**Document 1-Business Case Document Template**

Business Case for Bank of Baroda Personal Loan Online System Project

* **Why is this project initiated?**
* To transition the personal loan application process from paper-based to an online, paperless system.
* Enhance customer convenience, reduce loan processing time, and improve operational efficiency.
* Stay competitive in the market by offering digital services that meet modern customer expectations.
* **2. What are the current problems?**
* Delayed loan processing due to manual verification and approvals.
* High operational costs associated with handling, storing, and managing paperwork.
* Limited customer accessibility; customers need to visit branches physically.
* Prone to human errors and mismanagement of documents.
* Lack of scalability to handle increasing loan applications.
* **3. With this project, how many problems could be solved?**
* Automates document verification and credit checks, reducing processing time by 50%.
* Eliminates paperwork, cutting operational costs by 20%.
* Provides customers with 24/7 access to apply for loans online.
* Improves data accuracy and security with digital document handling.
* Enhances scalability, allowing the system to handle thousands of concurrent applications.
* **4. What are the resources required?**
* **People**:

Project manager, developers, testers, network engineers, and data security specialists.

* **Technology**:

Servers, cloud storage, software for automation, third-party integrations (credit bureau APIs, Aadhaar verification).

* **Budget**:

Approximate cost of hardware, software, training, and implementation services.

* **Other Resources**:

Office space for project team, training materials, and customer onboarding support.

* **How much organizational change is required to adopt this technology?**
* Moderate change required to train loan officers and customer service representatives.
* Develop customer awareness programs to encourage adoption of the online system.
* Transition legacy processes to digital workflows, requiring updates to internal policies and procedures.
* **Time frame to recover ROI (Return on Investment)**
* Expected ROI recovery within 2 years due to reduced operational costs and increased loan processing capacity.
* **How to identify stakeholders?**
* Identify internal stakeholders:

Loan officers, IT staff, management, compliance teams, and marketing teams.

* Identify external stakeholders:

Customers (loan applicants), third-party service providers (credit bureau, identity verification).

* Conduct stakeholder analysis:

Assess their influence and interest in the project and prioritize their involvement.

**Document 2**

* **What Elicitation Techniques to apply**Elicitation techniques are Interview, Brainstorming, Document Analysis, Reverse engineering, Focus Groups, Observation, Workshops, Job Shadowing, Interviews, Prototyping, Questionnaires/Surveys
* **how to do Stakeholder Analysis RACI/ILS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Stakeholder | Position | Responsible | Accountable | Consulted | Informed |
| Kalyani | |  | | --- | | Project Sponsor | |  | ✓ | ✓ | ✓ |
| Praful | |  | | --- | | Business Owner | |  | ✓ | ✓ | ✓ |
| Jovial | |  | | --- | | Project Manager | | ✓ |  | ✓ | ✓ |
| Snehal | System Architect | ✓ |  | ✓ | ✓ |
| Sanchita | |  | | --- | | Development Lead | | ✓ |  |  |  |
| Punam | |  | | --- | | UX/UI Lead |  |  | | --- | |  | | ✓ |  |  |  |
| Satish | QQA | ✓ |  | ✓ |  |
| Vaishali | |  | | --- | | IT |   Integration team   |  | | --- | |  | | ✓ |  | ✓ | ✓ |
| Suresh | Marketing Team |  |  | ✓ | ✓ |
| Ramesh | Support Team |  |  | ✓ | ✓ |

**What Documents to Write**Documents are BRD, FRD, Use case Documentation, and Test case Documentation

**What process to follow to Sign off on the Documents**Prepare and Review: Ensure the document is complete, accurate, and aligned with project requirements by reviewing it with relevant stakeholders.

Obtain Stakeholder Approval: Share the document for review, address feedback, and collect approvals via signatures (physical or digital).

Finalize and Archive: Mark the document as "signed off," distribute it to stakeholders, and store it securely for future reference.  
  
**How to take Approvals from the Client**

Present the deliverable to the client, address any feedback, and obtain formal approval through email, signatures, or a project management tool.  
  
**What Communication Channels to establish n implement**

Regular meeting, formal communication by mail, regular reports, instant message for quick discussion, monthly stakeholder updates.

**How to Handle Change Requests  
Change Request Process, Receive Requests, Review Requests, Evaluate Impact, Decision Making, Implement Approved, Changes Monitor and Review, Close Change Request.**

**How to update the progress of the project to the Stakeholders**Provide regular progress updates through concise status reports, meetings, or project management tools, highlighting milestones, risks, and next steps.

