

KaryaChain

Blockchain-Powered Copyright Protection
for Indonesian Creators

OJK-Ekraf Infinity Hackathon 2025

Digital Rights & Authentication

karyachain.ectorspace.com

Team: RECTOR

Indonesian Creators Face **Critical Challenges**



No Accessible Copyright Protection

- Traditional registration: expensive, slow, bureaucratic
- Average cost: IDR 1-5 million per work
- Processing time: 3-6 months



Rampant IP Theft

- 70%+ of digital creators experience unauthorized use
- Difficult to prove ownership and creation date
- Limited legal recourse for small creators



Lost Revenue

- Creators can't monetize secondary sales
- No infrastructure for perpetual royalties
- Global marketplace access barriers



Target Market

- 63 million+ creative economy workers in Indonesia
- Growing digital creator ecosystem
- Need for affordable, accessible protection

Blockchain-Based Copyright Registry + NFT Marketplace

A decentralized platform that provides:



Instant Copyright Registration

- ✓ One-click registration with blockchain timestamp
- ✓ Immutable proof of ownership
- ✓ Cost: ~\$0.50 (gas fees only)



NFT Minting with Royalties

- ✓ Convert copyrights into tradeable NFTs
- ✓ Set custom royalties: 5-20%
- ✓ Earn on every resale, forever



Decentralized Marketplace

- ✓ List and sell creative works globally
- ✓ Automatic royalty distribution
- ✓ Transparent, secure transactions



IPFS Storage

- ✓ Decentralized file storage
- ✓ Permanent, censorship-resistant
- ✓ Content addressing for verification

Simple 4-Step Process

From creation to global marketplace in minutes

1



Upload Creative Work

Upload your file and add metadata

2



Register on Blockchain

Immutable proof of ownership

3



Mint NFT

Convert to tradeable NFT with royalties

4



List on Marketplace

Sell globally, earn forever

Key Innovations

- Perpetual Royalties
- Verifiable Ownership
- Global Access

Demo: Copyright Registration

Complete flow from upload to blockchain



Upload File



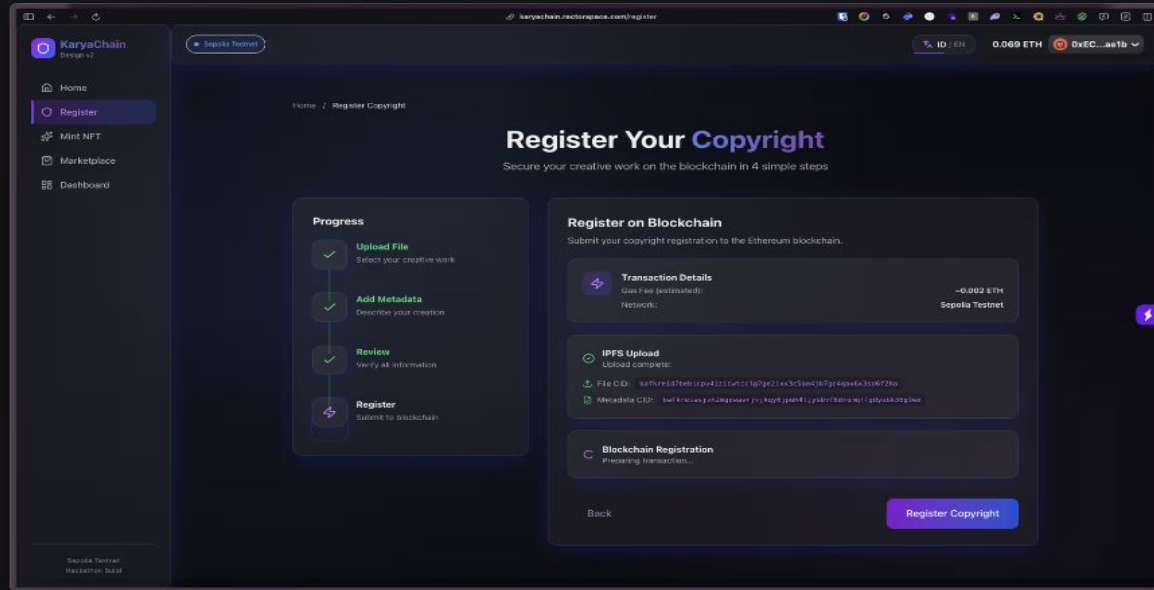
Add Metadata



Review



Submit to Blockchain



<2 min registration



Immutable proof



IPFS storage



Ready to mint

Demo: Creator Dashboard

Manage your creative assets in one place



My Copyrights

View all registered works

- ✓ Copyright ID & timestamp
- ✓ Asset type & metadata
- ✓ IPFS storage links
- ✓ Quick access to mint NFT



