A Crypto-Payment Digital Gift Card Platform

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Introduction

Assalamualaikum and good-morning. Today I will present my work on a digital gift-card system.

What is the System?

This is a modern and fully digital gift card system. Users can buy gift cards from popular brands like **Google Play, Apple, Amazon, Netflix, Xbox, Spotify**, and many more. The main advantage is that payments are made only through **cryptocurrency**.

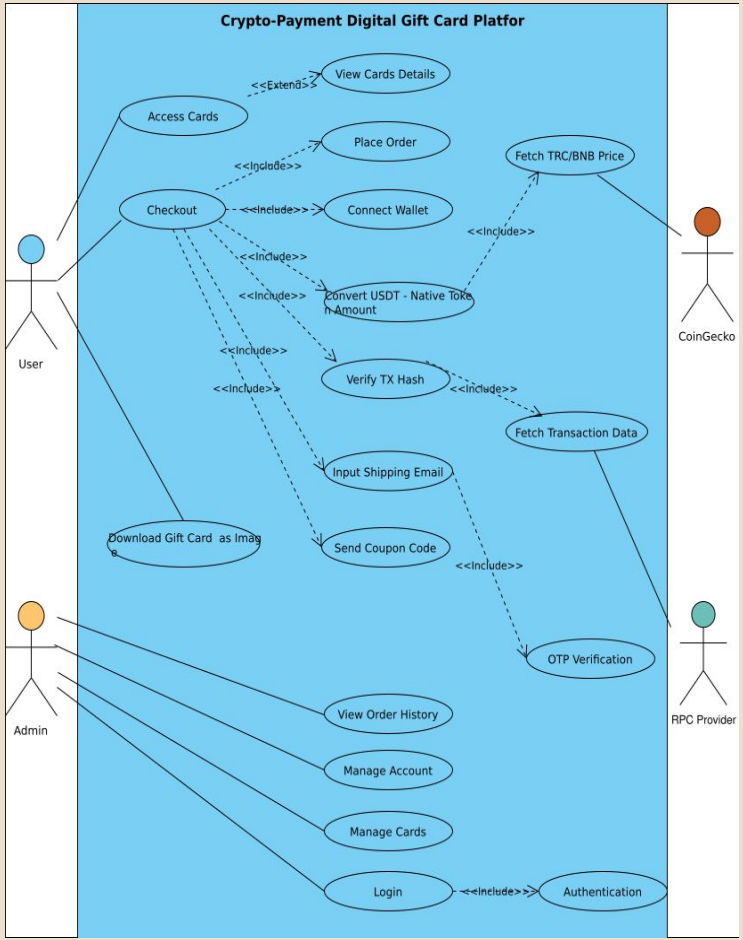
Motivation for the Project

- Using gift-card by-passes some payment complexity
- Limited access to international payment methods
- Safe and fast digital purchases
- Popular global use cases
- There is no traditional banking barriers
- Simplified gifting experience

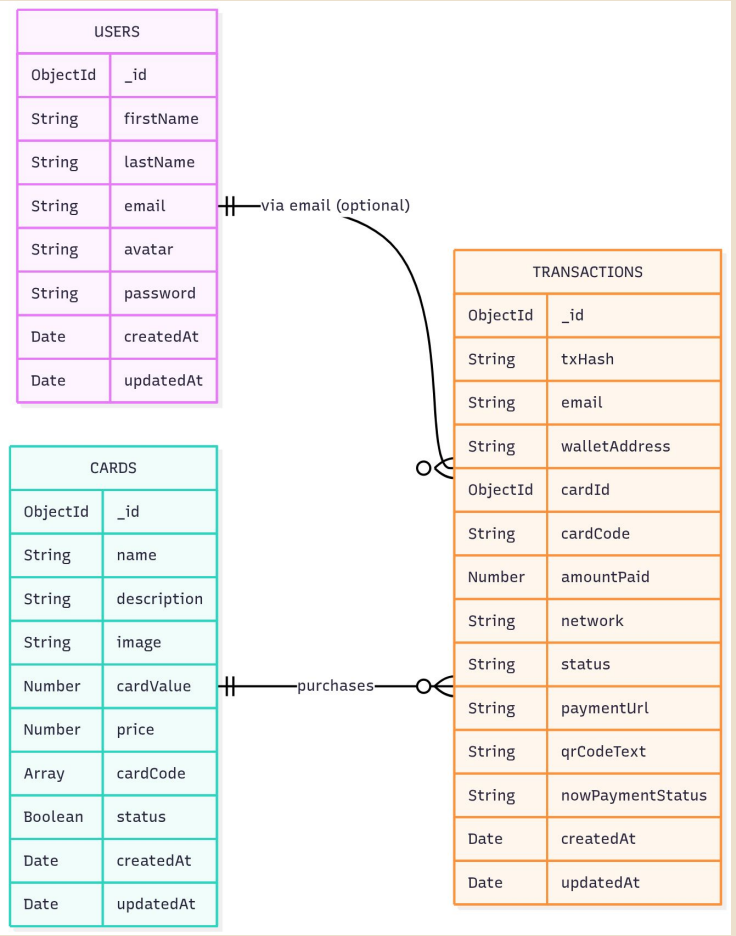
Features

- Crypto Payment Support — Fast, low-fee payments using Tron and BNB Chain
- Instant Delivery — Gift card codes are sent immediately after payment confirmation
- Secure Code Handling — Encrypted storage and automated verification
- Multi-Wallet Support — Easy connection through MetaMask and TronLink
- Smooth User Experience — Fast checkout and minimal steps
- Scalable Architecture — Easy to add more networks and wallets in the future