**How to take signoff on the UAT- Client Project Acceptance Form**To take signoff on the UAT (User Acceptance Testing) - Client Project Acceptance Form, present the completed UAT results to the client, address any feedback, and obtain formal approval through a signed form or digital acknowledgment.

**Document 3- Functional Specifications**

|  |  |
| --- | --- |
| Project name | SMFG PAYTM PL |
| Customer name | Bank User |
| Project Version | 1.1 |
| Project Sponsor | Kalyani |
| Project Manager | Jovial |
| Project Initiation date | 1. Jan 2025 |

**Functional Requirement specifications:**

|  |  |  |  |
| --- | --- | --- | --- |
| Req ID | Req Name | Req Description | Priority |
| FR1 | User Registration | The system must allow users to register with personal details, mobile number, and email verification. | High |
| FR2 | Login and Authentication | The system must provide secure login with multi-factor authentication (MFA). | High |
| FR3 | |  | | --- | | Document Upload |  |  | | --- | |  | | Users must be able to upload required documents (e.g., ID proof, salary slips) in a secure format. | High |
| FR4 | Application Status Tracking | Users must be able to track the status of their loan application in real time. | High |
| FR5 | Loan Eligibility Calculator | The system must provide a calculator to estimate loan eligibility based on income and credit score. | Medium |
| FR6 | Credit Score Integration | The system must integrate with third-party services to retrieve and validate users' credit scores. | High |
| FR7 | Loan Disbursement Notification | The system must notify users once the loan amount is disbursed to their account. | High |
| FR8 | Data Encryption | All user data and communications must be encrypted using industry-standard encryption protocols. | High |
| FR9 | Mobile-Friendly Interface | The system must be optimized for access on both desktop and mobile devices. | Medium |
| FR10 | |  | | --- | | Audit Trail | | The system must maintain a detailed log of all transactions and user interactions for compliance purposes. | High |
| FR11 | |  | | --- | | Regulatory Compliance | | The system must adhere to RBI regulations and guidelines for digital lending. | High |
| FR12 | |  | | --- | | Performance Metrics |  |  | | --- | |  | | The system must respond to user requests within 2 seconds under normal load conditions. | Medium |
| FR13 | |  | | --- | | Customer Support Chatbot |  |  | | --- | |  | | The system must include a chatbot for handling common queries and FAQs. | Medium |

**Document 4- Requirement Traceability Matrix**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Req ID | Req name | Req description | Design | code | Unit testing | Component testing | System testing | SIT | UAT(user acceptance testing |
| FR1 | User Registration | The system must allow users to register with personal details, mobile number, and email verification. | Completed | completed | completed | completed | completed | completed | completed |
| FR2 | Login and Authentication | The system must provide secure login with multi-factor authentication (MFA). | Completed | completed | completed | completed | completed | completed | completed |
| FR3 | |  | | --- | | Document Upload |  |  | | --- | |  | | Users must be able to upload required documents (e.g., ID proof, salary slips) in a secure format. | Completed | completed | completed | completed | completed | completed | completed |
| FR4 | Application Status Tracking | Users must be able to track the status of their loan application in real time. | Completed | completed | completed | completed | completed | completed | completed |
| FR5 | Loan Eligibility Calculator | The system must provide a calculator to estimate loan eligibility based on income and credit score. | Completed | completed | completed | completed | completed | completed | completed |
| FR6 | Credit Score Integration | The system must integrate with third-party services to retrieve and validate users' credit scores. | Completed | completed | completed | incompleted | completed | completed | completed |
| FR7 | Loan Disbursement Notification | The system must notify users once the loan amount is disbursed to their account. | Completed | completed | completed | completed | completed | completed | completed |
| FR8 | Data Encryption | All user data and communications must be encrypted using industry-standard encryption protocols. | Completed | completed | completed | completed | completed | completed | completed |
| FR9 | Mobile-Friendly Interface | The system must be optimized for access on both desktop and mobile devices. | Completed | completed | completed | completed | completed | completed | completed |
| FR10 | |  | | --- | | Audit Trail | | The system must maintain a detailed log of all transactions and user interactions for compliance purposes. | Completed | completed | completed | completed | completed | completed | completed |
| FR11 | |  | | --- | | Regulatory Compliance | | The system must adhere to RBI regulations and guidelines for digital lending. | incompleted | completed | completed | completed | completed | Incompleted | Incompleted |
| FR12 | |  | | --- | | Performance Metrics |  |  | | --- | |  | | The system must respond to user requests within 2 seconds under normal load conditions. | Completed | completed | completed | completed | completed | completed | completed |
| FR13 | |  | | --- | | Customer Support Chatbot |  |  | | --- | |  | | The system must include a chatbot for handling common queries and FAQs. | Completed | completed | completed | completed | completed | completed | completed |

