



Siyazalana

Lineage Mapping & African Heritage

“Digitally Preserving African Heritage”

Abstract

Siyazalana: Lineage Mapping addresses a critical business requirement faced by many African families: the lack of accessible, reliable, and culturally grounded genealogical records. Generations of disrupted record-keeping caused by colonialism and displacement have left families unable to trace lineage beyond a few generations, weakening cultural identity and hindering the transfer of intergenerational wealth. Existing genealogy platforms are foreign-owned, culturally insensitive, and fail to support African household structures, clan systems, or oral storytelling traditions.

Our proposed solution is a secure, user-friendly web platform that empowers African families to digitally record, preserve, and grow their family histories. The system enables users to create verified personal profiles, build and join family trees, record life events, and contribute stories through multimedia uploads. It incorporates cultural mapping features such as clan names, praise names, and totems to ensure that the platform reflects authentic African heritage models. Additional modules for events and donations, enhance community engagement and collaboration.

The platform is designed as a cloud-hosted ASP.NET Core web application using Azure SQL Database for storage and Razor Pages for the front end. Its architecture follows a three-tier model, with strict role-based access controls, encryption of sensitive data, and integration with external APIs for tree visualization and payment processing. The design is responsive and supports multiple languages, with accessibility features like light/dark mode.

Key features include dynamic family tree visualization, multimedia storytelling, cultural structuring, profile verification, event management with donation support, and strong privacy compliance (POPIA). Early findings show that the system not only preserves heritage but also fosters stronger family unity and provides a digital archive for future generations.

In conclusion, Siyazalana demonstrates that technology can be a vehicle for cultural empowerment, offering African families ownership, security, and pride in preserving their lineage digitally.

Project Team

Akhona Mahlaba

Glen Nohaji

Jamie-Lee Schalkwyk

Kelebogile Moima

Supervisor

Zainab Ruhwanya



School of Information Technology
University of Cape Town
Private Bag X3
Rondebosch 7701
E-Mail: info-sit@uct.ac.za