Use Case Diagram



ERD Diagram


USERS
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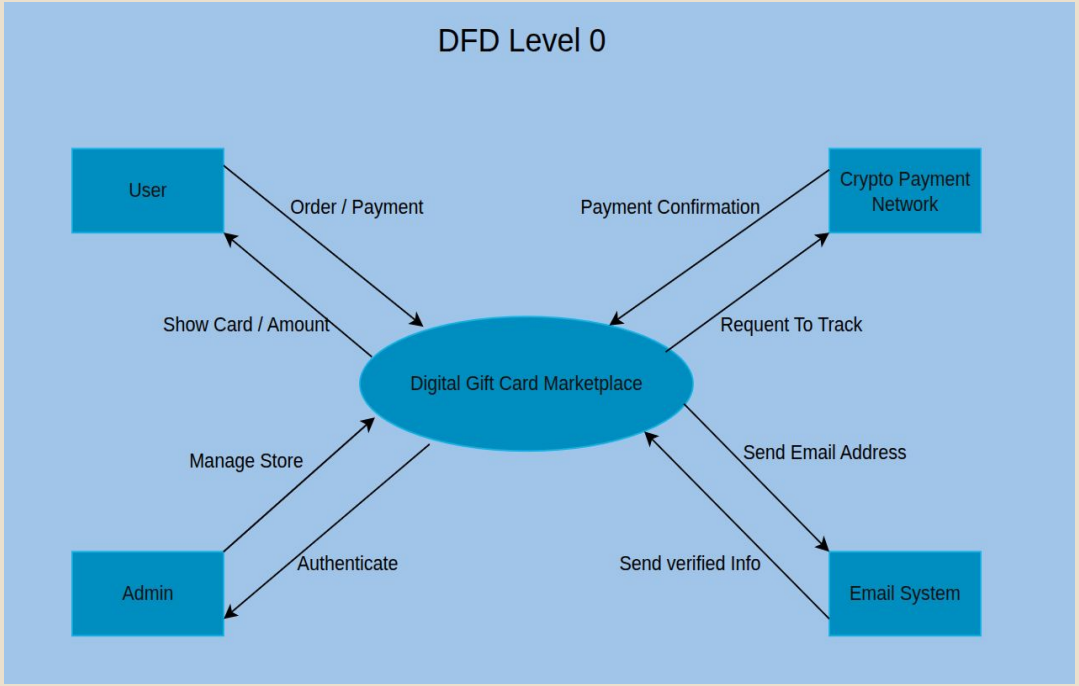
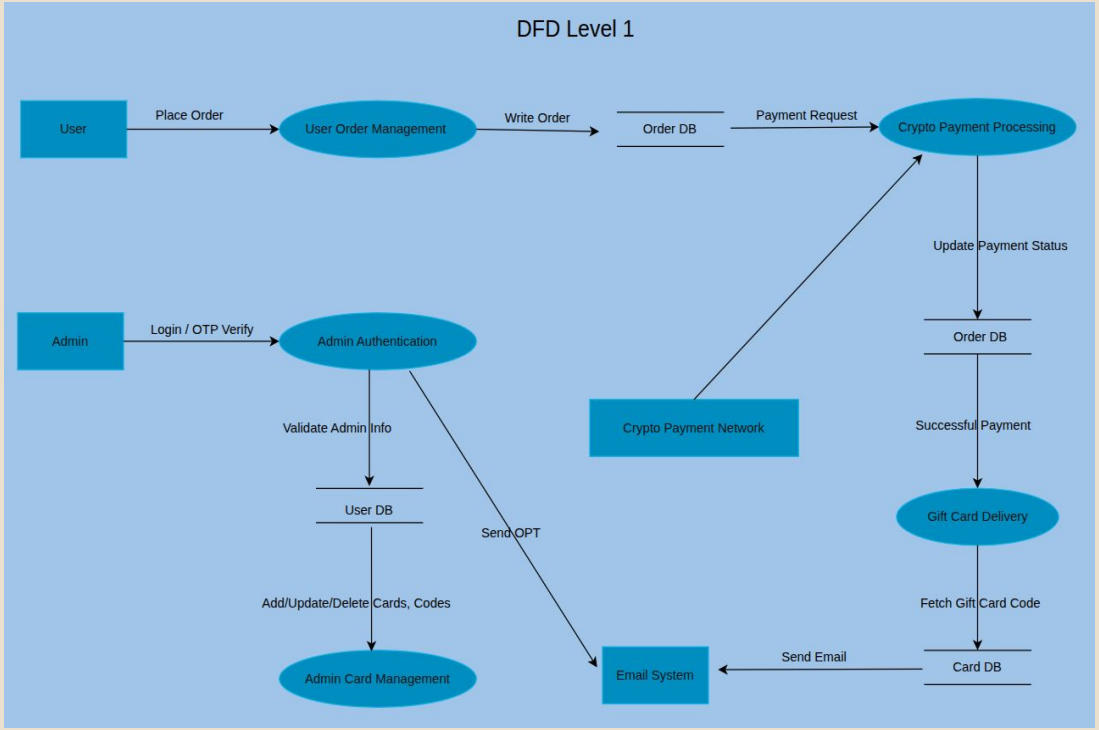
String lastName
String email
String avatar
String password
Date createdAt
Date updatedAt
via email (optional)
TRANSACTIONS
ObjectId _id
String txHash
String email
String walletAddress
ObjectId cardId
String cardCode
Number amountPaid
String network
String status
String paymentUrl
String qrCodeText
String nowPaymentStatus
Date createdAt
Date updatedAt
CARDS
ObjectId _id
String name
String description
String image
Number cardValue
Number price
Array cardCode
Boolean status
Date createdAt
Date updatedAt
purchases

