

xPortal Business Requirements

1. Introduction

This document outlines the business requirements for the xPortal crypto app, a mobile application designed for users to manage their crypto assets. The app will prioritize non-custodial control, allowing users to retain complete ownership of their private keys and digital assets.

2. Business requirements for the xportal crypto app: Product module - Details requirement

- Support for buying, selling, staking, and swapping cryptocurrencies: The app should allow users to easily buy, sell, stake, and swap cryptocurrencies.
- Crypto debit card integration: The app should integrate with xPortal debit cards so that users can spend their cryptocurrencies anywhere that debit cards are accepted.
- Security: The app should be secure and use industry-standard security practices to protect user funds.
- User-friendly interface: The app should have a user-friendly interface that is easy for users of all experience levels to navigate.
- Support for a wide variety of cryptocurrencies;
- Real-time market data;
- Secure login and two-factor authentication;
- Price alerts;
- The ability to track user portfolio performance;
- Educational resources to help users learn more about cryptocurrency;

The development team may need to gather additional requirements from stakeholders before beginning development.

3. Functional Requirements

Wallet Management:

- Secure storage of private keys for various cryptocurrencies.
- Ability to import existing wallets and create new ones.
- Sending and receiving cryptocurrency transactions.

Exchange Integration:

- Connect to multiple decentralized exchanges (DEXs) and centralized exchanges (CEXs) through xExchange or a similar platform.
- Facilitate seamless swapping between different cryptocurrencies across various blockchains.

Security:

- Implement robust security measures to protect user assets, including multi-factor authentication and secure key storage.
- Educate users on best practices for crypto security.

User Interface (UI) and User Experience (UX):

- Provide a clean, intuitive, and user-friendly interface for both experienced and new crypto users.
- Offer clear navigation and easy access to core functionalities.

Minimum Hardware Requirements:

- Processor - Intel x86 Architecture 3GHz processor or equivalent
- RAM - 2 GB RAM
- Hard Disk - 40GB

Software Requirements Operating System - Windows XP, Windows 7, Windows Server 2003, Windows Server 2008, Linux distributions such as Ubuntu, Fedora, Redhat.

- Apache Version - Apache
- MySQL Version - 5.1.36
- PHP Version - 5.3.5, 5.2.10-2
- Ubuntu6.4
- Browser - Internet Explorer 8, Firefox, Google Chrome

4. Signup/Login

- Users should be able to sign up for a new account using their email address and password.
- Users should be able to log in to their existing account using their email address and password.

5. Wallet

- Users should be able to see their total balance (crypto and cash) at the top of the screen.
- Users should be able to see a list of their crypto holdings, including the amount of each cryptocurrency they own and the current value in fiat currency.
- Users should be able to send and receive cryptocurrency. The sending functionality should include the ability to specify the recipient's address, the amount of cryptocurrency to send, and a fee. The receiving functionality should include a QR code that the sender can scan to easily populate the recipient's address field.
- Users should be able to buy cryptocurrency using fiat currency. The buying functionality should include the ability to specify the amount of cryptocurrency to buy and a payment method.

6. Chat with Friends

- **Functional Requirements:**
 - Users should be able to create a friend list by adding other users' usernames or public wallet addresses.
 - The app should facilitate one-on-one and potentially group chats between friends.
 - Chats should support text messages, with the possibility of future expansion to include emojis, images, and voice messages (to be defined in a separate requirement document).
 - Chats should be encrypted to ensure user privacy.
 - Users should have the option to mute notifications, block users, and report inappropriate behavior.
 - Chat functionality should be performant and operate smoothly even with a large number of messages or users online.
 - The chat interface should be user-friendly and intuitive, allowing for easy navigation and message composition.
 - Chat history should be stored securely and efficiently, allowing users to access past conversations.

7. Swap

- **Functional Requirements:**
 - Users should be able to select a cryptocurrency they want to swap from their wallet.
 - The app should display a comprehensive list of available cryptocurrencies for swapping, leveraging both the xExchange platform and integrated third-party exchanges (centralized and decentralized).
 - Users should be able to specify the amount of cryptocurrency they want to swap and see the estimated amount of the received cryptocurrency based on current market rates.
 - The app should clearly display transaction fees associated with each swap option (xExchange vs. third-party exchanges).

- Users should be able to confirm the swap transaction with clear details like exchange platform used, exchange rate, and estimated time for completion.
- The app should provide transaction history for completed swaps, allowing users to track their activity.
- The swap functionality should be secure and reliable, ensuring the successful execution of transactions.
- Live market data for all supported cryptocurrencies should be integrated to provide users with accurate exchange rates.
- The swap process should be efficient and minimize transaction times.

8. NFTs

- **Functional Requirements:**

- Users should be able to view their existing NFTs stored within their connected wallets.
- The app should display relevant NFT information, including name, description, image, and contract address.
- Users should be able to view the ownership history of their NFTs.
- Potentially, allow users to transfer their NFTs to other wallets within the app (to be defined in a separate requirement document).
- The app should securely connect to users' wallets and retrieve NFT data efficiently.
- The NFT display should be visually appealing and provide clear information about each owned asset.

9. Play

- **Functional Requirements:**

- The app should integrate with a discovery platform that showcases popular and new blockchain-based games.
- Game listings should include relevant information like game genre, description, ratings, and links to download or play (if applicable).
- Potentially, allow users to connect their xPortal wallet to supported games to facilitate in-game transactions (to be defined in a separate requirement document).
- The game discovery platform should be user-friendly and allow for easy searching and filtering based on user preferences.
- The app should integrate with the discovery platform seamlessly, providing a smooth user experience.

10. News

- **Functional Requirements:**

- The app should display a dedicated news feed showcasing relevant and up-to-date information from the cryptocurrency and blockchain industry.
- News sources should be reputable and trustworthy, including a mix of official announcements, industry publications, and expert analysis.

- Users should have the ability to personalize their news feed by selecting preferred categories (e.g., Bitcoin news, DeFi updates, regulatory developments).
- The app should allow users to filter news by date, source, or keyword.
- Optionally, allow users to bookmark important news articles for future reference (to be further defined based on development effort).
- The news feed should update regularly to provide users with the latest information.
- Content displayed should be presented in a clear and concise manner, facilitating easy readability.
- The news feed should integrate seamlessly with the overall app design and user interface.
- Consider implementing notification options to alert users about breaking news or updates related to their chosen categories (to be further defined based on user preferences).

11. Target Users

xPortal targets two primary user groups:

- **Existing Crypto Users:** This group is familiar with cryptocurrencies and blockchain technology. They seek a user-friendly platform for managing their existing crypto holdings across various wallets and exchanges;
- **New Crypto Users:** This group is curious about cryptocurrencies but may lack prior experience. The app should provide a user-friendly interface and educational resources to onboard them comfortably.