

Cardano

HACKATHON ASIA

IBW Edition 2025

Innovation
partner

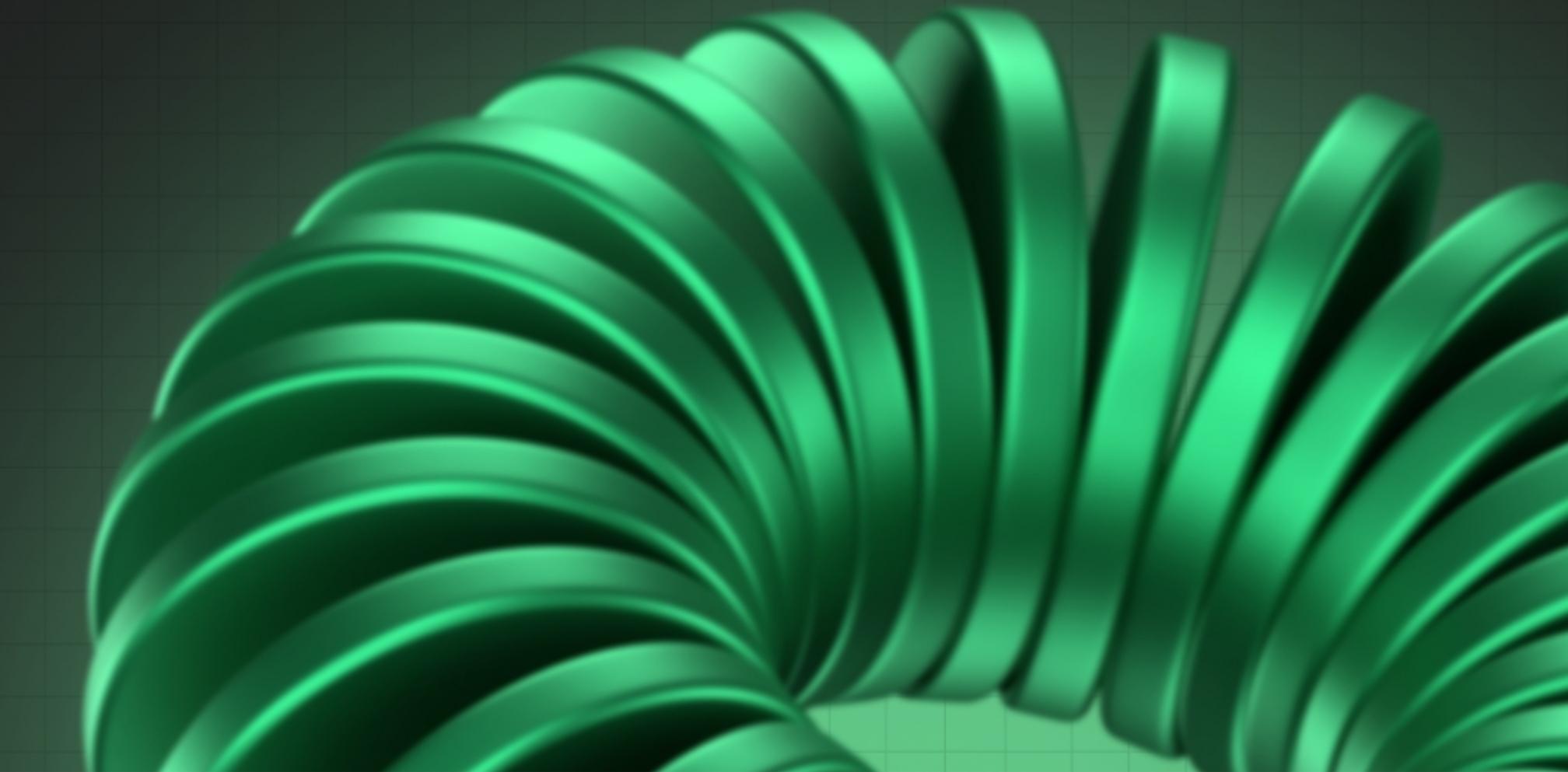
H2S
HACK2SKILL

**Advance your ideas at
India blockchain week**

Team Name : Binary Verse

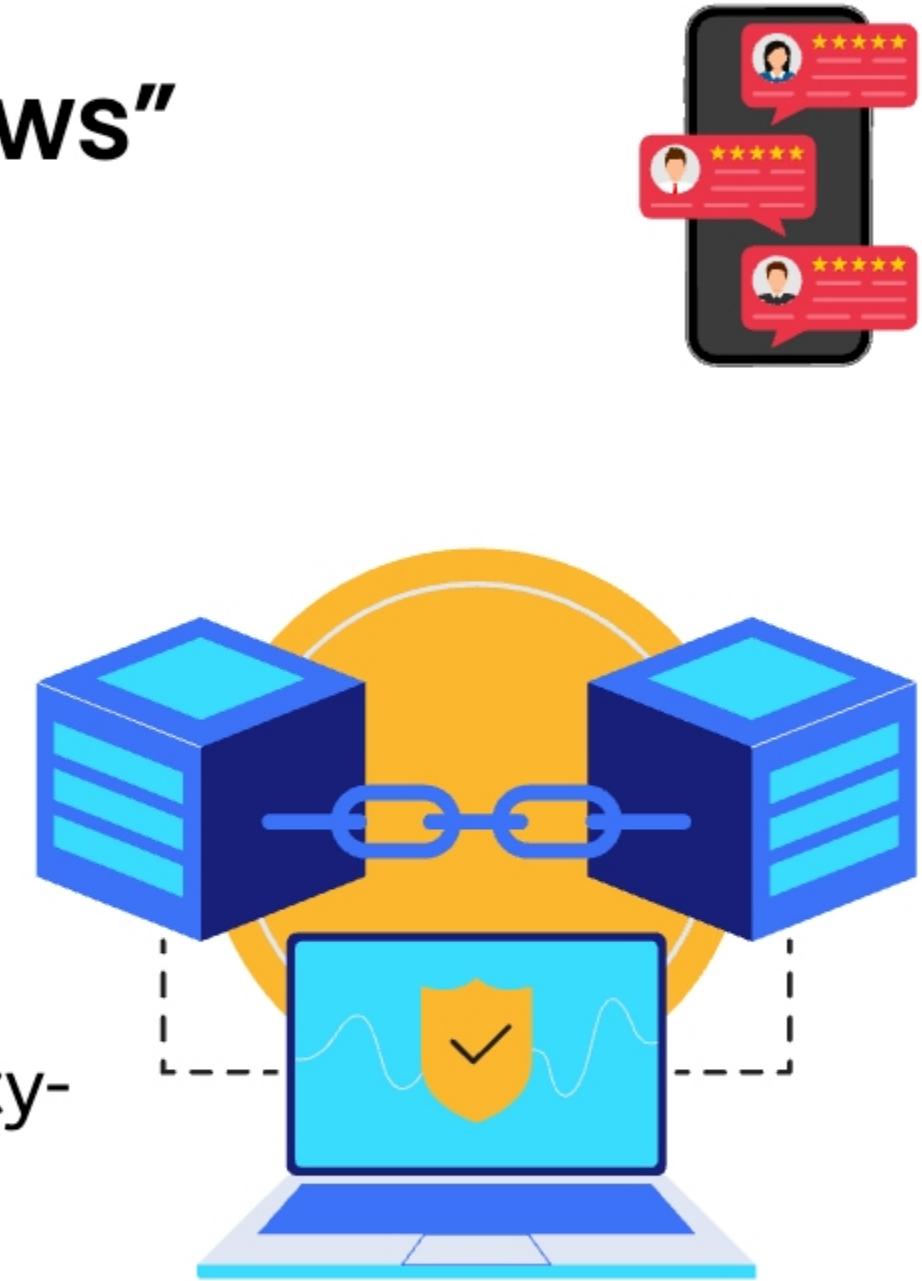
Team Leader Name : Anton P

Problem Statement : Track 1- General



Decentralized Review System – “TrustChain Reviews”

- TrustChain Reviews is a **decentralized review ecosystem** built on the **Cardano blockchain**, ensuring transparency, authenticity, and fairness in online feedback.
- Every review is stored immutably on-chain, linked to a **verified wallet identity (DID)** – preventing fake, paid, or deleted reviews.
- Smart contracts manage **review submission, verification, and rating aggregation**, ensuring **trustless and tamper-proof data**.
- A **token-based reward system** encourages genuine reviews and community-based verification.
- Businesses can build **transparent brand reputations**, and users retain **ownership of their opinions**.
- The project aims to **strengthen consumer trust** and **promote real-world Cardano adoption** in e-commerce and service industries.