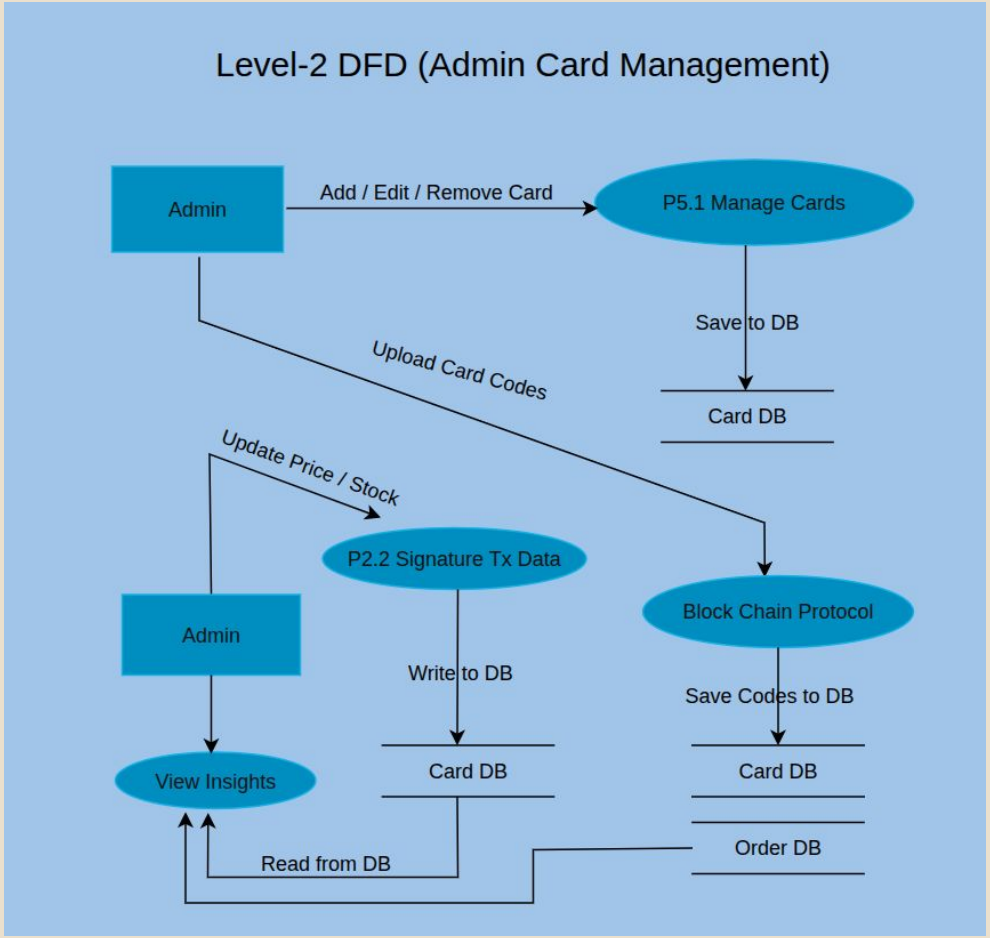
DFD: Level 0


DFD Level 0
User
Order / Payment
Payment Confirmation
Crypto Payment Network
Show Card / Amount
Requent To Track
Digital Gift Card Marketplace
Manage Store
Send Email Address
Admin
Authenticate
Send verified Info
Email System

DFD: Level 1


DFD Level 1
User
Place Order
User Order Management
Write Order
Order DB
Payment Request
Crypto Payment Processing
Update Payment Status
Admin
Login / OTP Verify
Admin Authentication
Order DB
Crypto Payment Network
Validate Admin Info
Successful Payment
User DB
Gift Card Delivery
Send OPT
Add/Update/Delete Cards, Codes
Fetch Gift Card Code
Admin Card Management
Email System
Send Email
Card DB

DFD: Level 2 Admin Card Management



Payment System – Crypto Ecosystem

Crypto payments are the core feature of our platform.
At launch, we support two widely used networks:

- **Tron (TRX)**
- **BNB Smart Chain (BNB)**

Why Tron and BNB Chains?

- Low Fees: Very low transaction costs
- High Speed: Fast confirmations for a smooth user experience
- Wide Adoption: Popular and globally supported networks
- Stable Ecosystem: Reliable wallets, tools, and developer support
- Reliable Payments: Practical networks for gift card and digital purchases

Desktop Browser Wallet Support

- TronLink Wallet Extension (for Tron network)
- MetaMask Wallet Extension (for BNB Smart Chain)

Mobile Wallet Connection

- Creates an encrypted session between the dApp and mobile wallets using QR code or deep link
- Communicates requests using secure JSON-RPC
- Supports multiple wallets such as MetaMask, TrustWallet, Coinbase Wallet, and many others
- Users fully control whether to accept or deny any transaction request