NFT Collection

Your minted NFTs

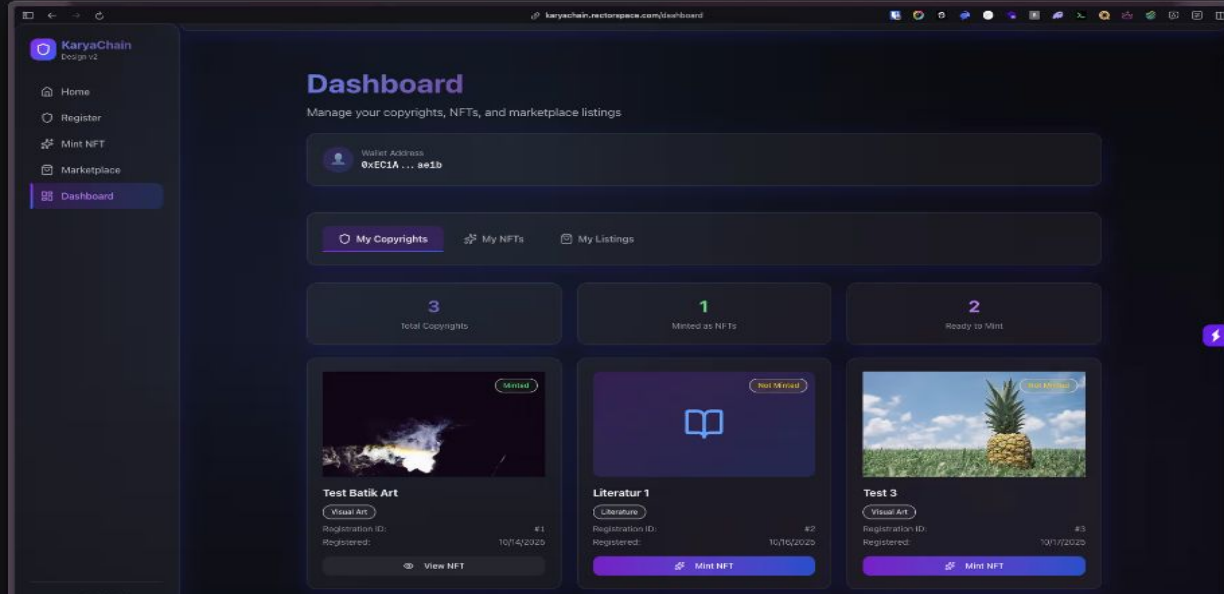
- ✓ NFT ownership proof
- ✓ Royalty settings
- ✓ Transfer history
- ✓ List on marketplace



My Listings

Active marketplace sales

- ✓ Current price & status
- ✓ View count & analytics
- ✓ Delist anytime
- ✓ Track earnings



Demo: NFT Minting with Perpetual Royalties

Turn your copyrights into income-generating assets



Customizable Royalty

Set your royalty rate between 5-20%



Earnings Calculator

Real-time projection of future earnings



Perpetual Income

Earn on every resale, forever



Example Calculation

Initial Sale:	0.5 ETH
Royalty Rate:	10%
10 Resales @ 1 ETH:	1 ETH earned
Total Earnings:	1.5 ETH

Mint NFT

Copyright Details

Title:

Type:

Registration ID:

Set Your Royalty

10%

5% (Min)

20% (Max)

You'll earn 10% royalty on every resale of this NFT, forever.

Earnings Calculator

Example Sale Price:

Your Royalty per Sale:

Average Resales:

Lifetime Earnings Estimate: **~0.500 ETH**

* Based on historical NFT market data. Actual earnings may vary.

Fee Breakdown

Gas Fee (estimated):

Platform Fee:

Cancel

Mint NFT



Earn passive income forever, not just on first sale!