**Document 5- BRD Template**

1. **Document Revisions**

|  |  |  |
| --- | --- | --- |
| Date Version | Number | Document Changes |
| 1/6/2024 | 0.2 |  |

1. **Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Role | Name | Title | Signature | Date |
| Project Sponsor | Kalyani | Senior Executive | Kalyani | 1/6/2024 |
| Business Owner | Praful | Head of Loan Division | Praful | 11/6/2024 |
| System Architect | Jovial | |  | | --- | | Project Manager |  |  | | --- | |  | | Jovial | 13/6/2024 |
| Development Lead | Snehal | |  | | --- | | System Architect |  |  | | --- | |  | | Snehal | 14/6/2024 |
| Lead User | Sanchita | |  | | --- | | Lead Developer |  |  | | --- | |  | | Sanchita | 16/6/2024 |
| User Experience Lead | Punam | UX Designer | Punam | 17/6/2024 |
| Quality Lead | Satish | QA Manager | Satish | 18/6/2024 |
| Content Lead | Vaishali | Content Specialist | Vaishali | 19/6/2024 |

1. **3. RACI Chart for This Document**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Position | R | A | C | I |
| Kalyani | |  | | --- | | Project Sponsor | |  | ✓ | ✓ | ✓ |
| Praful | |  | | --- | | Business Owner | |  | ✓ | ✓ | ✓ |
| Jovial | |  | | --- | | Project Manager | | ✓ |  | ✓ | ✓ |
| Snehal | System Architect | ✓ |  | ✓ | ✓ |
| Sanchita | |  | | --- | | Development Lead | | ✓ |  |  |  |
| Punam | |  | | --- | | UX/UI Lead |  |  | | --- | |  | | ✓ |  |  |  |
| Satish | QQA | ✓ |  | ✓ |  |
| Vaishali | |  | | --- | | IT |   Integration team   |  | | --- | |  | | ✓ |  | ✓ | ✓ |
| Suresh | Marketing Team |  |  | ✓ | ✓ |
| Ramesh | Support Team |  |  | ✓ | ✓ |

**4. Introduction**

**4.1. Business Goals**

1. Increase the adoption of digital channels by providing a seamless online personal loan application process.
2. Simplify and speed up the loan approval process by eliminating paperwork and enabling real-time application tracking.
3. Reduce dependency on manual processes, minimize human error, and optimize resource allocation.
4. Stay competitive by offering cutting-edge digital services aligned with customer expectations and market trends.
5. Fully adhere to RBI guidelines for digital lending to ensure trust and transparency in services.

**4.2. Business Objectives**

* Enhance customer satisfaction by offering faster loan approvals and improved service delivery.
* Reduce approval times and paperwork by automating manual processes.
* The Purpose of this project is to validate the customer whether the customer is eligible for personal loan
* Identify and select an automated personal loan processing solution that meets the bank's requirements.
* The Purpose of this project is to check for how much amount customer is eligible for loan.
* The Purpose of this project is to ensure Data Security and

**4.3. Business Rules**

#### **Organization Policies and Procedures**

* **Loan Application Process**

All personal loan applications must be submitted online through the official Bank of Baroda website or mobile app, with no physical paperwork required.

Applicants must provide accurate and up-to-date personal and financial details, which will be verified through integrated third-party systems (e.g., Aadhaar, PAN).

* **Eligibility Criteria for Loan Approval**

Applicants must meet predefined criteria, including a minimum age of 21 years, a valid income source, a satisfactory credit score, and the ability to repay the loan.

The system must automatically calculate the eligibility of the applicant based on entered details and relevant data from external sources (e.g., credit score).

* **Interest Rate Calculation**

Interest rates for personal loans will be calculated based on the applicant’s credit score, loan amount, and loan tenure, following the bank's tiered rate structure.

* **Loan Approval Process**

The loan approval process should be automated based on eligibility criteria, minimizing the time required for approval.

* **Loan Disbursement Procedure**

Once a loan is approved, the disbursement of funds must occur within 24 hours via an electronic transfer to the applicant's registered bank account.