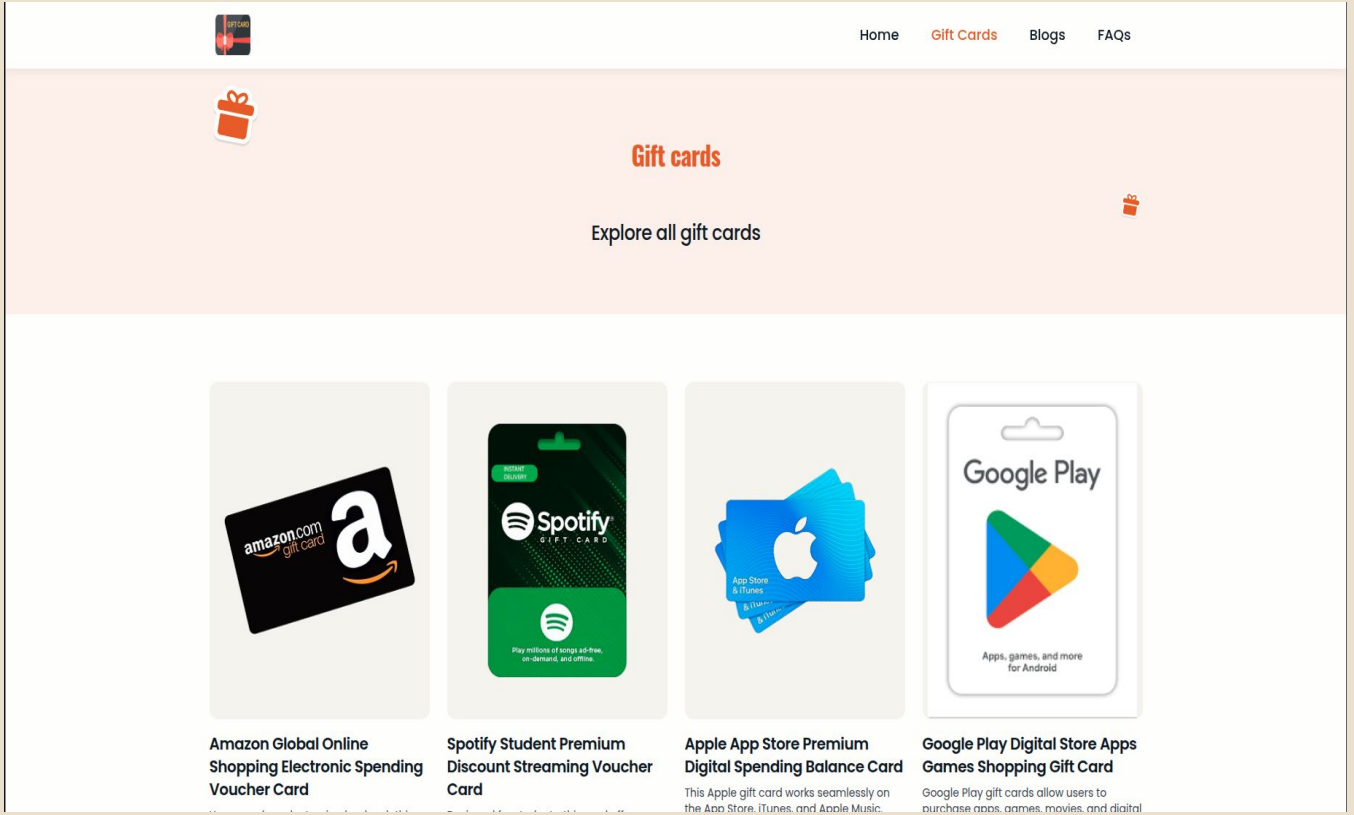
UI

HOME Page

Home
Gift Cards
Blogs
FAQs
The Ultimate Gift Card Store
Purchase Using Crypto
Google Play
Apple
Steam
PlayStation
Xbox
Amazon
Netflix
Spotify
More!
e payment
nultiple payment options
Receive your code instantly
Get your code delivered via email immediately
Redeem & enjoy!
Use your gift card and start shopping
Choose your card
Select from our wide range of gift cards
Choose You Card
$60

UI

Cards List



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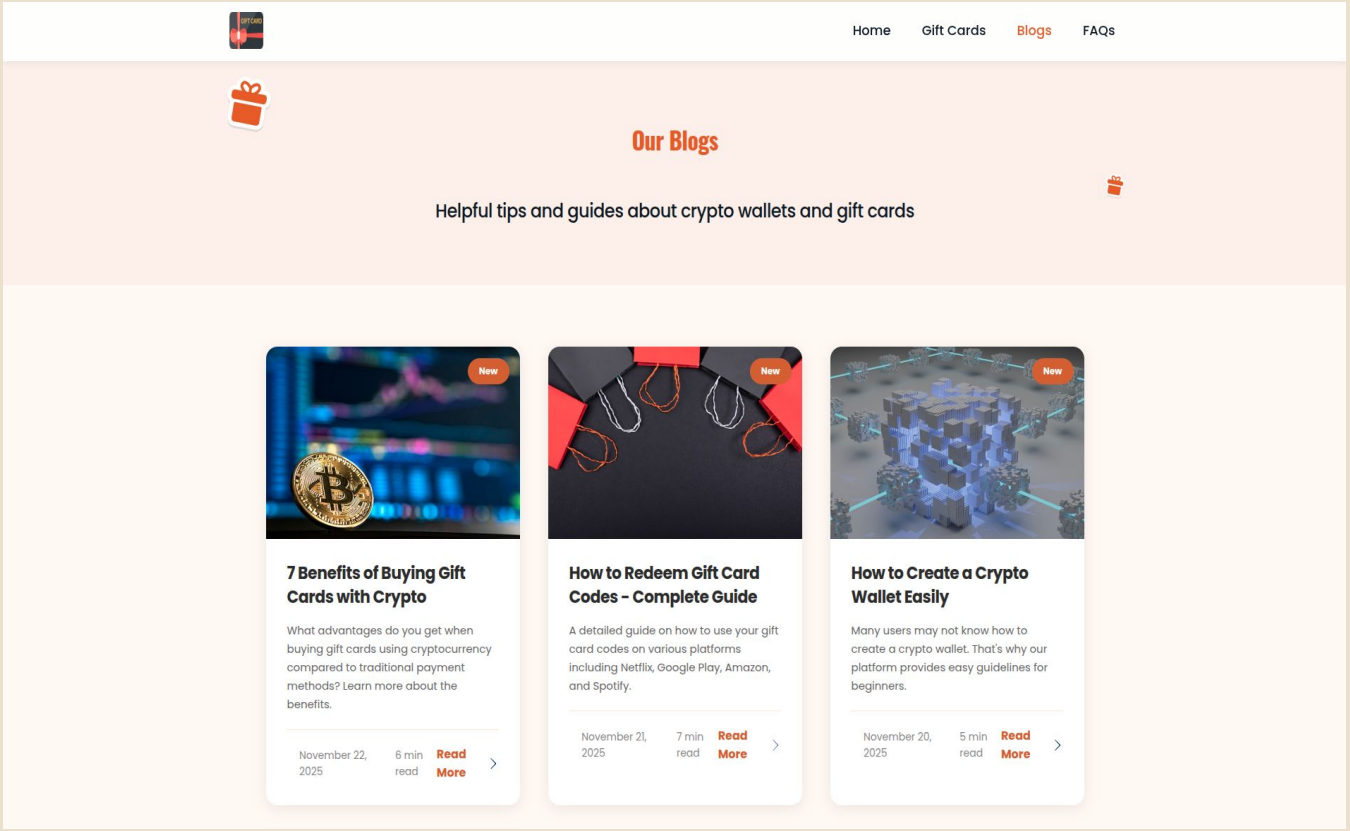
Blogs List



