

# QuickLoan Mobile Ethical Data Review

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## Governance Review Card

Section	Issue/Definition	Impact	Suggested Fix/Mitigation
<b>1. Data Quality Risk</b>	<b>Inconsistent Data Formatting:</b> Step 5 (Preprocessing) lacks schema enforcement, leading to "dirty" data (e.g., mismatched phone formats).	Inaccurate ML scoring results in "False Rejections" for qualified applicants, causing financial loss.	<b>Data Validation Layer:</b> Implement automated schema checks at Step 2 (API Gateway) to reject malformed data before it reaches the DB.
<b>2. Legal &amp; Compliance Risk</b>  <b>Classification: Sensitive</b>	<b>Lack of Lawful Basis:</b> Collecting GPS and contact lists without explicit consent violates <b>Ghana's Act 843 (Section 11)</b> .	Risk of heavy regulatory fines (up to 10% of revenue) and loss of operating license in Ghana.	<b>Consent Management:</b> Insert a mandatory "Opt-in" checkpoint at Step 1 to ensure a legal basis for processing and

			document the audit trail.
<b>3. Bias &amp; Fairness Risk</b>	<b>Proxy Discrimination:</b> Using GPS or device logs can act as a "proxy" for socio-economic status, unintentionally biasing the model.	Systematic exclusion of low-income or rural demographics, leading to ethical failure and reputational damage.	<b>Algorithmic Fairness Audit:</b> Conduct regular checks at Step 6 to ensure approval rates are consistent across different demographic groups.

#### 4. Storytelling / Reporting Recommendation

- **Metric to Monitor: Loan Approval Fairness Index (LAFI).** A composite score measuring the approval rate ratio between different demographic groups.
- **Visualization Type: Grouped Bar Chart.** Comparing "Application Volume" vs. "Approval Rate" across different regions.
- **Why It Matters:** It provides an immediate visual "red flag" to leadership if the "black box" algorithm starts discriminating against specific populations.

## Corrected Data Flow Diagram

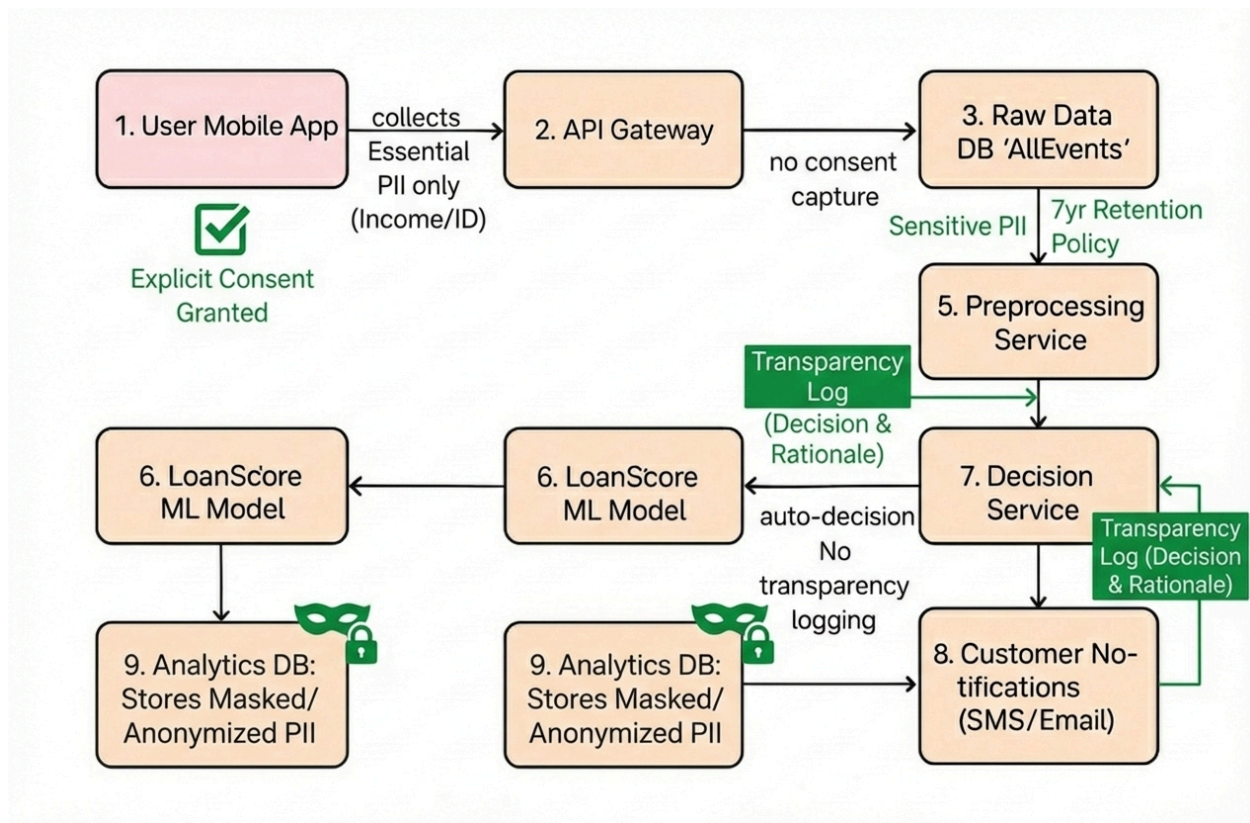
After reviewing the original diagram, here are the three essential corrections.

1. **Correction at Step 1 (The App): Implement Data Minimization.**
  - *Change:* Remove the "Contact List" and "Device Logs" collection.
  - *Why:* Under the **Principle of Minimization**, you should only collect data strictly necessary for the loan (e.g., identity and income).
2. **Correction at Step 2 & 3 (The Gateway): Add Consent Logging.**

- *Change:* Insert a "Consent Receipt" step.
- *Why:* To comply with **Act 843**, the database must store a record that the user actually clicked "I Agree" before their PII is saved.

### 3. Correction at Step 7 (Decision Service): Transparency & Explainability.

- *Change:* Add an "Explainability Log" alongside the notification.
- *Why:* If a loan is denied, the system must log why (e.g., "Income too low") so the company can provide transparency to the customer and auditors.



## Summary of Review Process

To conduct this review, I applied a **Data Lifecycle approach**, tracing the path of information from the moment of collection to its final use in analytics. By mapping this flow, I identified that the most critical failures occurred at the "Ingestion" and "Decision" stages.

Using **Data Classification** principles, I categorized the PII (Personal Identifiable Information) collected by QuickLoan—such as GPS and contact lists—as **Sensitive**. Under Ghana's Data

Protection Act (Act 843), Sensitive data requires a much higher standard of care, including explicit consent and a clear purpose. QuickLoan's current "collect everything" strategy creates a massive legal liability because they lack a lawful basis for processing such intrusive data.

The proposed **Loan Approval Fairness Index (LAFI)** is the key to ensuring ethical governance. Automated models can often become "black boxes" where bias is hidden in complex math. By forcing the system to report approval rates across different demographic segments (like region or age), we create **Algorithmic Accountability**. This metric transforms abstract ethical goals into a clear, actionable dashboard. It ensures that as QuickLoan scales, it remains transparent to its users and compliant with Ghanaian law, proving that "fast" micro-loans don't have to be "unfair" loans.