📘 Use Case Document

Project Name: Banking Analytics: Loan Approval & Customer Churn Prediction
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✅ Use Case 1: Loan Approval Prediction

Field	Details
Actor	Loan Officer, Risk Analyst
Description	Automate loan eligibility decisions using historical applicant data and reduce default risk.
Preconditions	Complete loan application submitted. Historical loan data available.
Postconditions	Prediction output provided (Approved / Rejected / Risky) to assist decision.
Priority	High
Frequency of Use	Daily, for each new loan application
Normal Course of Events	1. Customer submits application 2. Model evaluates eligibility 3. Officer receives prediction 4. Decision is made
Alternative Courses	Manual evaluation when data is incomplete
Exceptions	Missing values, outliers, inconsistent records
Includes	Credit scoring, income evaluation, risk profiling
Special Requirements	Must meet fairness and compliance standards
Assumptions	Historical data is accurate and representative
Notes and Issues	Regular model retraining needed to maintain accuracy

✅ Use Case 2: Customer Churn Prediction

Field	Details
Actor	Customer Success Manager (CSM), Data Analyst
Description	Predict probability of customer churn to enable proactive retention.
Preconditions	Customer activity data and churn history available
Postconditions	High-risk customers are flagged for retention steps
Priority	High
Frequency of Use	Weekly or monthly churn scoring
Normal Course of Events	1. Model predicts churn risk 2. High-risk customers listed 3. Retention campaigns executed
Alternative Courses	Rely on complaints or inactivity for churn clues
Exceptions	Churn caused by external, undetectable factors
Includes	Churn scoring logic, behavior-based flags
Special Requirements	Alert system for early churn warning
Assumptions	Recent and clean data is available
Notes and Issues	Some churn drivers may remain hidden (e.g., personal reasons)

✅ Use Case 3: Dashboard Insights for Management

Field	Details
Actor	Business Analyst, Senior Management
Description	Visual dashboards summarize churn, loan approval, and customer patterns for decision-making.
Preconditions	Clean datasets; dashboard tools like Excel or Power BI configured
Postconditions	Management reviews insights and acts on trends
Priority	Medium-High
Frequency of Use	Weekly and monthly meetings
Normal Course of Events	1. Data refreshed 2. Trends analyzed 3. Decisions made using insights
Alternative Courses	Manual reports or raw SQL outputs
Exceptions	Stale data, dashboard misconfigurations
Includes	KPI cards, charts, filters
Special Requirements	Must be user-friendly and management-friendly
Assumptions	Unified definitions of KPIs and metrics
Notes and Issues	Ongoing validation needed to ensure accurate insights