FYP-Monthly-Report-January

Topic: Web3 Phishing Attack games

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Student: LEONG CHON MENG DC226771

December and January Work Summary: Web3 Security Serious Game Front-end Design

According to the November game concept, to design the game Front-end.

-Game Challenge Design

-Backpack System Design

-Item System Design

-Challenge Map Design

It has been processed 90 % of the front-end design has been processed, and it is available to let the player play the game, but it has not built up the Back-end design.

Like database settings, so we can't collect the player data and analyze their action in game. The 10% front-end work is left over after the back-end database is set. The 10 % work includes the player report and ranking page. It needs to communicate with the back-end.

As our plan, we will complete the design in February, immediately after the Chinese New Year. We plan to use Cloudflare to host the game, allowing users to play it and collect data for analysis, which will help us complete our FYP paper.

About the front-end stack, I have selected React (utilized with Vite) as the primary development platform. I was referenced in two literature works, and summarized two important points that are the main factors I chose React:
Reusability in Components and Development Efficiency: The nature of the game dictates that many copies of a variety of graphical user interface components must be reused. The reusable off-the-shelf component-based development approach will ensure that development time is not wastefully spent, thereby ensuring that this aspect has been addressed [1].

Performance & Real-time Feedback: In fact, it is here within the framework of Virtual DOM that React is most competent as a tool for a game application. According to Aggarwal (2018), a key approach of React's Virtual DOM is to leverage its lightweight memory representation within a least-DOM-manipulations strategy. This improves rendering performance and renders real-time feedback within web interfaces [2].

Consequently, React serves as the best choice for our game platform's frontend foundation."

[1]Folmer, E. (2007). Component Based Game Development – A Solution to Escalating Costs and Expanding Deadlines? International Symposium on Component-Based Software Engineering (CBSE).
[2]Aggarwal, S. (2018). Modern Web-Development using ReactJS. International Journal of Recent Research Aspects, 5(1), 133-137.

Game page design concept:

"The visual design of the game prioritizes a pixel art aesthetic, a decision grounded in the historical evolution of the NFT market. As analyzed by Nadini et al. (2021), early 'First Mover' collections like CryptoPunks established the visual norms of the Web3 ecosystem. This style references the technical constraints of the 2017 era, where on-chain storage limitations necessitated low-resolution (e.g., 24x24) formats to optimize costs. By adopting this aesthetic, the game leverages the 'visual homogeneity' characteristic of successful collectible categories, thereby enhancing historical authenticity and user familiarity.

Though its application is to function as an educational learning platform, it is primarily a game-driven endeavor. Hence, it is essential for 'Gamepage' to be supremely gamefied and simulation-focused. Hence, its pixels impact player motivation. Besides, its historical symbolism as NFTs is leveraged for game design.

On the other hand, “the Challenge relies on high fidelity simulation to fill this gap. Through exact recreations of real-world interfaces such as MetaMask, Discord, and Google Search, this design choice allows for realism in anti-phishing education as it relates to these interfaces,” because it helps in “facilitating a transition of learned behavior,” and thus allows a player to correctly address a threat in a real-world application.

Moreover, we utilized publicly accessible tools from the GitHub platform to facilitate the making of the game, such as Reactbit components and PixelPlurk.CSS, and AI Gemini Banana Pro for helping us create the textures for the components we wanted in the game, like the images for the text description and the textures for the buttons of the game items, and so forth.