#### **Rules & Regulations**

1. **Compliance with Financial Regulatory Standards**
   * The system must comply with the regulations set by the **Reserve Bank of India (RBI)** regarding personal loan disbursals, interest rates, and customer protection.
2. **Know Your Customer (KYC) Compliance**
   * All applicants must undergo KYC verification, which includes validation of identity documents such as **Aadhaar** and **PAN card**.
3. **Data Privacy and Protection**
   * All personal and financial information collected from applicants must be stored securely, in compliance with **data protection laws** (e.g., **GDPR**, **Indian Data Protection Bill**).
4. **Audit and Reporting Requirements**
   * The system should log all user actions and loan transactions for audit purposes.
   * Detailed reports on loan applications, approvals, disbursements, and repayments must be generated regularly for internal and regulatory audits.
5. **Accessibility Standards**
   * The system must meet **Web Content Accessibility Guidelines (WCAG)** to ensure that users with disabilities can access and use the online loan application portal.
   * Regular accessibility testing should be conducted to ensure compliance with these standards.

**4.4. Background**

The **Bank of Baroda Personal Loan Online System** project was initiated to modernize the traditional, paperwork-based loan application process. Customers expressed the need for a faster, more convenient digital solution. Operational inefficiencies, including delays and manual errors, were prevalent in the existing process, affecting customer satisfaction. Competitors were already offering digital loan services, prompting the need for innovation. The project aims to streamline loan approvals, reduce operational costs, and enhance customer experience. By eliminating physical paperwork, the bank can offer quicker loan disbursals and improve data accuracy. Additionally, the system will provide greater accessibility, especially in remote areas. The expected benefits include reduced processing times, cost savings, and a competitive edge. It also aligns with regulatory requirements for digital banking and promotes sustainability.

**4.5. Project Objective**

* **Develop a Seamless Online Loan Application Process**
  + **Objective**: Create an intuitive, user-friendly online system that allows customers to apply for personal loans without any physical paperwork.
  + **Business Alignment**: This aligns with the goal of improving customer experience and enhancing the bank's digital transformation.
* **Automate Loan Eligibility and Approval Workflow**
  + **Objective**: Automate the eligibility check, document verification, and loan approval process using predefined rules and integrated systems.
  + **Business Alignment**: Streamlining loan processing will reduce delays, minimize errors, and increase overall operational efficiency.
* **Integrate with Third-Party Systems for Data Verification**
  + **Objective**: Ensure seamless integration with third-party systems like credit bureaus, KYC verification services, and digital identity platforms to verify customer details.
  + **Business Alignment**: This supports the need for accurate data processing and enhances security and compliance with regulatory requirements.
* **Provide Real-Time Loan Status and Repayment Information**
  + **Objective**: Allow customers to track their loan application status and view repayment schedules in real-time via the online platform.
  + **Business Alignment**: This enhances customer satisfaction by providing transparency and timely updates.
* **Enable Secure Online Loan Disbursement**
  + **Objective**: Implement an online payment gateway for secure loan disbursement directly to customer accounts upon approval.
  + **Business Alignment**: This ensures faster service, meets customer expectations, and aligns with the bank's operational goals of reducing processing time.
* **Support Data Security and Regulatory Compliance**
  + **Objective**: Ensure the system complies with data privacy laws, including encryption of sensitive data, and follows anti-money laundering (AML) and KYC guidelines.
  + **Business Alignment**: Ensuring regulatory compliance reduces legal risks and builds customer trust in the bank's digital services.
* **Scalable and User-Friendly Interface**
  + **Objective**: Design the system to handle a growing number of users and applications while maintaining a user-friendly interface across devices.
  + **Business Alignment**: This aligns with the bank’s goals to scale its digital banking services and attract a broader customer base.
* **Provide Analytics and Reporting for Loan Performance**
  + **Objective**: Implement reporting tools for the bank to monitor loan performance, repayment schedules, and default risks.
  + **Business Alignment**: This supports decision-making and the bank's goal of managing risks effectively and optimizing financial services.
* **Ensure High Availability and System Reliability**
  + **Objective**: The system must be robust, with high uptime, to ensure that customers can apply for loans at any time without disruptions.
  + **Business Alignment**: Ensures continuous service, which is critical to customer satisfaction and the bank’s reputation as a reliable service provider.
* **Seamless Integration with Existing Core Banking Systems**
  + **Objective**: Ensure smooth integration of the loan system with the bank's core banking platform for real-time updates on loan disbursements, payments, and interest calculations.
  + **Business Alignment**: This will enhance operational efficiency by reducing redundancy and enabling real-time tracking of loan data.

