Certificate Verification Portal

A Blockchain-Based Solution with Admin-Controlled Features.

The Verification Challenge

The Problem

Traditional verification is often slow and prone to fraud.

Manual processes lead to delays and costs.

Vulnerabilities

Centralized databases are vulnerable to tampering.

Lack of transparency makes it hard to verify authenticity.

Our Solution: Decentralized Verification

1 **DApp**

Built on blockchain for secure management.

2 **Data**

Leverages blockchain's immutability and security.

3 **User-Friendly**

Next.js provides a modern interface.

Functionality: Certificate Holders

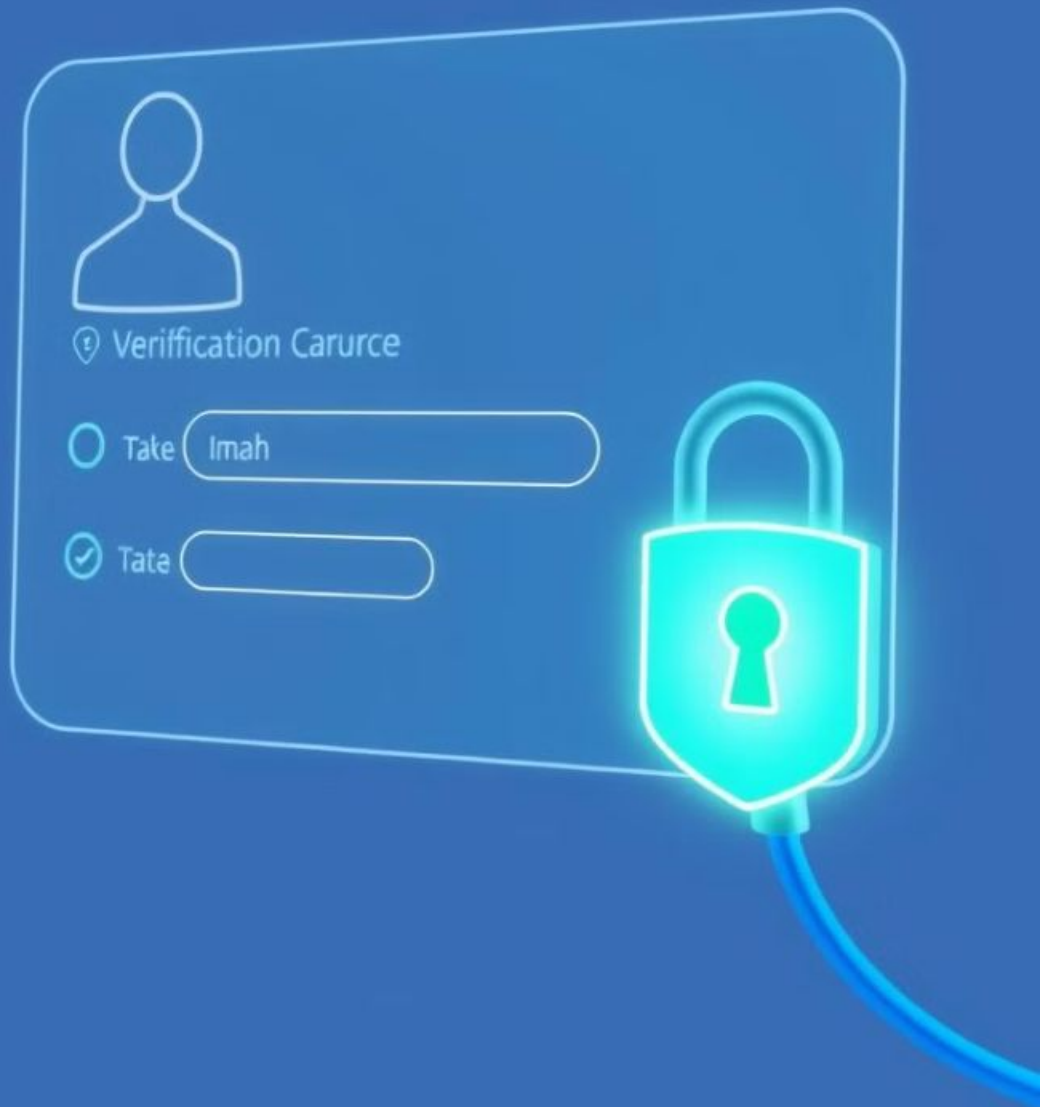Securely upload certificates on the blockchain.

Generate verifiable credentials to share.

Maintain control over data and revoke access.

Functionality: Verifiers

1 **Instant Verification**

Verify certificates in real-time with blockchain technology.