Opportunity & Uniqueness of the Solution – “TrustChain Reviews”

“

⌚ How It's Different

- Reviews are stored permanently on the Cardano blockchain, so they can't be edited or deleted.
- Verified wallet identity (DID) ensures only real users can post reviews.
- Community verification replaces corporate moderation for true transparency.

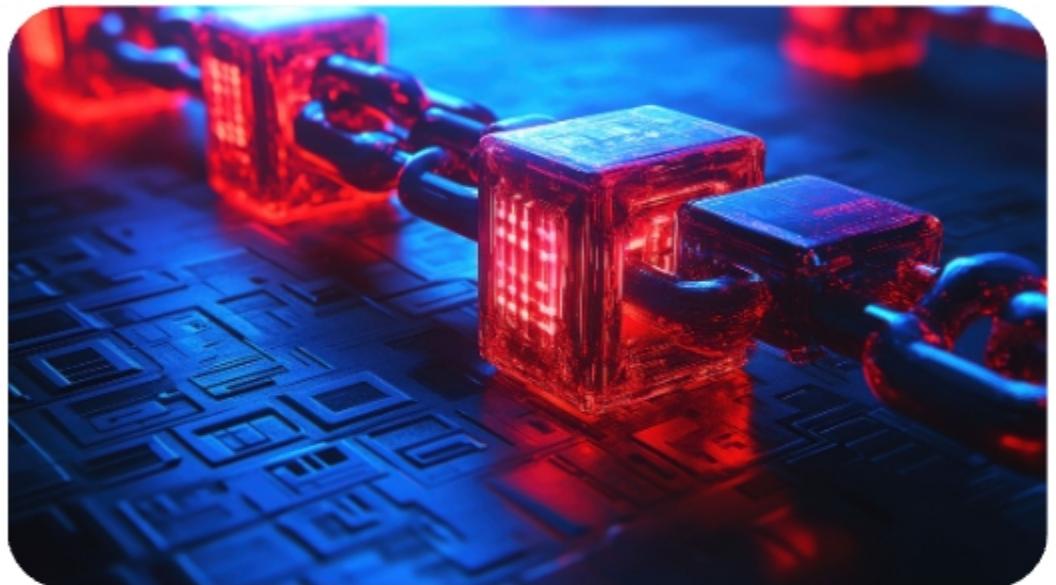


“

✳️ How It Solves the Problem

- Eliminates fake and biased reviews using blockchain-based authenticity.
- Builds trust by keeping every review publicly verifiable.
- Smart contracts reward honest reviewers and penalize spam automatically.

”



“

⭐ Unique Selling Proposition

- Fully decentralized and user-owned review system.
- Transparent, tamper-proof feedback for businesses and consumers.
- Promotes real-world Cardano adoption through everyday web use.

”

List of Features Offered by the Solution – “TrustChain Reviews”

★ Core Functional Features

- **User Wallet Login:** Secure onboarding using Cardano wallets.
- **Submit Reviews On-Chain:** Each review and rating stored immutably on the Cardano blockchain.
- **Verified User Identity:** Uses DID to prevent fake accounts.
- **View & Filter Reviews:** Users can view genuine, blockchain-verified reviews by product, service.
- **Community Verification:** Other users can upvote or flag reviews to maintain trust and accuracy.