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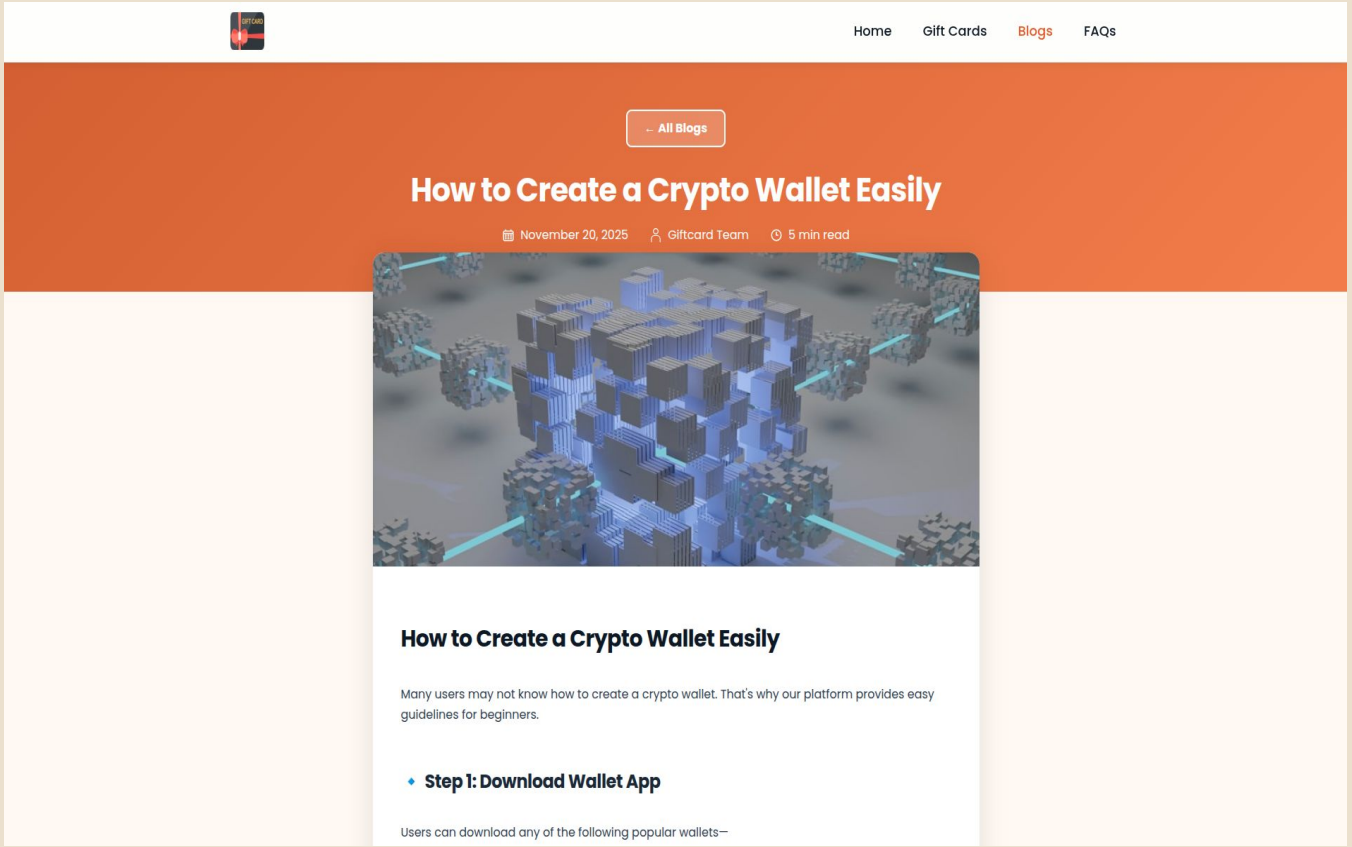
Blog Post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FAQs
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How to Create a Crypto Wallet Easily
November 20, 2025
Giftcard Team
5 min read
How to Create a Crypto Wallet Easily
Many users may not know how to create a crypto wallet. That's why our platform provides easy guidelines for beginners.
Step 1: Download Wallet App
Users can download any of the following popular wallets—

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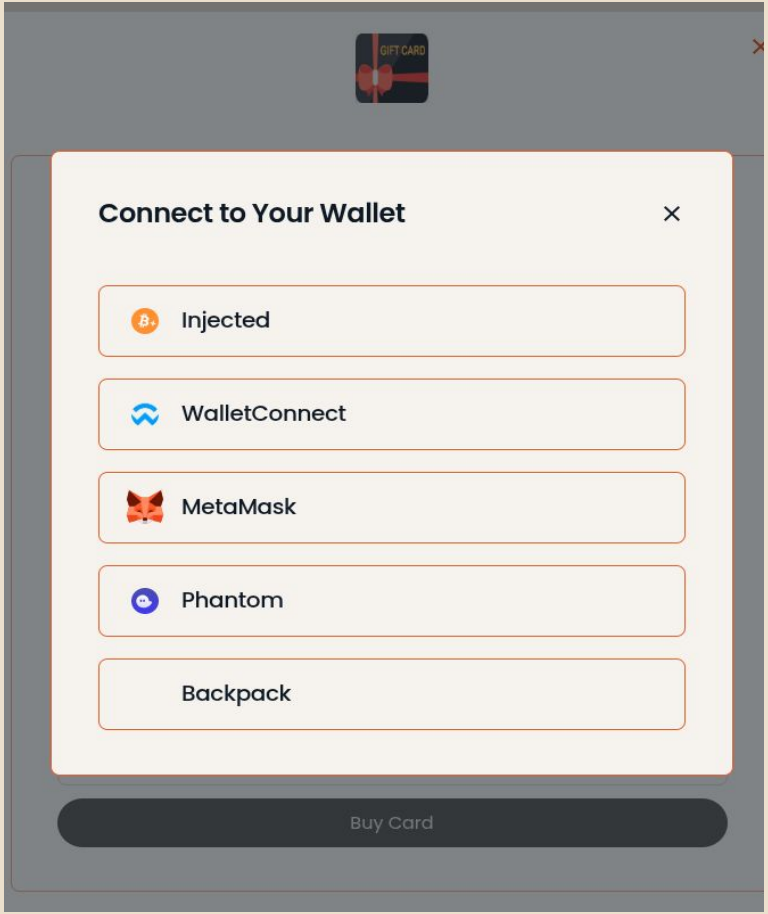
Wallet Modal