**4.6. Project Scope**

* **Online Loan Application Portal-**Development of a user-friendly web and mobile interface where customers can fill out personal loan applications, submit necessary documents digitally, and track application status in real-time.
* **Eligibility Assessment and Automated Approval Workflow-**Implementation of an automated eligibility check system based on predefined criteria (e.g., credit score, income, age) and integration with external systems for KYC verification.
* **Document Upload and Digital Verification -** Secure storage and management of digital documents to ensure data integrity and compliance with regulations.
* **Loan Disbursement System-** Creation of a secure online payment system to disburse the approved loan amount directly to the customer's registered bank account upon approval.
* **Repayment Scheduling and Tracking-**Implementation of a dynamic loan repayment schedule, automatically generating monthly installments based on loan amount, tenure, and interest rate.
* **Integration with Core Banking Systems-** Seamless integration with Bank of Baroda's existing core banking systems to ensure accurate data exchange for loan disbursement, repayment tracking, and account updates.
* **Customer Support and Communication Channels-** Development of customer support tools, including a chat interface, FAQ section, and email support for users who need assistance with the application process or loan management.
* **Data Security and Compliance Features-** Implementation of industry-standard encryption and security protocols to safeguard sensitive customer data.
* **Reporting and Analytics -**Development of reporting tools for internal bank use, allowing staff to track loan applications, approvals, disbursements, and repayments.
* **System Maintenance and Support-** Post-launch system maintenance and updates to ensure smooth operation, address any bugs, and incorporate customer feedback for continuous improvement.

**4.6.1. In Scope Functionality**

* Online Loan Application Portal
* Automated Loan Eligibility Check
* Document Verification System
* Loan Approval and Rejection Workflow
* Loan Disbursement System
* Loan Repayment Schedule and Management
* Core Banking System Integration
* Customer Communication and Notification System
* Data Security and Privacy Features
* Real-Time Loan Tracking Dashboard
* User Access Control and Role Management

**4.6.2. Out Scope Functionality**

* Physical Loan Application Process
* Branch-based Loan ServicesDevelopment or modification of loan services offered at Bank of Baroda branches, including paper-based application submissions, document processing, and in-branch customer support.
* Integration with Non-Banking Services
* Offline Loan Application Process
* Custom Loan Calculation Tools
* Loan Management Features for Other Types of Loans
* Global or International Loan Products

**5. Assumptions**

* **Customer Access to Digital Devices and Internet**
  + It is assumed that customers applying for personal loans will have access to smartphones, computers, and a stable internet connection to submit applications and track loan progress.
* **Compliance with Regulatory Standards**
  + It is assumed that all necessary legal, regulatory, and compliance standards (e.g., KYC, AML, Data Privacy) will be followed and that external verification systems (e.g., PAN, Aadhaar, credit score providers) are accessible and functional.
* **Availability of Required Data for Eligibility Check**
  + It is assumed that customer data needed for eligibility checks (e.g., credit score, income, personal details) will be readily available through secure integrations with external verification services.
* **Existing Core Banking System Integration**
  + It is assumed that the existing Bank of Baroda core banking system will support seamless integration with the new personal loan online system, ensuring real-time updates on loan applications, disbursements, and repayments.
* **Digital Document Submission**
  + It is assumed that all documents required for loan applications (e.g., identity proof, income proof) will be submitted in digital formats (e.g., PDFs, scanned images) by the customers, and these can be securely stored and verified.
* **User Adoption and Acceptance**
  + It is assumed that customers will readily adopt and use the online loan application platform, with minimal resistance to a digital-only process, particularly in areas where digital adoption is high.
* **Bank Staff Training**
  + It is assumed that Bank of Baroda staff will receive adequate training to manage and support the new system effectively, including handling customer inquiries and managing loan approval processes.
* **Customer Communication and Support Availability**
  + It is assumed that adequate customer communication channels (e.g., email, phone, live chat) will be available for users needing support throughout the loan application process.
* **Continuous System Maintenance**
  + It is assumed that the system will have a maintenance plan in place post-launch, with regular updates, bug fixes, and feature improvements to ensure the long-term success of the project.
* **Availability of IT Resources**
  + It is assumed that the required internal IT resources (e.g., development team, QA testers, system architects) will be available on schedule to ensure the timely delivery of the project.