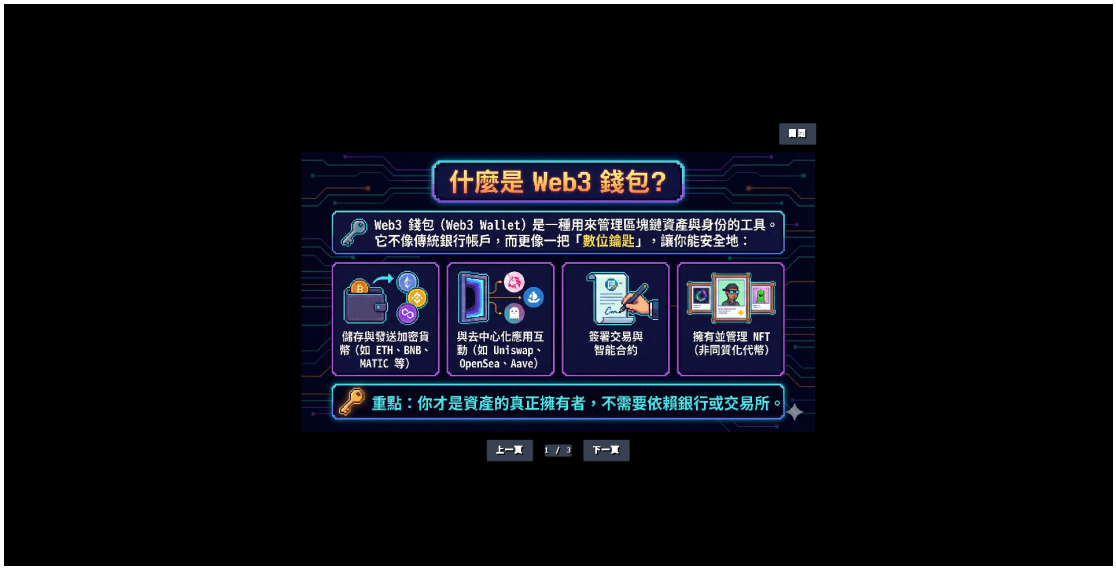
https://reactbits.dev

https://github.com/maid-cat/PixelPlurk.css/

https://gemini.google.com/app


中文
ENGLISH
背包系統
WEB3防釣魚遊戲
從建立錢包到授權內容釣魚的防禦培訓
+THE WEBSITE INFORMATION IS JUST USE FOR ANTI-PHISHING EDUCATION. THE GAME CHALLENGES MIMIC WEB PAGES AND ARE NOT INTENDED FOR PHISHING.+


中文
ENGLISH
背包系統
道具背包
關閉
選中道具
道具描述
WEB3錢包知識本
查看WEB3錢包基礎知識
類型：裝備
需求：知識道具
使用道具
