**📘 Use Case Document**

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

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| 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**

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| 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**

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| 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 |