DigiTrust: Child Digital ID

Team Structure

1. **Team Lead**:
   Kate Kumwenda
   - Oversee the project's strategy, technical roadmap, and stakeholder engagement.
2. **Digital Literacy and Child Safety Specialist**:
   Chimwemwe Kalima
   - Advocate for children's needs, ensure digital literacy components are child-friendly, and manage external communication with stakeholders like UNICEF.
3. **Technical Developer**:
   Andrew Sitima
   - Lead the technical design, development, and integration of blockchain and ZKP solutions.
4. **Data Integrity and Information Systems Manager**:
   Mercy Cian Banda
   - Oversee data integrity, ensure secure data storage, and monitor information flows for mis/disinformation.
5. Blockchain Developer
   - Thom

What need or challenge is DigiTrust solution addressing in Malawian local context

The DigiTrust solution addresses the critical challenge of safeguarding children in Malawi's digital environment, where internet penetration is growing rapidly. With 19.1% internet penetration in 2023 and a significant proportion of users being youth under 24 years old, many children in Malawi face risks such as cyberbullying, identity theft, and exposure to harmful online content. This issue is exacerbated by limited digital literacy and weak regulatory mechanisms.

DigiTrust provides a blockchain-based **child digital ID** with **Zero-Knowledge Proofs** to ensure secure authentication and privacy. For example, a child using social media can verify their identity safely without exposing personal data, reducing risks of online predators and fake profiles. Additionally, the platform empowers children and caregivers with tools to understand digital trust, enhancing their resilience against misinformation and fraud. DigiTrust aligns with Malawi's need for secure digital systems that protect its youngest citizens as they navigate the online world.

Describe the DigiTrust and how it is solving the challenges to a Malawian Child

DigiTrust is a blockchain-powered solution designed to safeguard Malawian children in digital environments. It introduces a **Child Digital ID**, leveraging **Zero-Knowledge Proofs (ZKP)** to authenticate identities securely without revealing sensitive information. This ensures that children can interact online safely, protecting their privacy and security. In Malawi, where internet usage among youth is growing rapidly, children face numerous digital risks, such as cyberbullying, exploitation, and exposure to harmful content. DigiTrust addresses these challenges by providing a trusted system that verifies age and identity, preventing unauthorized access to social media platforms and online spaces meant for children. For instance, DigiTrust can block predators from impersonating children or accessing private groups.

Additionally, the platform educates children about digital trust, equipping them with the skills to navigate the internet responsibly. By enhancing online safety and promoting digital literacy, DigiTrust creates a secure and empowering digital environment for Malawian children.

How DigiTrust is using the blockchain

DigiTrust leverages **blockchain technology** to provide a secure, decentralized, and transparent system for managing **Child Digital IDs**. The blockchain ensures that all

identity data is stored in a tamper-proof ledger, safeguarding against unauthorized alterations or breaches. Using **Zero-Knowledge Proofs (ZKP)**, DigiTrust allows children to authenticate their identity online without revealing personal details, preserving their privacy while proving their legitimacy.

In the Malawian context, where digital safety concerns are growing, blockchain enables DigiTrust to provide a reliable solution for verifying identities in environments like social media platforms or e-learning systems. For example, a child's DigiTrust ID can confirm their age to access age-appropriate content, ensuring compliance with digital safety regulations. Furthermore, blockchain's decentralized nature eliminates reliance on a single authority, reducing vulnerabilities to hacking and misuse. This innovative use of blockchain ensures a safer and more trustworthy online experience for Malawian children.

DigiTrust Project Targets/Milestones (12 Months)

A. **Prototype Development (Months 1-3):**
   Build and launch a functional **Child Digital ID prototype** using blockchain and Zero-Knowledge Proofs. Ensure it includes core features like secure authentication and privacy-preserving identity verification.
B. **Pilot Testing (Months 4-6):**
   Conduct pilot programs in 3 selected Malawian schools, engaging 500+ children to test the ID's functionality in online education and social media settings. Collect feedback to refine the system.
C. **Awareness Campaigns (Months 5-7):**
   Partner with local organizations to run **digital trust education workshops**, reaching 5,000 children and 1,000 educators. Focus on safe internet usage and the benefits of DigiTrust.
D. **Stakeholder Engagement (Months 6-9):**
   Collaborate with UNICEF, government bodies, and tech partners to align DigiTrust with national child protection frameworks.

E. **Scaling & Evaluation (Months 10-12):**
Expand DigiTrust to 20 schools and enhance features based on pilot insights. Publish an impact report showcasing DigiTrust's role in advancing children's online safety.

1. **Key Partners**:
    - **Local Schools in Malawi**: Collaborating with select schools for pilot testing and implementation of DigiTrust.
    - **Government of Malawi (Ministry of Education & ICT)**: Engaging with relevant ministries to align the solution with national child protection and digital literacy goals.
    - **Local Child Advocacy Organizations**: Partnering with NGOs focused on child rights and digital safety for awareness campaigns and outreach.
    - **Community-Based Organizations**: Assisting with grassroots-level engagement and feedback collection during pilot programs.
2. **Advisors**:
    - **NA**: As the project is in its early stages, no formal advisors are currently onboarded.

We aim to expand partnerships by involving international organizations like UNICEF and experts in blockchain, child psychology, and education technology as the project progresses.

Overview of Capital and Contributions

1. **Capital**:
    - **Seed Funding**: Initial funding of **US$100,000** sought from the UNICEF Venture Fund to cover prototype development, pilot testing, awareness campaigns, and scaling efforts.
2. **Human Resources**:
    - A dedicated team of four members:

- **Kate Kumwenda**: Project lead and blockchain specialist.
- **Andrew Sitima**: Technical developer for blockchain integration.
- **Chimwemwe Kalima**: Digital literacy advocate and outreach coordinator.
- **Mercy Cian Banda**: Data integrity and system management expert.

3. **Assets**:
    - Access to local schools and community centers for pilot programs.
    - Personal computing equipment provided by team members.
4. **Other Investments/Loans**:
    - **NA**: Currently, no external loans or private investments have been secured.

The project relies on a lean operational model, leveraging existing expertise and partnerships to maximize impact.