1. **Constraints**

* **Budget Constraints**-The project must adhere to a strict budget, limiting the resources available for development, testing, marketing, and training.
* **Time Constraints**- The system needs to be developed and deployed within a specific timeline, which might limit the scope of features that can be delivered in the initial phase.
* **Regulatory and Compliance Constraints**-The project must comply with local financial regulations, including data privacy laws, KYC, and AML requirements, which may limit certain features or processes.
* **Technical Constraints**- The system must integrate with existing Bank of Baroda infrastructure, which may have compatibility issues with the new online platform, limiting flexibility in design and functionality.
* **Data Security and Privacy**- Strict security measures must be implemented to protect sensitive customer data. This can limit some design and data handling choices to comply with industry standards and regulatory requirements.
* **User Adoption and Digital Literacy**- The system must be intuitive and user-friendly to encourage adoption by customers, particularly those who may not be digitally savvy. This may limit some design choices or require more extensive customer education.
* **Resource Constraints**- Availability of skilled resources (e.g., developers, testers, legal experts) may be limited, impacting project timelines or requiring adjustments in the project’s scope.
* **Integration with Third-Party Services**- Dependence on third-party services for functions like credit score checks, document verification, and SMS/email alerts can create bottlenecks if those services are delayed or unavailable.
* **Operational Limitations**-The current operations team may face challenges in handling the new digital loan process, requiring additional training or a transition period, which may impact system effectiveness at launch.
* **Legacy System Limitations**- The integration with legacy systems may pose constraints on the flexibility or scalability of the new online personal loan application system.
* **Customer Support Infrastructure**- The need for effective customer support to assist with technical or loan-related queries could be constrained by limited resources, impacting user experience and satisfaction.
* **Marketing and Awareness**- A limited marketing budget or timeline may hinder efforts to fully inform potential customers about the new system, affecting its adoption rate.
* **Testing and Quality Assurance**- With limited time and resources, the scope of testing may need to be constrained, potentially leaving some system components under-tested and more prone to issues post-launch.

1. **Risks**

#### ****Technological Risks-****As the project involves automating the loan process, the adoption of new technologies is a significant risk. These could include issues related to system integration, software incompatibility, or performance problems. The new system might not be able to handle the scale or complexity of the loan processes.

* **Likelihood:** Medium (due to reliance on new or untested technologies)
* **Impact:** High (if the system fails to integrate or underperforms, it could cause delays and reduce user confidence)
* **Mitigation Strategy:** Perform rigorous testing during the development phase and integrate with legacy systems in smaller, manageable phases. Use proven technologies and include a fallback plan if the primary solution faces technical issues.

#### ****Skills Risks-****The project might face difficulties in obtaining staff with the required expertise for automating loan processing. This could delay the timeline or result in suboptimal system implementation.

* **Likelihood:** High (since specialized skills in automation, machine learning, and financial software may be required)
* **Impact:** Medium (delays in staffing could push back milestones, leading to missed deadlines)
* **Mitigation Strategy:** Recruit well in advance, and work with contractors or consultants to supplement internal skills. Provide training to existing staff to bridge any gaps.

#### ****Political Risks-****Political factors, such as changes in regulations, new laws related to financial data privacy, or shifts in government policy, could affect the project. For instance, stricter regulations on personal loan data or automation might require significant changes to the project scope.

* **Likelihood:** Low (assuming the project complies with current regulations)
* **Impact:** High (unexpected regulatory changes could cause delays or require redesigning parts of the system)
* **Mitigation Strategy:** Regularly monitor regulatory changes and keep close communication with legal teams to ensure compliance. Include flexibility in the project scope to handle future adjustments.

#### ****Business Risks**:** If the project is canceled or delayed, there could be significant business consequences. These include financial losses due to wasted resources, loss of competitive advantage in the market, or reputational damage.

* **Likelihood:** Medium (given that unforeseen circumstances or shifting business priorities could derail the project)
* **Impact:** High (if the project fails, the business could face financial loss and client dissatisfaction)
* **Mitigation Strategy:** Develop a clear business case and regularly communicate the project’s progress to stakeholders. Implement risk-sharing strategies and back-up plans, such as phased rollouts, to ensure continuous value.

#### ****Requirements Risks:**** There is a risk that the project requirements may not be fully captured or understood during the requirements gathering phase. Misunderstood or incomplete requirements could lead to missed features or functionality gaps.

* **Likelihood:** Medium (due to the complexity of loan processes and automation requirements)
* **Impact:** Medium (the project might not meet all business needs or require rework if requirements are misunderstood)
* **Mitigation Strategy:** Conduct thorough and detailed requirements workshops with all stakeholders. Use prototypes and iterative feedback during the design phase to ensure all requirements are correctly understood.

#### ****Other Risks:**** There are additional risks not directly covered by the categories above. These could include external market conditions (e.g., interest rate changes), changes in business objectives, or unforeseen technical challenges during deployment.