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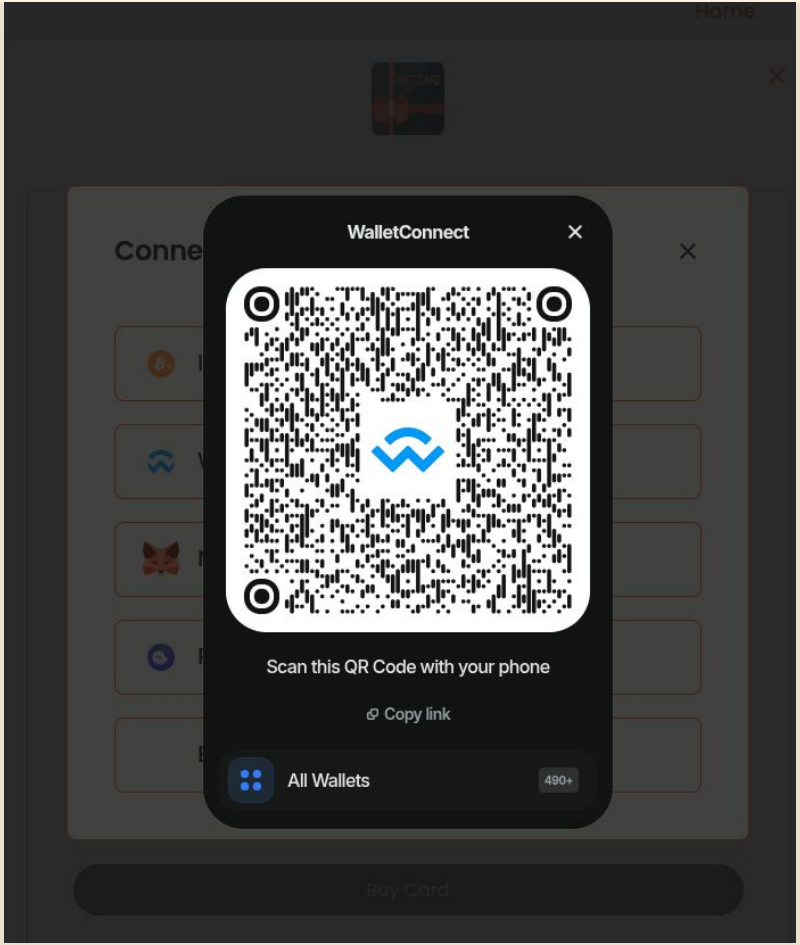
Wallet Connect Modal



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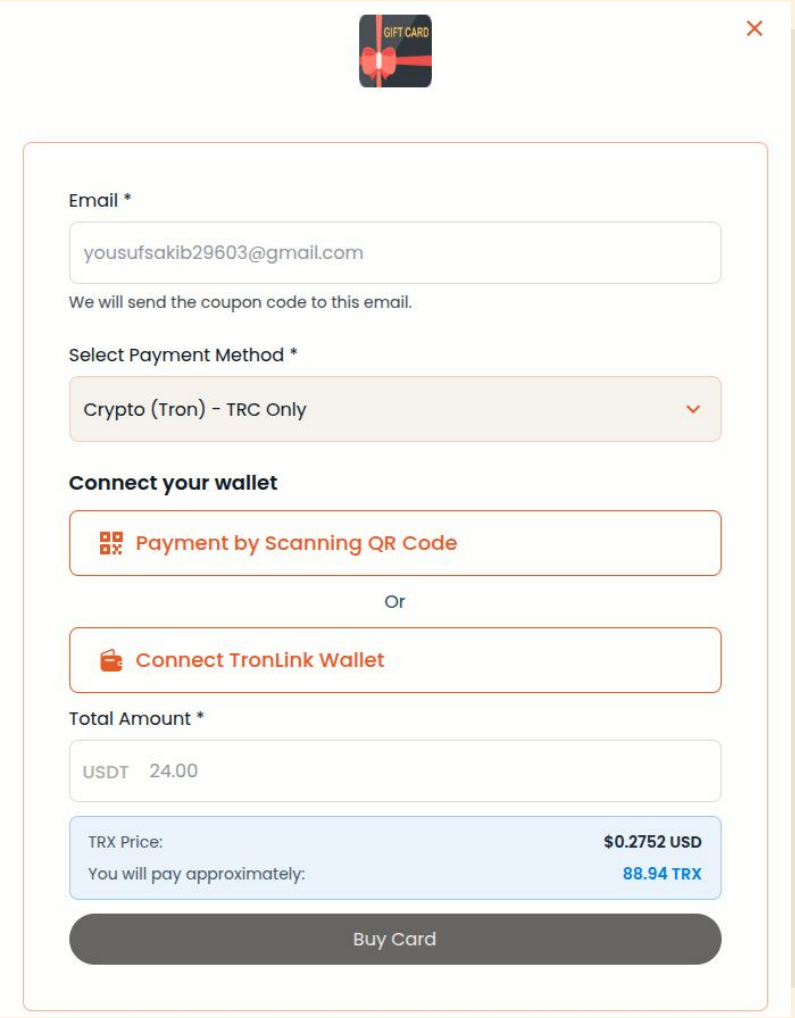
Checkout Modal



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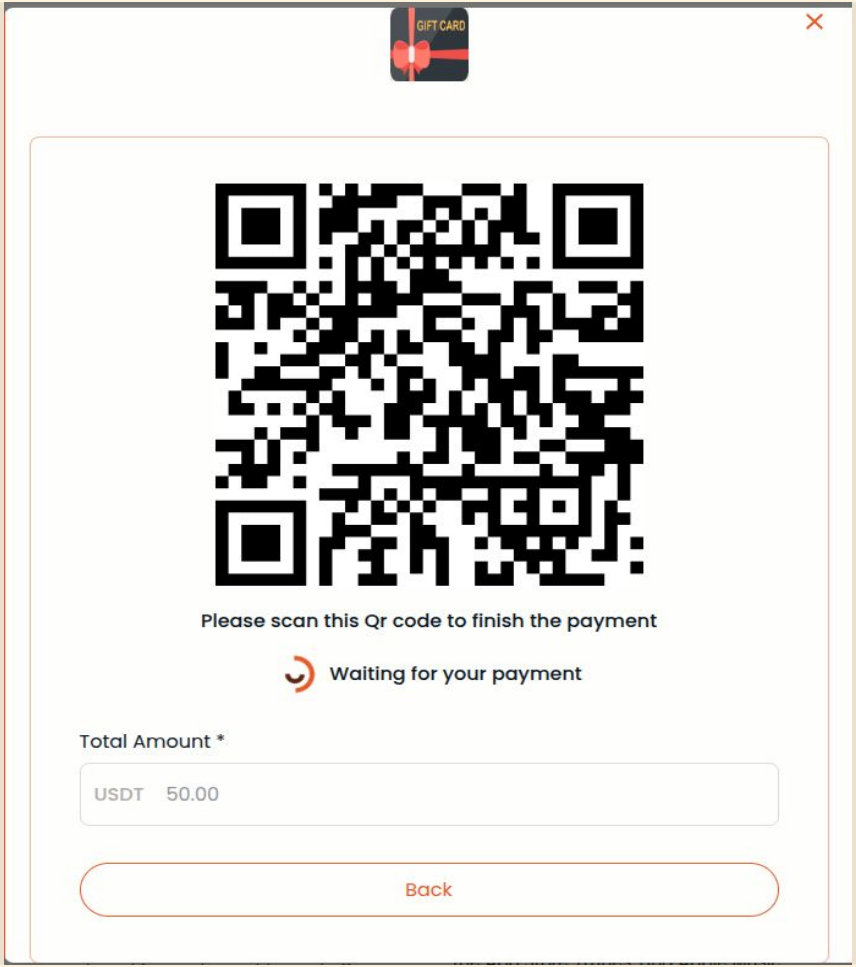
Qr code pay Modal