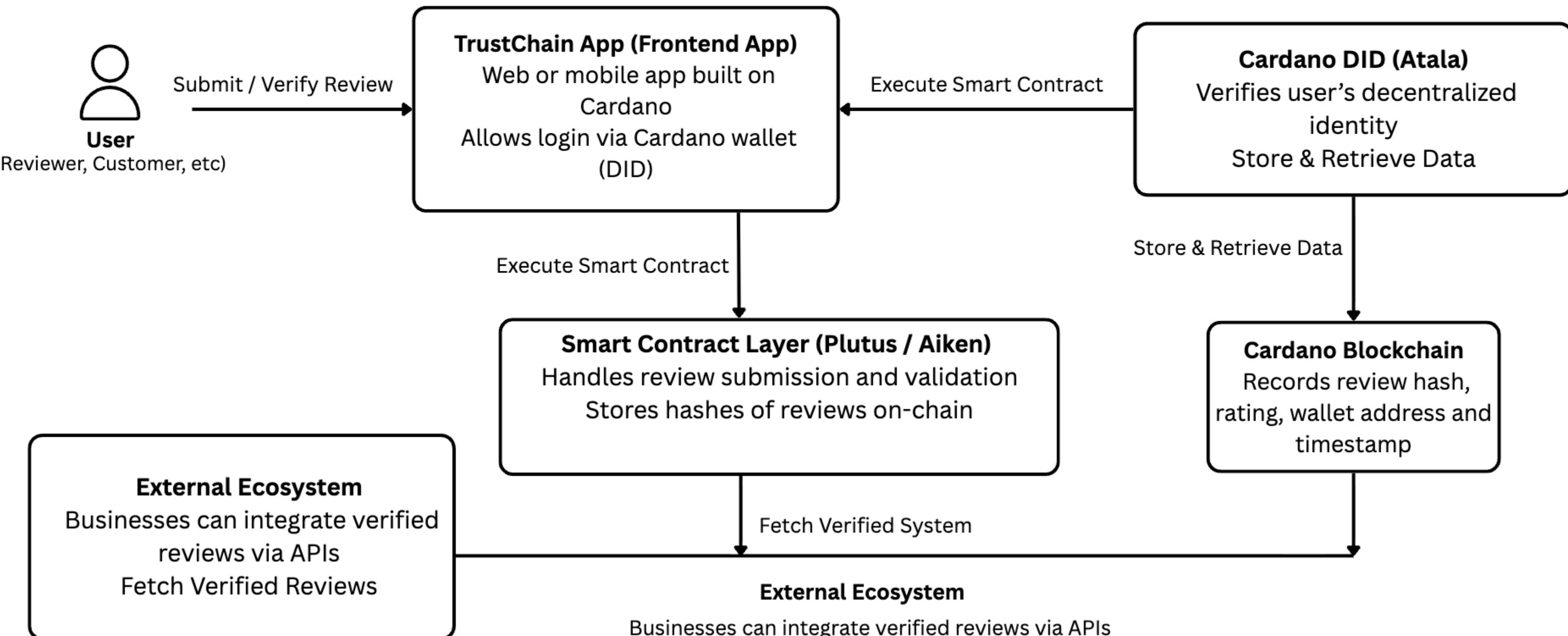
\$ Reward & Reputation System

- **Smart Contract-Based Rewards:** Honest reviewers earn tokens automatically after community validation.
- **Reputation Points:** Reviewers build on-chain credibility based on accuracy and engagement.
- **Anti-Spam Logic:** Smart contracts block duplicate or manipulated reviews.

✚ Technical & Integration Features

- **IPFS Integration:** For optional storage of images or large review data.
- **Public Transparency Dashboard:** Shows verified reviews and trust metrics in real-time.
- **API Support:** Businesses can integrate blockchain-verified reviews directly into their websites.

Process flow diagram – “TrustChain Reviews”



Wireframes – “TrustChain Reviews”

**TrustChain Verified
Reviews (Cardano-
Powered)**

Trucl ★★★★ Rateng
4.6 (verified reviews)

★★★★★ addr1.8s
Product quality is excellent!"

★★★★★ addr1.3s
Received genuine item.

★★★★★ addr1.5d
Delivery was late."

[View On-Chain Proof](#)

Blockchain-verified review
widget embedded directly on
third-party platforms

Connect Cardano Wallet

Lace Eterni Flint

Connect Cardano Wallet

Product
iPhone 15

★★★★★

Type your honest review...

[Submit On-Chain Review](#)

Users submit reviews using their
Cardano wallet – ensuring DID-
based identity and authenticity

