**TECHNICAL DESIGN OF THE AMDT APPS.**

Inorder to accomdate the designs of the requirements, there should be a mobile app that will allow capturing of information remotely and a web app for controlling the master data and dashboards.

The mobile app will support both offline and online transactions by having failed records stored in the local db (SQLite) and later attempting to send them when internet is back.

Hence a strong synchronisation mechanism will be created to support this.

The Web app will have

1. A Dashboard

2. Master data management

The master data defined in the web app will be shared with other connecting clients such as the mobile apps via a web service.

This will allow mobile app users to make selections based on the options supplied by the web app.

**The web app will be built using**

Backend

1. Django Python3

2. Django Rest Service for the web service

Frontend

1. Angular 8

Database:

1. Postgres

**The mobile app will be built with:**

1. Android Java

**Modules to be built on the web App**

1. **Master data management**
   1. Create models for program beneficiaries, program staff and service providers
   2. Define services issued by programs
   3. Capture services issued by each program and the program beneficiaries
   4. Capture all transactions and activities
2. **User management**
   1. Apps security
   2. Authorisation and Authentication
   3. Encryption
3. **Core Operations**
   1. Data Validation during capturing
   2. Data Checks on existing data
   3. Encryption during data exchanges
4. **Dashboard**
   1. Create Reports
   2. Create Charts

**5. Web service**

**This will be used to share data between the web app and the mobile app seamlessly**