App Name:

AgriLoan Tracker – Ethiopia

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Main Use Case:

Farmer Abebe borrowed 5,000 ETB from ACSI at 10% interest for 5 months to buy fertilizer. He wants to track how much he has paid and how much is left.

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SCREEN STRUCTURE & COMPONENTS

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Screen1: Home

Purpose: Welcome screen and navigation.

Components:

Label: "AgriLoan Tracker – Ethiopia"

Button1: "አዲስ ብድር መዝግብ" (Add New Loan)

Button2: "የኔ ብድሮችን ይመልከቱ" (View My Loans)

Blocks:

Button1.Click → Open LoanForm

Button2.Click → Open LoanList

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LoanForm Screen: Add New Loan

Purpose: Enter loan details.

Components:

TextBox\_Lender: "Lender Name" → e.g., ACSI

TextBox\_Amount: "Loan Amount (ETB)" → e.g., 5000

TextBox\_Interest: "Interest (%)" → e.g., 10

DatePicker\_Start: "Start Date" → e.g., 2025-05-01

TextBox\_Months: "Repayment Duration (Months)" → e.g., 5

Button\_Save: "ያስቀምጥ" (Save)

Example Input:

Lender: ACSI

Amount: 5000

Interest: 10

Start Date: 2025-05-01

Months: 5

Blocks:

When Save clicked:

Calculate total repayment: amount + (amount \* interest / 100)

5000 + (5000 \* 10 / 100) = 5500

Store:

{

"id": "loan1",

"lender": "ACSI",

"amount": 5000,

"interest": 10,

"total": 5500,

"startDate": "2025-05-01",

"months": 5,

"paid": 0

}

Save to TinyDB tag "Loans" as list of loans

Navigate to LoanList

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LoanList Screen: View My Loans

Purpose: Show all saved loans.

Components:

ListView\_Loans (shows: ACSI – 5,500 ETB – 0 Paid)

Button\_Delete (optional)

Blocks:

On Screen.Initialize → Load TinyDB "Loans" and populate list

On List Item Click → Open LoanDetail for selected loan

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LoanDetail Screen: View + Update

Purpose: See details and record repayments.

Display:

Label: Lender: ACSI

Label: Total Loan: 5,500 ETB

Label: Paid: 0 ETB

Label: Remaining: 5,500 ETB

Components:

TextBox\_Repayment: "Enter Payment (ETB)" → e.g., 1000

Button\_Record: "የክፍያ መዝግብ" (Record Payment)

After 1st Payment:

Paid = 1000

Remaining = 4500

Blocks:

When Record clicked:

Get loan from TinyDB

Add repayment amount to paid

Update loan object and store again

Refresh screen data

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Bonus: Language Toggle

Use ListPicker\_Language to switch:

English

Amharic

Set labels dynamically based on selection.

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What You’ll Learn

How to use TinyDB for local storage

How to build a simple loan calculation logic

How to work with multi-screen apps

How to support local languages (Amharic)

How to build real-life apps for rural needs

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