final design presentation. The feedback received was:

- More concise UI
- More merchants use tokens
- Add search bar
- Encryption currency and user interface link
- Rewards system

This feedback is then used to further develop the prototype and final design. Once the final design was completed, it was tested in another group of users and the previous feedback was implemented.

7 Conclusions and Recommendations for Future Work

Summing up our loyalty rewards program, we believe our cryptocurrency app is a good concept that promotes security and economics. While working on this project, we learned many lessons while developing our web pages. We first improved our programming skills. Creating a web page requires a lot of programming. For our project, we had to learn more about programming. The second is effective communication. We discuss the portion assigned to each team member for each deliverable. We communicate with each other to ensure that all deliverables are as expected. We noticed that good and constant communication with each other improved our team dynamics and workflow. Then there is the importance of project planning. We're constantly updating Wrike to get every deliverable done. For each deliverable, there are subtasks that need to be completed. Everyone was assigned sub-tasks. Wrike allows us to stay organized and plan ahead. Because we followed the Wrike task planning procedure, our team was able to complete all deliverables on time and by the deadlines that were set.

For our future work, we hope to improve our web page so that it can link the cryptocurrency section with the user page. And increase the manager's system, which can update all the transactions of all merchants and users in real time. It is also necessary to set up firewalls for each subsystem to ensure the safety of all users.

APPENDICES

8 APPENDIX I: Design Files

Table 3. Referenced Documents

Document Name	Document Location and/or URL	Issuance Date
Project Deliverable A: Team Contract and Project Management	Team_Contract_GNG1103_Long_V2 (002) (amazonaws.com)	23 Septembre 2021
Project Deliverable B: Need Identification and Problem Statement	project 6 - B (amazonaws.com)	3 October 2021
Project Deliverable C: Design Criteria and Target Specifications	Project 6 - Deliverable C (amazonaws.com)	7 October 2021
Project Deliverable D: Conceptual Design	Project Deliverable D (amazonaws.com)	18 October 2021
Project Deliverable E: Project Schedule and Cost	Project Deliverable E (amazonaws.com)	24 October 2021
Project Deliverable F: Prototype I and Customer Feedback	Deliverable F - Prototype I (amazonaws.com)	4 November 2021
Project Deliverable G: Prototype II and Customer Feedback	Project Deliverable G (amazonaws.com)	11 November 2021
Project Deliverable H: Prototype III and Customer Feedback	Deliverable H (amazonaws.com)	25 November 2021
Project Deliverable I: Design Showcase Presentation	A6-Group6 Cryptocurrency | MakerRepo (makerepo.com)	1 December 2021
Project Deliverable J: Final Presentation	A6-Group6 Cryptocurrency | MakerRepo (makerepo.com)	21 November 2021

BIBLIOGRAPHY

ConsenSys. “Tokens/Contracts/EIP20 at Master · Consensys/Tokens.” *GitHub*, https://github.com/ConsenSys/Tokens/tree/master/contracts/eip20.

“Ethereum Ide.” *Remix*, https://remix.ethereum.org/#optimize=false&runs=200&evmVersion=null&version=soljson-v0.4.26+commit.4563c3fc.js.

“Free Website Builder: Create a Free Website.” *Wix*, https://www.wix.com/.

Giudici, Giancarlo, et al. “Cryptocurrencies: Market Analysis and Perspectives - Journal of Industrial and Business Economics.” *SpringerLink*, Springer International Publishing, 17 Sept. 2019, https://link.springer.com/article/10.1007/s40812-019-00138-6.

Nate NeadNate Nead is a licensed investment banker and Principal at Deal Capital Partners. “Token Velocity - Why It Matters for Initial Coin Offerings (ICOS).” *InvestmentBank.com*, 17 Feb. 2018, https://investmentbank.com/token-velocity/.