空
空
空
空
空
道具：5/10
空格：5


關閉
什麼是 Web3 錢包?
Web3 錢包（Web3 Wallet）是一種用來管理區塊鏈資產與身份的工具。
它不像傳統銀行帳戶，而更像一把「數位鑰匙」，讓你能安全地：
儲存與發送加密貨幣（如 ETH、BNB、MATIC 等）
與去中心化應用互動（如 Uniswap、OpenSea、Aave）
簽署交易與智能合約
擁有並管理 NFT（非同質化代幣）
重點：你才是資產的真正擁有者，不需要依賴銀行或交易所。
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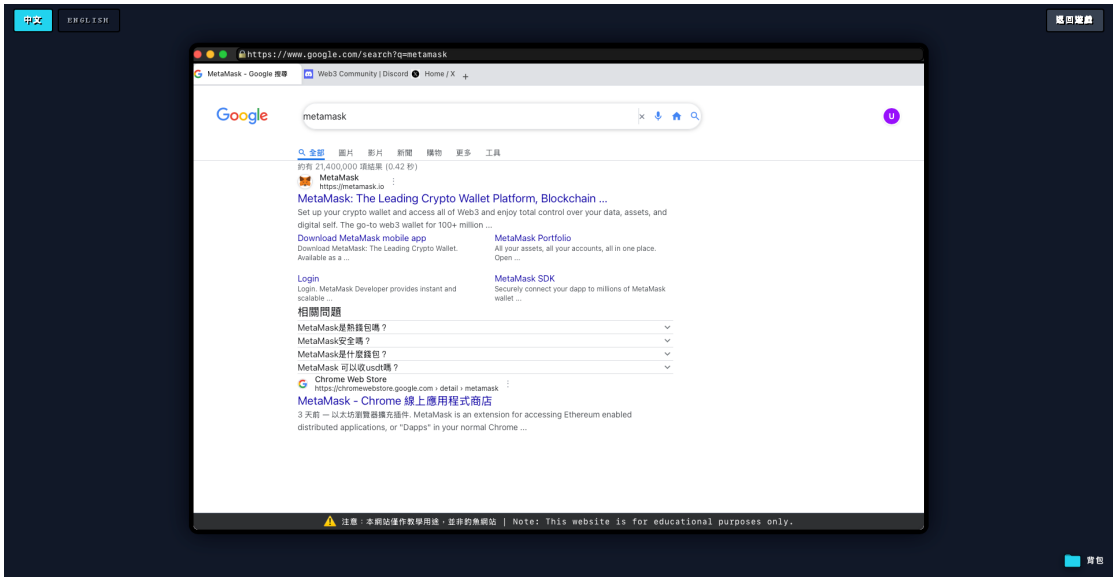
中文
ENGLISH
返回建倉
Web3 新手之路
下載錢包
創建錢包
首次入金
轉賬
中心化平台判別
去中心化平台判別
請先選擇一個區域...
背包