* **Likelihood:** Low to Medium (depending on the external factors)
* **Impact:** Medium to High (depending on the nature and timing of the risk)
* **Mitigation Strategy:** Regularly review project progress and make adjustments if needed. Maintain an open line of communication with stakeholders to anticipate any significant shifts in the business environment.

1. **Business Process Overview**

* **Step 1: Customer Accesses Online Portal-** The customer visits the Bank of Baroda's online personal loan portal using a web browser or mobile application.
* **Step 2: Customer Inputs Personal and Financial Details-** The customer enters personal details (name, address, date of birth, etc.) and financial details (income, employment details, etc.) in the application form.
* **Step 3: Document Upload-** The customer uploads digital copies of required documents such as ID proof, address proof, income proof, and bank statements.
* **Step 4: Automated Eligibility Check-** The system performs an automatic eligibility check based on predefined criteria such as income, credit score, and employment status.
* **Step 5: KYC and Compliance Verification-**The system automatically verifies the customer’s KYC details through integration with third-party verification services (e.g., Aadhaar, PAN).
* **Step 6: Loan Application Review-** Once eligibility and KYC verification are complete, the loan application is passed to the loan officer or automated decision-making system for final approval.The loan officer reviews the data and makes the final decision based on the applicant's eligibility and internal criteria.
* **Step 7: Loan Approval/Denial-** If approved, the system generates an approval notification to the customer, detailing the loan amount, interest rate, repayment terms, and EMI.If denied, the system generates a denial notification with the reason for rejection.
* **Step 8: Disbursement Process-** After loan approval, the disbursement process is initiated.The loan amount is transferred to the customer’s registered bank account using secure online banking transactions.
* **Step 9: Customer Receives Loan-**The customer receives the approved loan amount in their account.A confirmation SMS/email is sent to the customer with details of the loan disbursement and repayment schedule.
* **Step 10: Loan Repayment Setup-**The customer sets up automated EMIs (Equated Monthly Installments) through direct debit or standing instructions from their bank account.
* **Step 11: Monthly Repayment-**The customer makes monthly payments toward the loan principal and interest. The system updates the repayment status and sends reminders to the customer for upcoming dues.
* **Step 12: Loan Closure Confirmation-** After all EMIs are paid, the system automatically triggers a loan closure process. The system sends a closure notification to the customer, confirming that the loan is paid off and closed.
* **Step 13: Credit Reporting and Updates-**The loan closure is reported to credit bureaus, and the customer's credit score is updated accordingly. A final statement is issued to the customer for their records.
* **Step 14: Customer Suppor-**In case of issues or queries, the customer can reach out to the bank’s customer support team through chat, email, or phone.The system logs the queries, and support staff addresses them as per the SLAs (Service Level Agreements).

**8.1. Legacy System (AS-IS)**

The **Legacy System (AS-IS)** refers to the current manual or semi-automated processes used in the personal loan approval system before the introduction of the new automated system. This system typically involves a lot of paperwork, manual data entry, and reliance on various staff members for different stages of the loan approval process. Let's break down the existing process and identify the challenges that will be addressed by the proposed automated system.

1. **Customer Loan Application Submission**:
   * The process begins when a customer applies for a personal loan. This can be done through physical forms, emails, or an online form, depending on the legacy system.
   * **Challenges**:
     + Risk of missing or incorrect data due to manual entry.
     + Time-consuming process as the forms have to be verified manually.
2. **Document Verification**:
   * Submitted documents, such as proof of income, identity, and residence, are manually reviewed by a loan officer.
   * **Challenges**:
     + High potential for human error.
     + Risk of fraud or missing documents.
     + Slow processing time due to manual verification.
3. **Credit Check**:
   * Once the documents are validated, the loan officer manually initiates a credit check through an external service (e.g., a credit bureau).
   * **Challenges**:
     + The process is prone to delays as it relies on external systems and human intervention.
     + Errors in data entry could lead to incorrect credit information being retrieved.
4. **Loan Approval Process**:
   * After the credit check is complete, the loan officer reviews all the details (e.g., credit score, income, loan amount) to determine if the loan should be approved or denied.
   * **Challenges**:
     + Decision-making is manual, and loan officers may make inconsistent decisions based on personal judgment or errors.
     + Loan approval time can be delayed by back-and-forth communication between departments and manual paperwork handling.
5. **Customer Notification**:
   * Once a decision is made, the customer is notified through phone calls, emails, or postal mail about the approval or denial of the loan.
   * **Challenges**:
     + Notification can be delayed due to manual handling.
     + There's a chance that customers do not receive timely updates about their loan status.
6. **Loan Disbursement**:
   * Upon approval, the loan amount is manually processed for disbursement to the customer's bank account.
   * **Challenges**:
     + Manual steps involved in fund transfer, which can cause delays.
     + The potential for clerical errors in the disbursement process

