G20 TechSprint 2025 – Demo Flow: Credit Asset Demo

This document describes the step-by-step user flow for the Credit Asset Demo prototype, built to address TechSprint Theme 2: Consumer-consented and secure credit data portability. The demo simulates the loan approval process for a cassava-producing farm, combining AI-driven yield prediction, decentralized identity, and federated benchmarking.

# 🧭 Step-by-Step Flow

## 1. Load the App

The user opens the Credit Asset Demo in a browser. The landing page displays two tabs: Borrower Dashboard (default) and Lender Review.

## 2. Connect Wallet

User clicks 'Connect Wallet' to establish identity using MetaMask. Wallet address is displayed. All other interactions remain locked until wallet is connected.

## 3. View Farm Performance

Upon wallet connection, sensor data for 'Farm 10' is loaded. The dashboard displays charts for soil moisture, temperature, and yield predictions.

## 4. Credit Score Display

The app computes a projected credit score based on the average of predicted yields using the formula: score = Math.min(Math.round(avgYield / 20), 100).

## 5. Consent to Share Data

The user must explicitly check the consent box before proceeding. This models GDPR-compliant, privacy-preserving data sharing.

## 6. Initiate Loan Request

Once consent is given, the 'Initiate Loan Process' button becomes active. Clicking it triggers the backend to simulate a loan request and sets the status to 'Pending Review'. The Lender Review tab is now unlocked.

## 7. Federated Comparison

In the Lender Review tab, the user sees a comparison of similar farms. FARM10 is highlighted. Filters allow sorting by region or asset type. Charts show yield vs. credit score correlations.

## 8. Authorize or Reject

The simulated lender can now either 'Authorize' or 'Reject' the loan. Upon authorization, a smart contract is triggered.

## 9. Smart Contract Release

If the predicted yield exceeds the contract threshold and user has consented, the contract releases funds. A confirmation message and transaction hash are displayed.

## 10. End Screen

After execution, the borrower dashboard displays a completion message and contact details for follow-up. A button allows restarting the demo.

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