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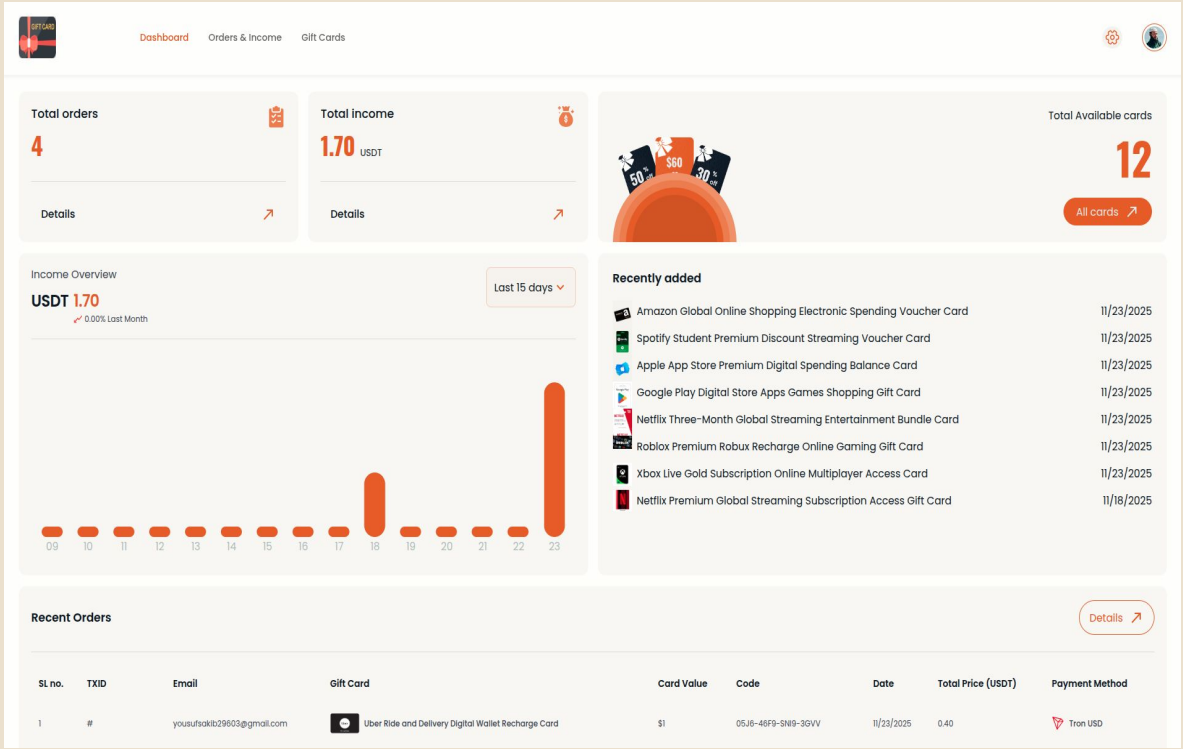
Admin Dashboard



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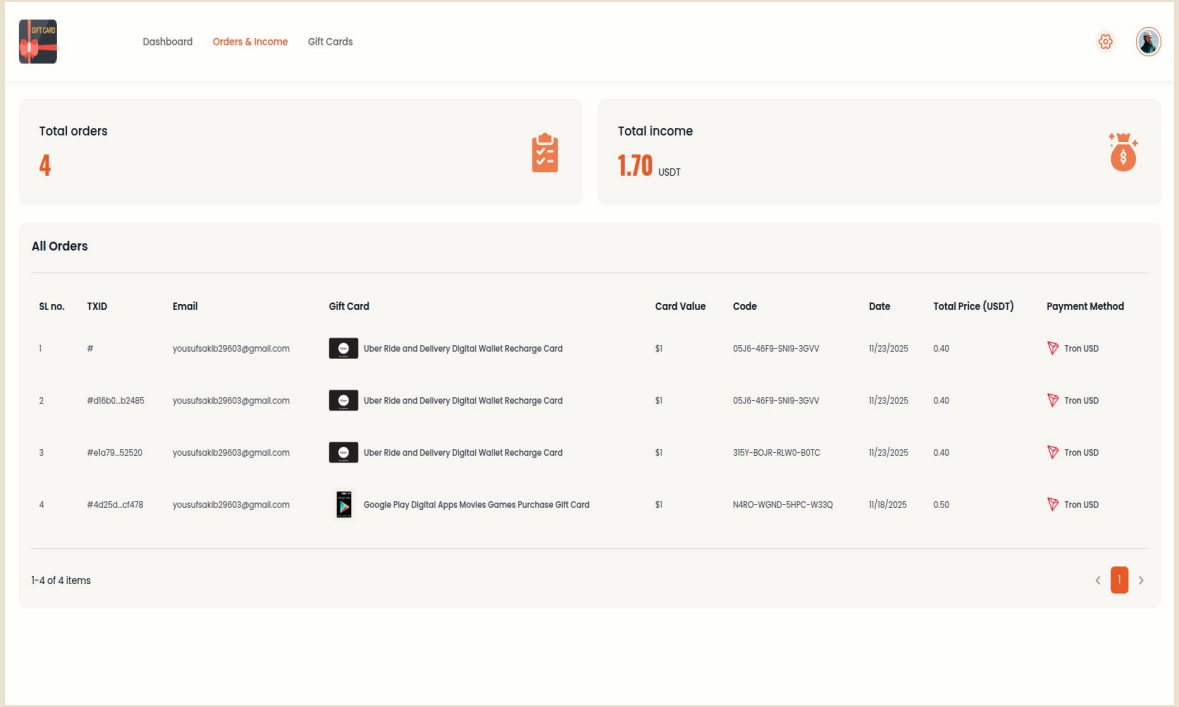
Orders & Income



