Functional Requirements Document (FRD)

Project: Banking Risk Analysis
Prepared By: [Pranay Mane]
Date: [11/07/2025]

1. Purpose:

This FRD defines the functional requirements for implementing a **Banking Risk Analysis solution**, using customer and transaction data to identify, measure, and manage risks related to **loans, fees, estimated income, credit card balances**, and other financial factors present in the Banking.csv file.

2. Functional Scope:

- Automate data extraction from customer and loan systems.

- Clean, validate, and transform data for analysis.

- Calculate risk scores for each customer based on:

    o Estimated Income

    o Loan Amount

    o Credit Card Balance

    o Fees Paid

    o Other demographic details (Age, Gender, Region if available)

Develop dashboards showing:

- Total loan exposure by segment

- High-risk customer lists

- Income bands vs. loan risk

- Fee revenue vs. loan risk

- Credit card balance anomalies

3. Functional Requirements:

ID	Requirement	Description
FR-1	Data Import	Import all fields from Banking.csv and core systems daily.
FR-2	Data Cleaning	Handle missing values, duplicates, and inconsistent formats.
FR-3	Risk Scoring Engine	Calculate credit risk score using weighted factors (income, loans, balances).
FR-4	Customer Segmentation	Group customers into risk bands for analysis.
FR-5	Dashboard & Visualization	Create interactive dashboards in Power BI with drill-downs by segment, income, and region.
FR-6	Alerts & Notifications	Notify risk managers of customers who cross risk thresholds.

	FR-7	Report Generation	Automated export of monthly risk reports (PDF/Excel).
	FR-8	User Access Control	Restrict access by user roles (Risk Manager, Analyst, Compliance).
	FR-9	Audit Trail	Record all changes to data models and risk scores.

4. Non-Functional Requirements:

- **Performance:** Dashboards must load within 5 seconds for standard queries.

- **Security:** Data encryption in transit and at rest.

- **Compliance:** Must adhere to banking data privacy laws (GDPR, RBI guidelines).

- **Scalability:** Support addition of new data sources and fields.

- **Availability:** System uptime 99.9% during working hours.

5. Assumptions:

- Source data is accurate and updated daily.

- Users will have required Power BI licenses.

- IT team provides secure storage and processing infrastructure.

6. Dependencies:

- Core Banking Systems
- CRM & Loan Origination Data
- Power BI for visualization

7. Approvals:

Role	Name	Signature	Date
Project Sponsor			
Business Owner			
IT Lead			