

Decentralized Scholarship Management System

Capstone Project Name: ScholarTrust

Value Proposition: ScholarTrust is a blockchain-based platform that ensures fairness, transparency, and accountability in the management and disbursement of scholarships. We allow students to apply for scholarships, track the status of their applications, and receive funds directly, all while maintaining an immutable, auditable record of every transaction. It eliminates corruption, delays, and favoritism in scholarship disbursement, ensuring that funds reach the intended beneficiaries in the right amounts.

Target Users (Nigeria):

1. Students (secondary and Tertiary Institutions).
2. Funders.
3. Validators.

User Stories:

User Persona 1

- **Name:** James Ebuka
- **Role:** High-achieving student from a low-income background.
- **Goal:** Secure funding for his education.
- **User Story:** As a student, I want to apply for scholarships by providing my details and documents so that I can receive funding to pay for my tuition.

Acceptance Criteria:

- **Functionality:**
 - A simple and intuitive application process that includes filling out required forms and submitting supporting documents.
 - Tracking submitted applications and their statuses (pending, approved, and rejected).
- **Attributes:** Student profiles should include attributes like name, educational institution, proof of need, and academic records.
- **User Interaction:** Students should see a dashboard showing their application status and funds received.

Priority: High

Technical Notes:

- **Dependencies:** The program depends on file storage solutions like IPFS for document uploads.
- **Considerations:** Need to implement a system to verify documents and ensure storage is secure and decentralized.

User Persona 2

- **Name:** Rita Bwala
- **Role:** Physically disabled student from a low-income background.
- **Goal:** Fair and discrimination free scholarship process.
- **User Story:** As a student, I want to apply for scholarships and receive full funding of the promised pay for my tuition without discrimination. Over the years, I only receive 40% of the promised pay and after seeking for explanations, I was completely ghosted.

Acceptance Criteria:

- **Functionality:**
 - Tracking submitted applications and their statuses (pending, approved, and rejected).
 - Making sure the processes are Tamper proof.
 - Equal Disbursement of funds with proofs.
- **Attributes:** Student should be able to track view and track application status.
- **User Interaction:** Students should see a dashboard showing their application status and funds received.

Priority: High

User Persona 3

- **Name:** Dr. Mike David
- **Role:** Funder

- **Goal:** Funding Scholarship boards to fund students and tracking how the funds are being utilized.
- **User Story:** As a sponsor, I want to fund students in universities so that I can directly contribute to their education and also see how my funds are being used so that I know the funds are not mismanaged.

Acceptance Criteria:

- **Functionality:**
 - The platform should allow sponsors to fund with Sol.
 - See verified Students.
 - Track how funds are moved and supplied to students.
- **Attributes:** Sponsor contributions should be tracked.
- **User Interaction:** Sponsors should receive updates about how their funds are being utilized and see proof of spending (e.g., tuition receipts).

Priority: High

Technical Notes:

- **Dependencies:** Use Solana smart contracts for transparent fund management and on-chain receipts.
- **Considerations:** Ensure the system supports easy refunds if a sponsor changes their mind.

User Persona 4

- **Name:** Mrs. Sarah Patrick
- **Role:** Scholarship Admin
- **Goal:** Review and approve student applications to maintain the platform's integrity.
- **User Story:** As an administrator, I want to review student profiles and approve valid applications so that only eligible students receive scholarships.

Acceptance Criteria:

- **Functionality:**

- The platform should allow admins to review submitted documents, validate their authenticity, and approve or reject applications.
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- **Attributes:** Each application should include verification status (pending, approved, and rejected).
- **User Interaction:** Admins should have a dashboard to view pending applications and mark them as approved or rejected.

Priority: Medium

Technical Notes:

- **Dependencies** Smart contracts for creating, managing, and disbursing scholarships.
- **Considerations:** Admin actions should be logged on-chain for transparency and accountability.