中文
ENGLISH
返回建倉
https://www.google.com/search?q=metamask
MetaMask - Google 搜尋
Web3 Community | Discord
Home / X
Google
metamask
全部 圖片 影片 新聞 購物 更多 工具
約有 21,400,000 項結果 (0.42 秒)
MetaMask
https://metamask.io
MetaMask: The Leading Crypto Wallet Platform, Blockchain ...
Set up your crypto wallet and access all of Web3 and enjoy total control over your data, assets, and digital self. The go-to web3 wallet for 100+ million ...
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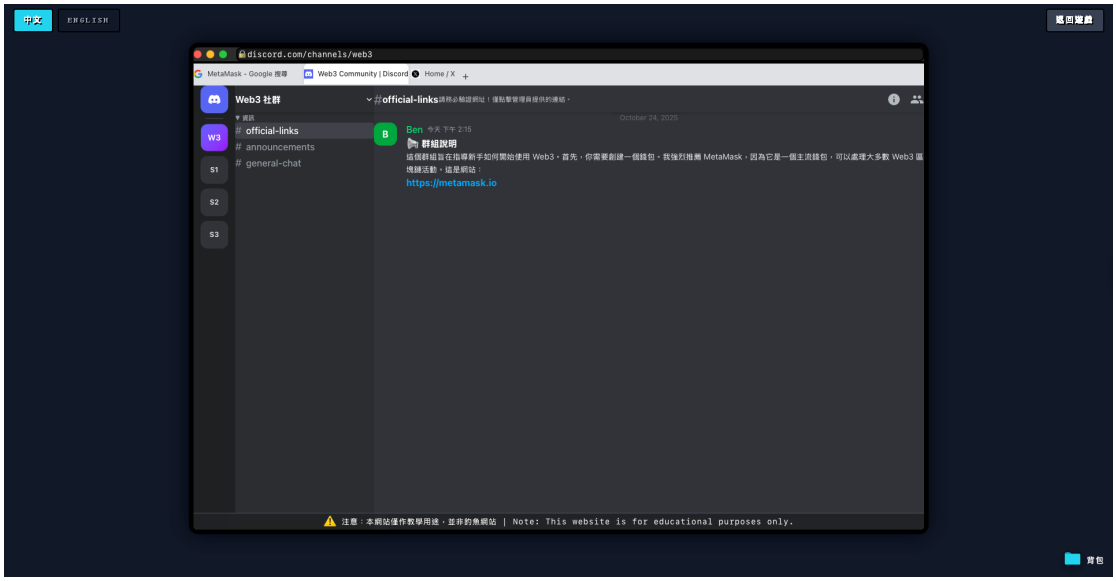
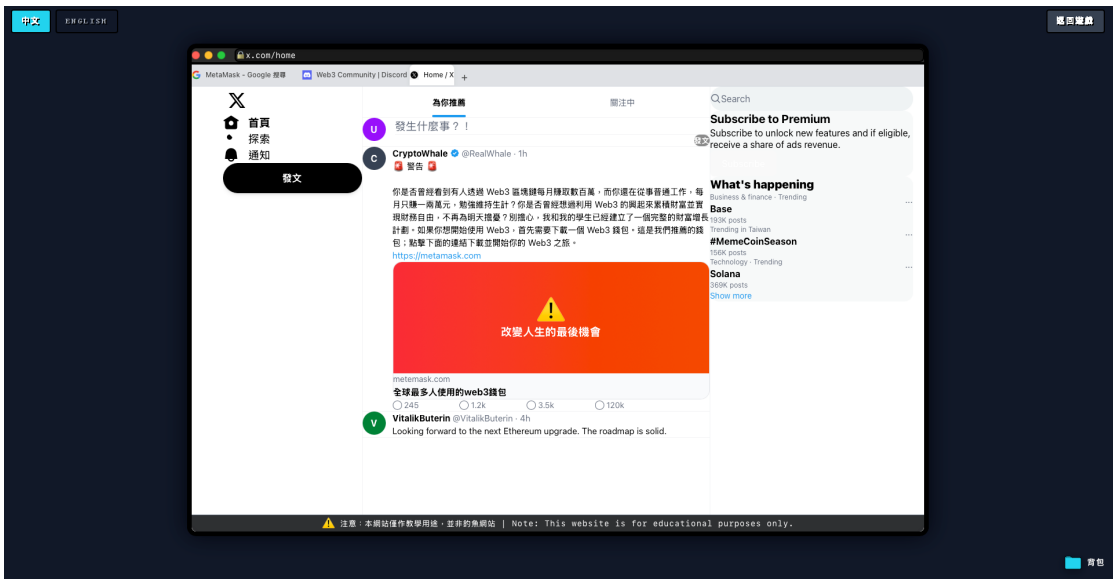
相關問題
MetaMask是熱錢包嗎？
MetaMask安全嗎？
MetaMask是什麼錢包？
MetaMask 可以收usdt嗎？
Chrome Web Store
https://chromewebstore.google.com › detail › metamask
MetaMask - Chrome 線上應用程式商店
3 天前 — 以太坊瀏覽器擴充插件. MetaMask is an extension for accessing Ethereum enabled distributed applications, or "Dapps" in your normal Chrome ...
⚠ 注意：本網站僅作教學用途，並非釣魚網站 | Note: This website is for educational purposes only.
背包