Demo: Decentralized Marketplace

Browse, discover, and purchase creative works on-chain



Smart Search & Filters

Find NFTs by asset type, price range, and keywords



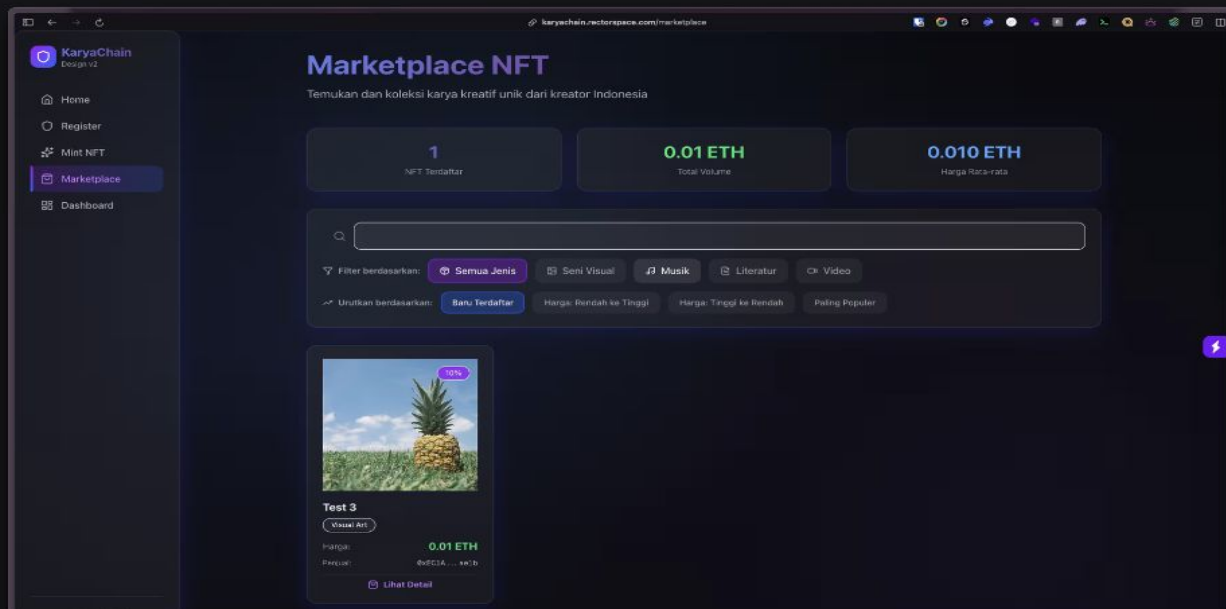
Secure Purchasing

Web3 wallet integration with automatic royalty distribution



Full Transparency

View transaction history and ownership on Etherscan



Enterprise-Grade Technical Stack

Built for scale, security, and performance

Architecture Flow

Next.js Frontend



RainbowKit + wagmi



3 Smart Contracts



IPFS Storage

</> CopyrightRegistry

100% coverage • 19 tests

- Asset registration
- Ownership verification
- Timestamp proof

</> KaryaNFT

ERC-721 + ERC-2981

- NFT minting
- Royalty standard
- Copyright linkage

</> KaryaMarketplace

2.5% platform fee

- NFT listings
- Secure purchases
- Auto royalties

Technology Stack

Blockchain

Ethereum Sepolia

Web3 Integration

wagmi v2 + RainbowKit

Smart Contracts

Solidity 0.8.20

Storage

Pinata IPFS

Frontend

Next.js 14 + TypeScript

Testing

Hardhat + 90 tests

Built for Production: Security & Quality

Enterprise-grade testing and auditing standards



100% Test Coverage

90 comprehensive tests across all contracts

90 tests



Slither Security Audit

Professional security analysis with zero critical issues

0 critical



ReentrancyGuard

Protection against reentrancy attacks on all transfers

Protected



Etherscan Verified

All contracts verified with public source code

Verified



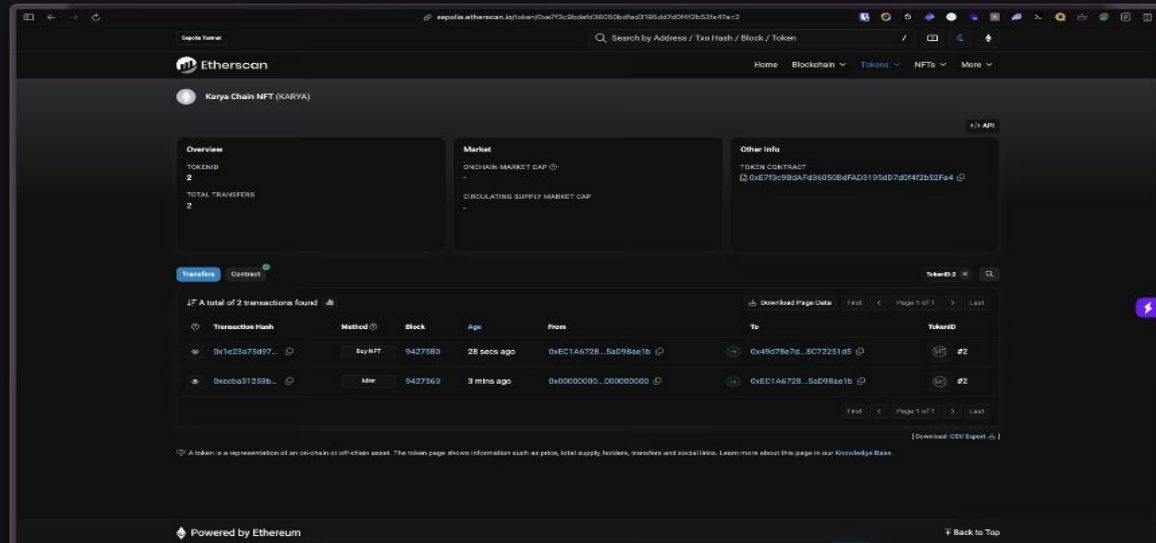
100% Blockchain Integration

5 custom wagmi hooks, no mock data anywhere



Production-Ready UX

Mobile responsive, glassmorphism design, skeleton loaders



What Makes KaryaChain Unique?

Five key innovations that set us apart



First for Indonesia

63M+ creators

63M+ creative workers, bilingual support (Bahasa + English)



Perpetual Royalties

Forever

ERC-2981 standard ensures creators earn on every resale, forever



5 Asset Types

5 types

Visual Art, Music, Literature, Video, and Other creative works



Complete Ecosystem

3-in-1

Registration + Minting + Marketplace in one unified platform



Beautiful Glassmorphism UX

Premium UX

Modern, intuitive design with responsive mobile experience



Built for Indonesian Creators

Empowering the creative economy through blockchain innovation



A Complete Platform That Prioritizes Creator Rights



Sustainable Revenue Model



Platform Fee: 2.5%

Applied to all marketplace sales

Industry-standard rate

Transparent, on-chain deduction

Revenue Projection Example:

Monthly Sales: 100 ETH

