



Iya Bola Assistant App: Empowering Africa through Data-Driven Financial Inclusion

Dataverse Datathon 2025 Submission

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A – Validated Understanding of the Problem

Theme: Financial Inclusion – "Banking Iya Bolanle"

In Sub-Saharan Africa, only 49% of adults have a bank account. Millions remain excluded due to language barriers, digital illiteracy, and infrastructure gaps.

Significant disparities exist (6% in South Sudan to 91% in Mauritius).

The solution must address these main barriers:



Poor connectivity



Language exclusion



Limited device literacy



Distrust in digital systems



Low financial education

Key Statistics (2024–2025):

- Ghana's mobile money transactions hit GH¢1.9 trillion (↑78.7%) in 2023.
- Nigeria: ~38 million adults remain financially excluded (CBN 2023).
- Women and rural dwellers form
 >60% of the unbanked population.

Solution Overview: Inclusive financial assistant supporting text and optional voice input. It handles essential financial tasks and extended services (financial education, agriculture payments, school fee reminders). Designed for low-digital-literacy users with trust, usability, and accessibility in mind.

B - Elevator Pitch

"Iya Bola Assistant App is a multilingual, multimodal financial assistant designed to empower underserved African populations. It enables essential financial tasks—transfers, bill payments, airtime, micro-savings. It also provides financial education, real-time analytics, and a user-friendly interface for low-digital-literacy users."

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C – User Personas

• 💩 Iya Bola

Yoruba market woman with a voice-first preference for transactions.

• <a> Amina

Pidgin-speaking farmer who is semi-literate and needs simple budgeting.

• P Chinedu

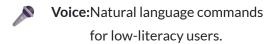
Tech-savvy student who is a bilingual digital native, testing advanced features.

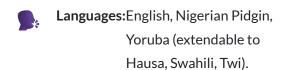
D – Inclusive Financial Assistant Blueprint

Concept: An AI-driven multilingual assistant providing inclusive financial access.

Interaction Modes:







Core & Extended Functions:

Core Transfers, Airtime/Data,
Financial:Bill Payments, MicroSavings.

Beyond Financial Literacy Tips,
Banking: Agricultural Payment
Integration, School Fee
Reminders.

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E – Key Features

Multilingual & Supports English, Pidgin, and Yoruba to reach underserved

Inclusive: communities.

Core Financial Transfers, bill payments, airtime/data purchases, and micro-

Tasks: savings.

Financial Education: Delivers tips and guidance for low-digital-literacy users.

Real-Time Live dashboard with intent & language analytics; CSV export for

Insights: further analysis.

Dashboard Insights (Sample Analytics):

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F – Prototype & Deliverables

The functional components delivered during the datathon include:

- 1 Streamlit Text + optional voice I/O,
 Chatbot multi-language support
 Prototype:(English, Pidgin, Yoruba),
 handling core financial
 and educational tasks.
- Real-Time Visualizes user intents

 Dashboard: and language usage with

 a CSV export function

 for advanced analysis.
- SampleMock data included toCSV simulate real userLog: interactions and demodashboard capabilities.
- Project Setup instructions and
 Overview & pitch summary included
 README: in the ZIP file.

G – Impact & Scalability

The solution is designed for adoption by banks, fintechs, telcos, and community organizations to increase financial inclusion in underserved regions.



Impact:

Fosters financial inclusion, improves business sustainability for microentrepreneurs, and promotes data literacy at the grassroots level.

Scalability:

The modular design allows for the rapid addition of new languages, financial services, and regional deployments.
Ensures privacy, trust, and high usability for low-digital-literacy users.

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H - Files Included in ZIP:

The `Datathon 2025.zip` file contains the following components:

- iya_bola_assistant_app.py
- iya_bola_assistant_app_MVP.py
- README.md
- sample_user_log.csv
- project_overview.txt

I – Future Upgrades

We have a clear roadmap for enhancing the app's capabilities post-datathon:

Smarter Al Add a GPT API backend to provide more natural, intelligent, and

Responses: context-aware responses and financial advice.

H

Permanent Integrate Firebase or SQLite for robust and permanent chat and

Data Storage: transaction storage, enabling long-term user history.

/

Advanced Enable data export to CSV for integration with Power BI, offering users

Dashboards: powerful, visual business intelligence dashboards.

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