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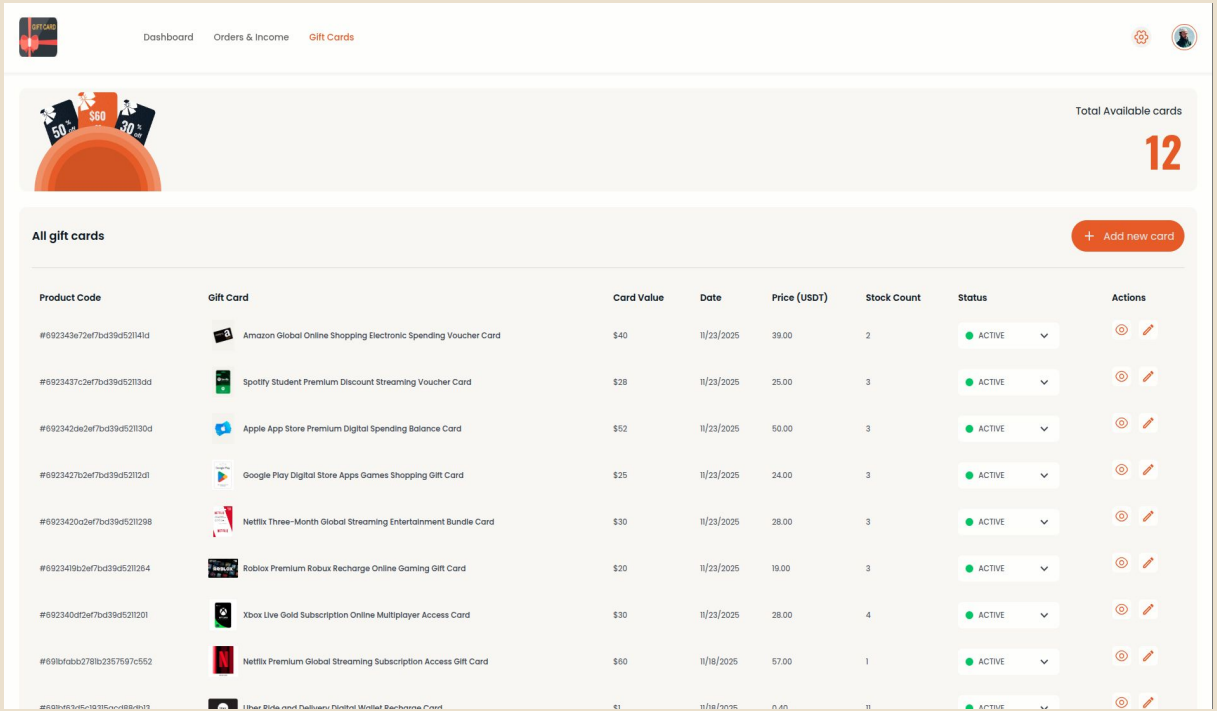
Cards Management



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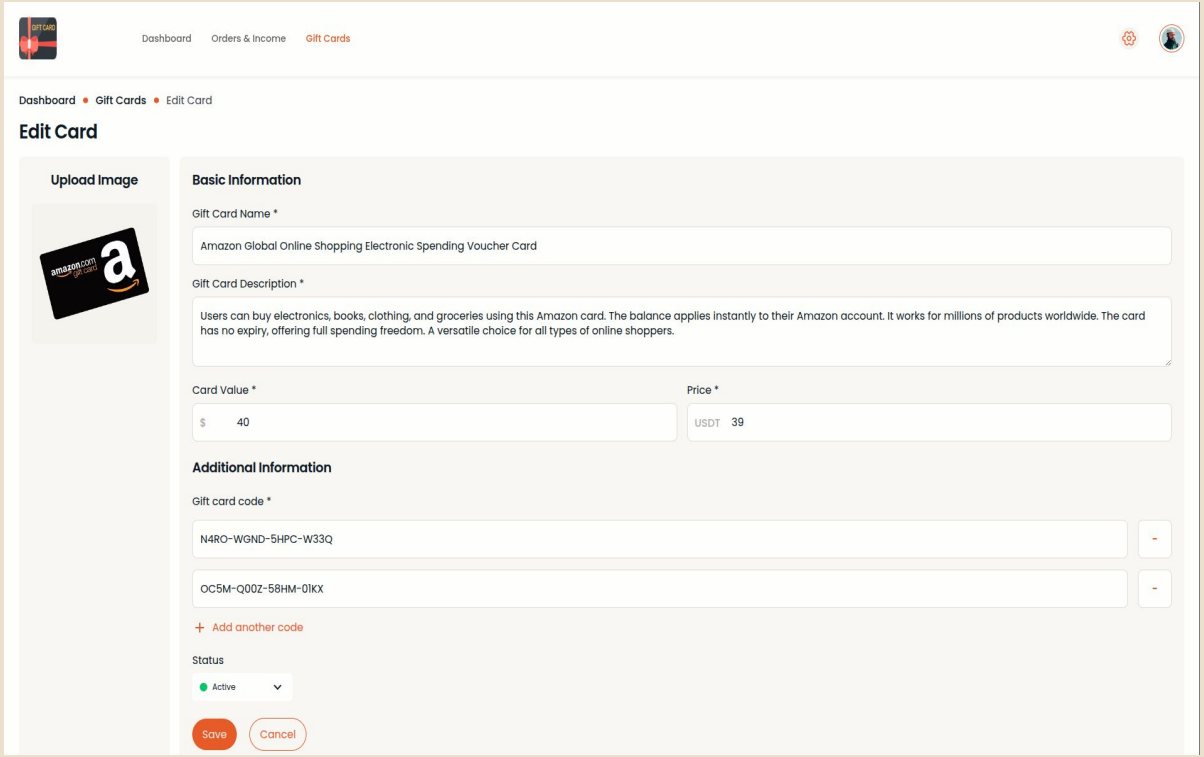
Add/Edit Card



Future Work

- **Category-Based Search**
  Improve user experience by allowing card browsing and filtering through specific categories.
- **Reduced Payment Processing Time**
  Optimize payment flow to make purchases faster and smoother for users.
- **Support for More Blockchain Ecosystems**
  Integrate additional blockchain networks to increase flexibility and payment options.

Thank You