2 **Enhanced Efficiency**

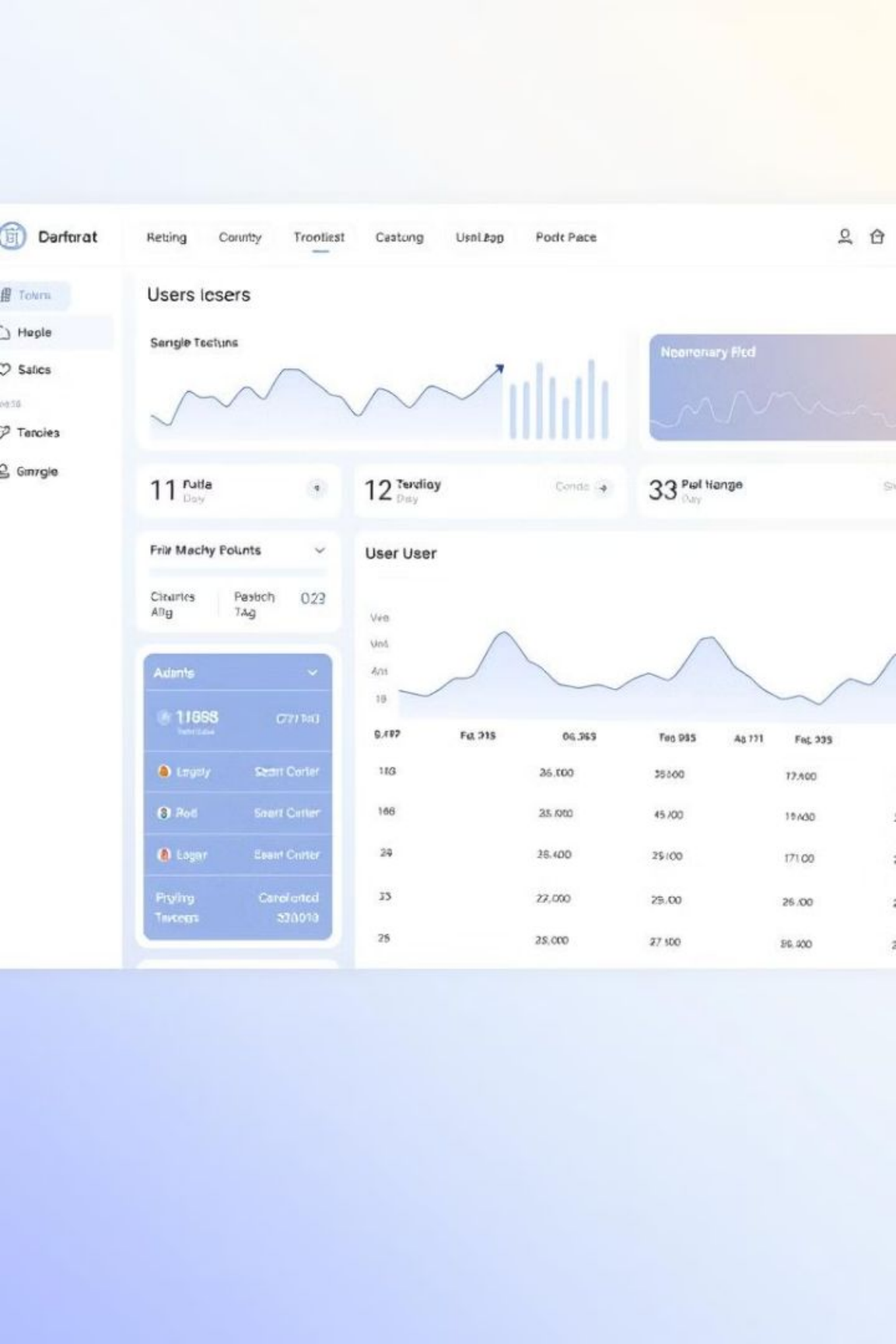Reduce manual workload with automated verification processes.