**TrustChain Review
Explorer**

Product
iPhone 15

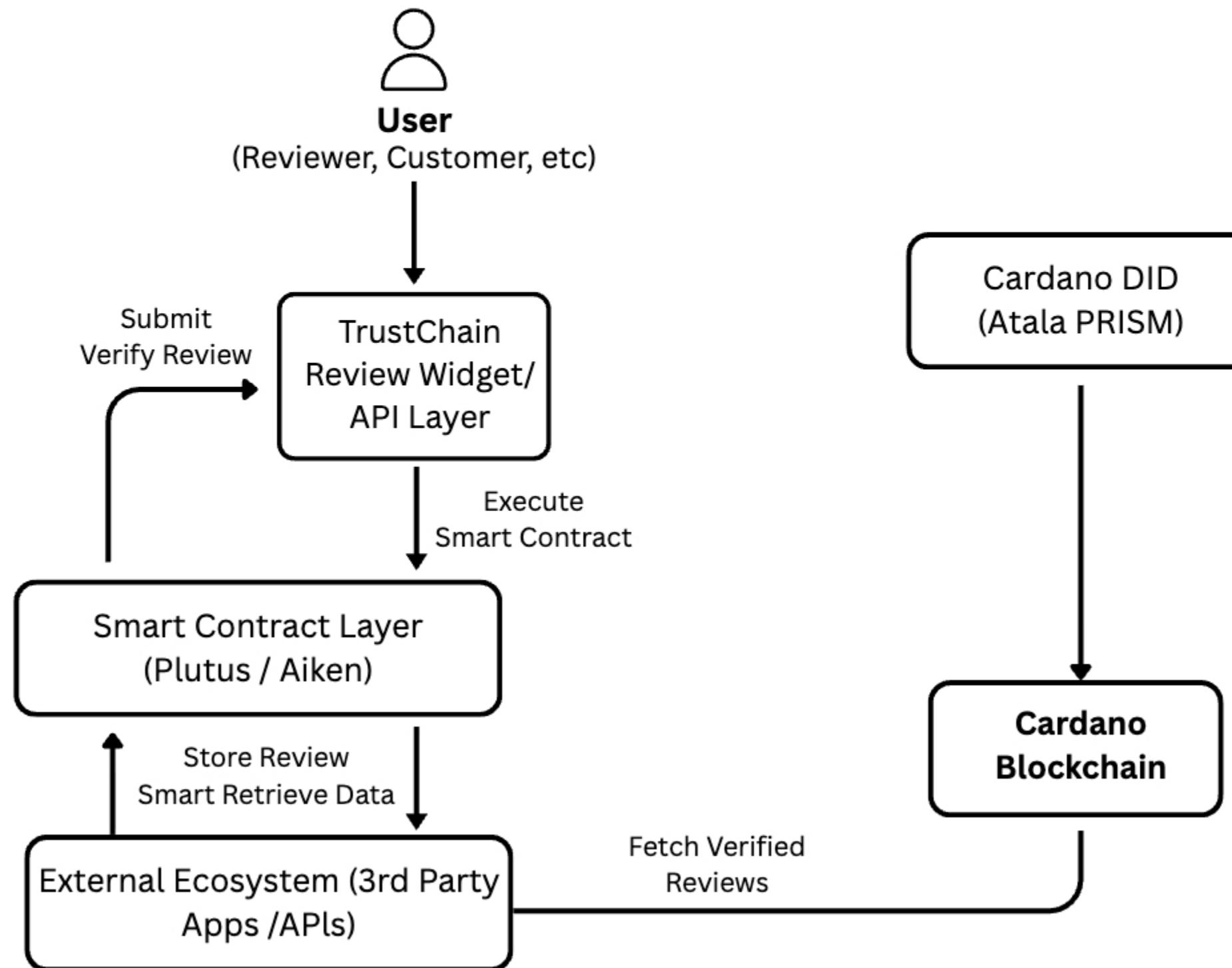
✓ Review Verified
on Cardano

Reviewer Wailet addr1q...fjh
Rating ★★★★☆
Review Hash 0xA43F..9882
Timestamp 14 Nov 2025, 10:30 PM

[View Transaction on
CardanoScan](#)

A public blockchain explorer shows
full transparency of every review

Architecture Diagram – “TrustChain Reviews”



Technologies & Blockchain Integration – “TrustChain Reviews”

★ 1. Technologies Used in the Solution

Frontend

- HTML, CSS, JavaScript
- Embedded Review Widget (React.js)
- Cardano Wallet Connector (Lace, Eternl, Flint)

Backend

- Node.js
- API Gateway for integrating with third-party apps
- Review submission & verification service

Blockchain

- Cardano
- IPFS

🔒 2. Midnight Integration

- Uses Compact language to generate ZK proofs
- Verifies user uniqueness without revealing identity
- Prevents duplicate reviews while keeping reviewer private
- Proof is passed to Cardano contract for validation

🔗 3. Cardano Usage

- Stores review hash, rating, timestamp, wallet DID
- Smart contract validates reviews and rewards
- Enables transparent, tamper-proof review records
- Public verification via CardanoScan

Cardano

HACKATHON ASIA

IBW Edition 2025

Innovation
partner

H2S
HACK2SKILL

Thank
you