Platform Fee (2.5%): 2.5 ETH

Annual Revenue: 30 ETH (~\$60k)



Creator Benefits

✓ Perpetual Royalties (5-20%)

Set your own rate, earn on every resale

✓ Global Market Access

Reach international buyers, 24/7 marketplace

✓ Affordable Registration

Gas fees only (~\$0.50), no middlemen



Market Opportunity

63M+

Indonesia Creative Workers

200M+

Southeast Asia Potential

\$2.6T

Global Creative Economy

Roadmap: From Testnet to Ecosystem



Phase 1

✓ Current - October 2025

- ✓ 3 smart contracts deployed & verified (Sepolia)
- ✓ Full-stack dApp (100% blockchain integrated)
- ✓ 5 asset types supported
- ✓ 90 tests, 100% coverage
- ✓ Security audit passed



Phase 2

Q1 2026

- Deploy to Ethereum Mainnet or Polygon
- Creator onboarding campaign
- Partnership with Indonesian creator communities
- Mobile app development (React Native)



Phase 3

Q2-Q3 2026

- Multi-chain support (Solana, Base, etc.)
- AI-powered content verification
- Integration with Indonesian legal system
- Dispute resolution mechanism



Phase 4

Q4 2026

- Expand to Southeast Asian markets
- Localization (Thai, Vietnamese, Filipino)
- Institutional partnerships (galleries, studios)
- Creator education programs

Long-term Vision

Become the **standard for copyright protection in Indonesia**, bridge Web2 creators to Web3, and enable economic empowerment for **63M+** creative workers

Empowering Indonesia's Creative Economy



Economic Empowerment

- 63 million+ creative workers gain affordable copyright protection
- Democratize IP rights (not just for big corporations)
- Enable micro-creators to monetize their work



Global Market Access

- Indonesian creators can sell to international buyers
- Remove geographic barriers
- Compete on global Web3 marketplace



Strengthen IP Culture

- Educate creators about copyright importance
- Build IP-aware creative community
- Reduce piracy through easy registration



Align with National Goals

- Support OJK's digital financial innovation vision
- Contribute to Indonesia's creative economy GDP (8%+)
- Foster blockchain adoption in creative sector

Real-World Impact

If just 1% of 63M creators use KaryaChain:

630,000

Creators Protected

\$300,000+

Saved in Registration Fees


Millions

In Royalties Earned

Try KaryaChain Today

Experience the Platform Live:

karyachain.rectorspace.com

 Launch Live Demo

What You Can Do:

✓ Connect Wallet

✓ Register Copyright

✓ Mint NFT

✓ Explore Marketplace



github.com/RECTOR-LABS/ojk-ekraf-hackathon



Team: RECTOR

Join us in empowering Indonesia's creative economy! 🇮🇩