WORK PLAN STRUCTURE

(Mobile Development Team)

Introduction

We have been working on the mobile banking application for the last 5 weeks. With a well-documented workplan, the whole development process will be streamlined.

We will continue working as we initially were:
Lydia and Vincent: Handling the mobile application
Allen: Helping with the backend
Arthur: Working on the web portal

Methodology

As a team we will heavily employ spiral methodology. It will involve intense research as we develop the application. This will help to come up with a finished product much faster.

Work Structure

GOAL	OBJECTIVES	RESPONSIBILITY	STRATEGY
1.Database Design	Schedule a meeting with the SACCO team.	As a team we should broaden our knowledge on how a SACCO operates	In the meeting we aim to get a better understanding on the working of the SACCO We also want involve the team in the design of our database We also want to capture the most essential features of a SACCO
	Draft a database	Come up with the necessary tables required	Having a testing database will help us know what is feasible within the system
	Design the database that we would use for the project	We will use MySQL database for the implementation	The respective database was selected because the whole team is familiar with it
	Implement our database and have it running (locally)	The team will have a fully functional database running locally.	We will populate the databases with dummy data. This is for testing purposes and also to correct our bugs
2. UI (finalizing) In this segment, the mobile application is independent from the web portal	Web Portal	Linking the admin templates to the super admin templates	As of now the admin and super-admin templates are independent projects. We aim to connect the two as one and have one functional project.
		Improve on the administration dashboard	This will involve coming up with graphical representations on the user interface. It may include graphs, pie

			charts or bar graphs
		Correcting a few bugs and making minor adjustments	We will carry out testing to see if the system has errors or bugs
		Configure the project to a working database	I will connect the project to the MySQL database. This is to test if the system could interact with the database locally
		Remotely connect to the database	This will heavily involve integrating the system with APIs. As of now, we are still researching on rest API and ngrok to see how we can connect to the database remotely
	Mobile Application	Design the main activities User Interface and designing all the necessary pages	We will use the dribbble templates to get innovative designs We will also use justinmind prototype to come up with an effective design
		Implement the drafted designs	This will involve developing and coding the User Interface
		Polishing and making corrections where possible	This step will heavily involve testing and finding bugs. There will be unit testing – where each module is independently tested and integration testing -where all modules are tested as one functional unit.
		Linking the UI of the application with the database	Exposing the endpoints of the server side We want to be able to consume the data exposed by the server
3. Consuming API endpoints and other third-party applications	Token Bearer	We need the token bearers in the system. These are the tokens that will be used to invoke the APIs and make requests.	The bearer will act as security for the OTP requests generated Implementing the API will need further research as it's something that we have not done before
	OTP authentication	Finalize and fully implement the OTP authentication.	The team had started working on OTP but it is not fully functional (Especially on the server side) The One Time Password will be fully automated and should autogenerate on the user's application without any input
	Rest API	We use rest API to connect the database to the web portal and the web application	Rest API will enable all the components of the system that we have created to work as one They can effectively fetch and access data from the database
	Ngrok	We will use ngrok to expose our database remotely and be able to connect to it	Ngrok exposes local servers behind NATs and firewalls to the public internet over secure tunnels. It will enable us to connect to our services from anywhere
	MPESA API	We have to integrate mpesa	M-pesa offers vast integrations and we

	integration	to the system where the users can make withdrawals and savings	have to choose the relevant API This would ease the money transfer process as it is more reliable
	Bulk SMS	Implement bulk SMS in the system to communicate with the customers in case of any transaction	We have to automate the SMS to reach the customer when they transact with the system This includes OTP verifications which will be fully automated Bulk SMS will be more reliable as it will be channeled straight to the customer's mobile number
	Google Authentication API	We use this authentication APIs as levels of data encryption as the customer is interacting with the system	This Mobile Application deals with money and is highly sensitive We have to make sure that it not vulnerable to any sort of attacks by implementing API keys that will oversee all the activities that are done within it

Assumptions

1. We hold assumptions that during our research we will find even more features that need to be implemented in the system.
2. Research will also be a continuous activity. It will be carried out throughout the lifecycle of the project.