3 **Minimize Fraud Risk**

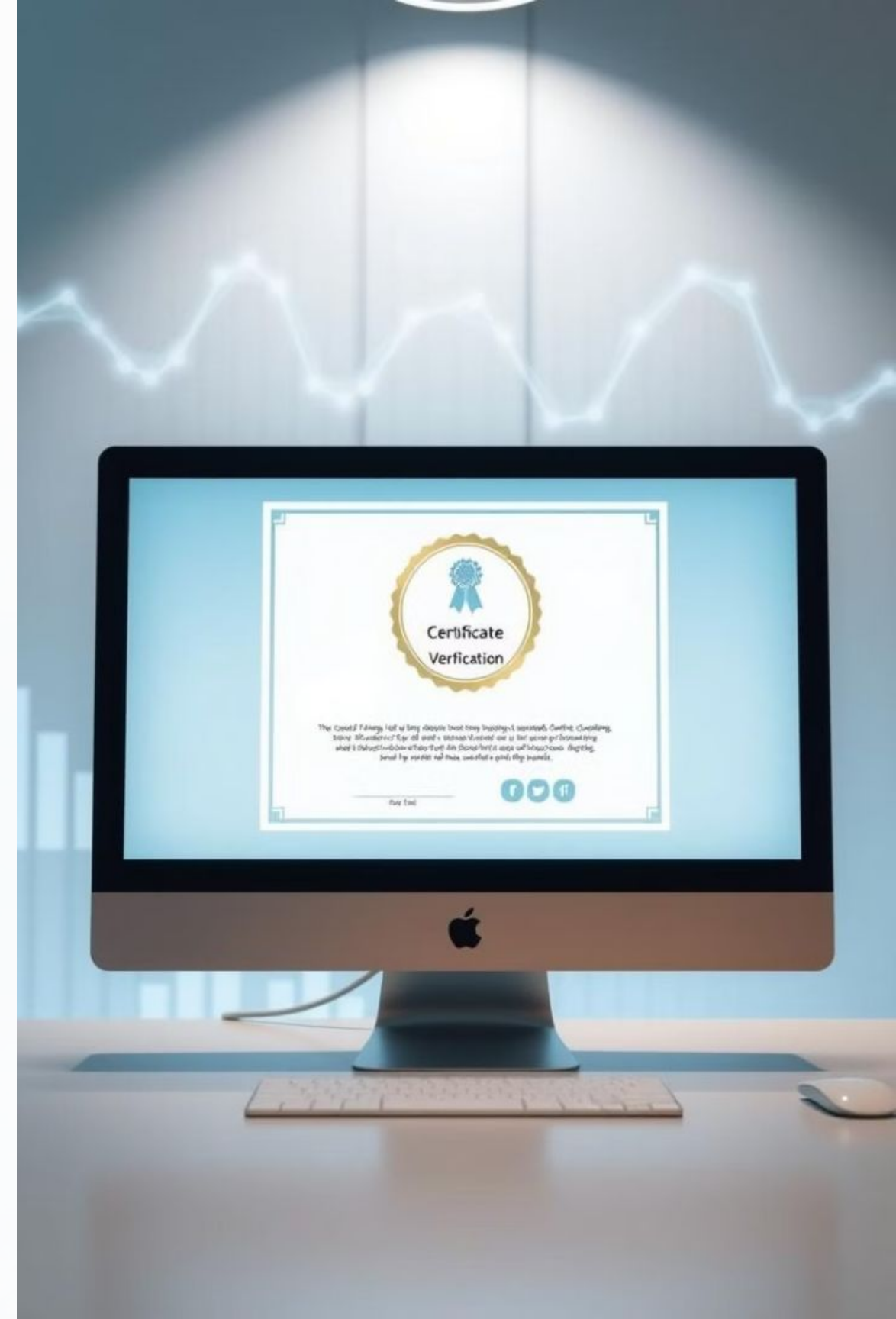Significantly lower the potential for accepting falsified credentials.

Admin Roles and Privileges

1   **Add Certificate**

2   **Remove Certificate**

3   **Add Issuer**

4   **Remove Issuer**

5   **Add Admin**

6   **Remove Admin**

As an admin, you have full control over the certificate verification system. Use these tools to manage the issuers, certificates, and other administrators on the platform.
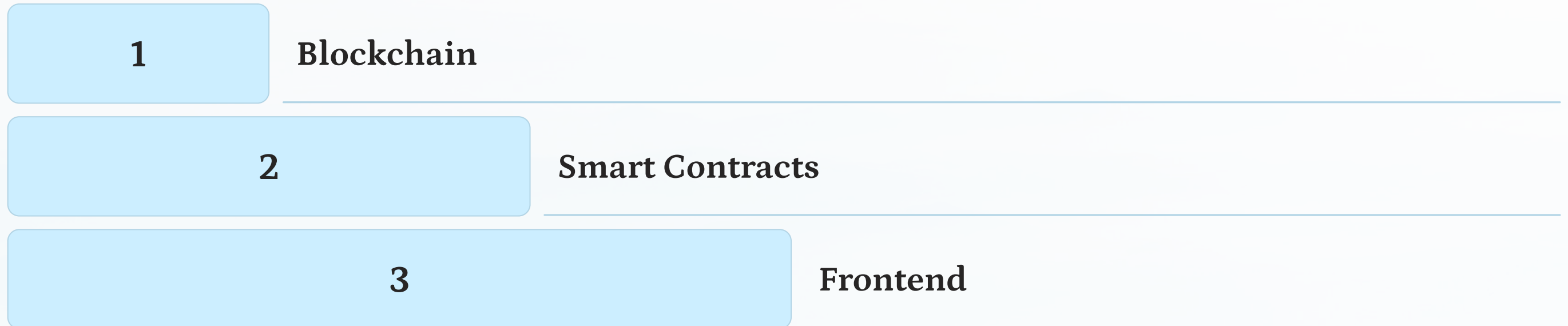
User Access

○ Enter Student Id

○ Get ByteCode Against Student Id

○ Put ByteCode to Verify the Certificate

Tech Stack and Architecture

1   **Blockchain**

2   **Smart Contracts**

3   **Frontend**

BNBTESTNET for security. Solidity defines contract logic. Next.js for a user-friendly interface.

The Future of Certificate Verification

1 **Enhanced Security**
Blockchain-based security.

2 **Streamlined Process**
Automated verification.

3 **Global Accessibility**
24/7 verification.

Thank You

We hope this presentation has given you a clear understanding of our blockchain-based certificate verification portal.

For further inquiries, please reach out to our team.