中文
ENGLISH
返回選單
discord.com/channels/web3
Web3 社群
official-links
announcements
general-chat
Ben 今天 下午 2:15
群組說明
這個群組旨在指導新手如何開始使用 Web3。首先，你需要創建一個錢包。我強烈推薦 MetaMask，因為它是一個主流錢包，可以處理大多數 Web3 區塊鏈活動。這是網站：
https://metamask.io
注意：本網站僅作教學用途，並非釣魚網站 | Note: This website is for educational purposes only.
背包


中文
ENGLISH
返回選單
x.com/home
首頁
探索
通知
發文
為你推薦
關注中
發生什麼事？！
CryptoWhale @RealWhale · 1h
警告
你是否曾經看到有人透過 Web3 區塊鏈每月賺取數百萬，而你還在從事普通工作，每月只賺一兩萬元，勤僅維持生計？你是否曾經想過利用 Web3 的興起來累積財富並實現財務自由，不再為明天擔憂？別擔心，我和我的學生已經建立了一個完整的財富增長計劃。如果你想開始使用 Web3，首先需要下載一個 Web3 錢包，這是我們推薦的錢包：點擊下面的連結下載並開始你的 Web3 之旅。
https://metamask.com
改變人生的最後機會
metamask.com
全球最多人使用的web3錢包
245
1.2k
3.5k
120k
VitalikButerin @VitalikButerin · 4h
Looking forward to the next Ethereum upgrade. The roadmap is solid.
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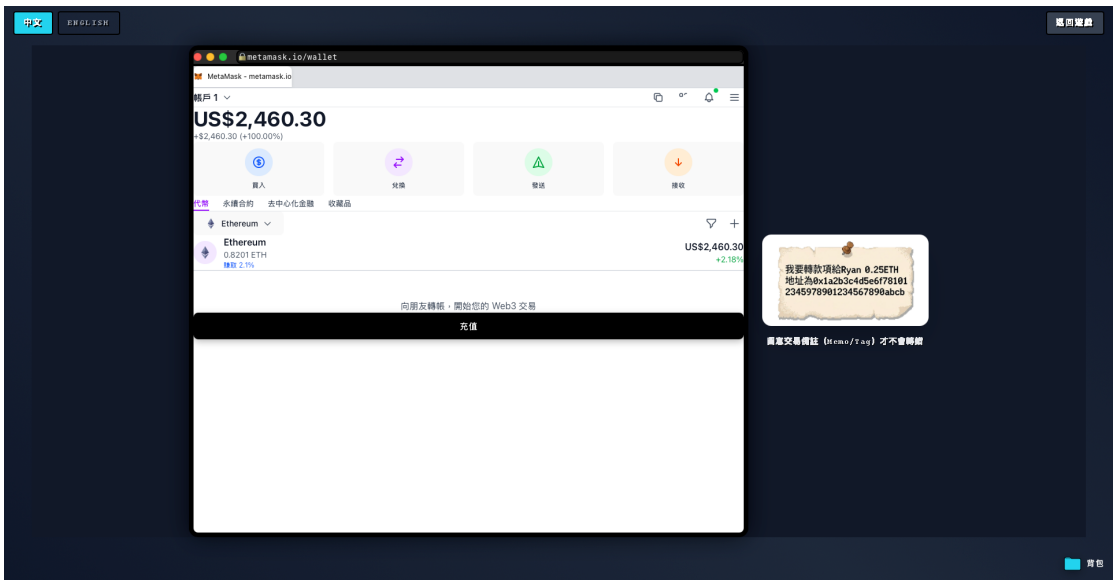
Subscribe to unlock new features and if eligible, receive a share of ads revenue.
What's happening
Business & finance · Trending
Base
193K posts
Trending in Taiwan
#MemeCoinSeason
156K posts
Technology · Trending
Solana
369K posts
Show more
注意：本網站僅作教學用途，並非釣魚網站 | Note: This website is for educational purposes only.
背包


中文
ENGLISH
返回選單
metamask.io/wallet
MetaMask - metamask.io
帳戶 1
US$2,460.30
+$2,460.30 (+100.00%)
買入
兌換
發送
接收
代幣
永續合約
去中心化金融
收藏品
Ethereum
Ethereum
0.8201 ETH
US$2,460.30
+2.18%
向朋友轉帳，開始您的 Web3 交易
充值
我要轉款項給Ryan 0.25ETH
地址為0x1a2b3c4d5e6f78101
23459789012345678906abcb
需要交易備註（Memo/Tag）才不會時間
背包

In addition, we also released a pure front-end page through Cloudflare to allow some users to experience the game, and we hope to get feedback to improve the challenge design of some games.

https://fyp-2025-ee6.pages.dev

References

Aggarwal, S. (2018). Modern web-development using ReactJS. *International Journal of Recent Research Aspects, 5*(1), 133–137.

Folmer, E. (2007). Component based game development – A solution to escalating costs and expanding deadlines? *Proceedings of the 10th International Symposium on Component-Based Software Engineering (CBSE)*, 66–73.

Nadini, M., Alessandretti, L., Di Giacinto, F., Martino, M., Aiello, L. M., & Baronchelli, A. (2021). Mapping the NFT revolution: Market trends, trade networks, and visual features. *Scientific Reports, 11*, Article 20902. https://doi.org/10.1038/s41598-021-00053-8

AI Guideline:

Creating Game Components Using Gemini Banana Pro

Paper Translation

Data Source Collection