#### ****Challenges in the Legacy System****:

* **Heavy reliance on paperwork**: Requires extensive manual entry and physical documentation, making the process slow and error-prone.
* **Time-consuming verification**: Document verification and credit checks are done manually, resulting in delays and inconsistency.
* **Human error**: Manual data entry and decision-making lead to a high risk of errors, which can affect the accuracy of loan processing.
* **Inefficiency**: Multiple departments and manual handoffs create bottlenecks in the loan approval cycle, leading to longer approval times.
* **Limited scalability**: As the system relies on manual steps, it becomes increasingly difficult to scale when the loan volume rises

#### ****Process Flow Diagram (AS-IS)****

Customer Loan Application (Physical forms, email, or online submission)

Document Verification (Manual review of documents)

Credit Check (Manual initiation to external credit bureau)

Loan Approval Process (Manual review and decision making by loan officer)

Customer Notification (Phone call, email, or post)

Loan Disbursement (Manual processing and transfer to customer)

**8.2. Proposed Recommendations**

The **Proposed System (TO-BE)** aims to automate and streamline the personal loan application process to address the inefficiencies, errors, and delays present in the **legacy system (AS-IS)**. By incorporating technology, the new system will reduce paperwork, automate key steps, and improve overall efficiency, resulting in faster loan approval times, reduced operational costs, and enhanced customer satisfaction.

1. **Digital Loan Application Submission**: Customers can submit their loan applications through an online portal or mobile app. This will replace the traditional paper-based forms and emails.

**How It Addresses Legacy Challenges**:

* + - Eliminates physical paperwork, reducing data entry errors.
    - Provides a user-friendly interface for customers, enhancing their experience.
    - Captures data in a structured format, minimizing manual work.

1. **Automated Document Verification**: The new system will include an integrated document verification feature, where customers can upload required documents directly through the portal. AI-powered software will automatically verify documents like ID proof, income statements, and residency verification.
   * **How It Addresses Legacy Challenges**:
     + Speeds up the verification process and reduces human error.
     + Automates the identification of missing or incorrect documents, minimizing delays.
     + Reduces the need for manual intervention, lowering the risk of fraud.
2. **Automated Credit Check**: Upon submission, the system will automatically initiate credit checks through integration with external credit bureaus or financial systems.
   * **How It Addresses Legacy Challenges**:
     + Eliminates delays due to manual requests and human intervention.
     + Ensures accurate and up-to-date credit information.
     + Speeds up the process by automatically retrieving and assessing credit scores.
3. **Loan Approval Process with Automated Decision Engine**: An AI-based decision engine will analyze the customer’s application, credit score, income, and other factors to automatically approve or reject the loan request based on predefined business rules and risk criteria.
   * **How It Addresses Legacy Challenges**:
     + Streamlines decision-making, reducing inconsistencies and human bias.
     + Reduces decision time from hours or days to minutes.
     + Ensures compliance with business rules, regulations, and risk policies.
4. **Instant Customer Notification**: Once the loan is approved or rejected, the system will automatically notify the customer via email or SMS about the decision. The notification will include all relevant details, such as loan amount, interest rate, and terms.
   * **How It Addresses Legacy Challenges**:
     + Automates communication, ensuring timely notifications.
     + Reduces the chances of errors or delays in informing the customer.
     + Allows customers to quickly take action based on the loan decision.
5. **Automated Loan Disbursement**: Upon loan approval, the system will trigger an automated transfer of funds to the customer’s bank account via integration with banking systems. This process will be securely handled through automated workflows.
   * **How It Addresses Legacy Challenges**:
     + Speeds up disbursement and minimizes the risk of clerical errors.
     + Reduces the time taken from loan approval to fund transfer.
     + Improves security by using encrypted transfer protocols.

#### ****How the Proposed System Addresses the Challenges of the Legacy System****:

* **Reduction of Paperwork**: The shift from physical forms to digital submissions will eliminate the need for paper documentation, reducing manual data entry errors and paperwork handling costs.
* **Faster Processing Time**: By automating key steps such as document verification, credit checks, and loan approvals, the system will significantly reduce processing time. Instead of taking days to approve a loan, the process can be completed within minutes.
* **Improved Accuracy**: Automation reduces human errors, especially in data entry and decision-making, ensuring accurate and consistent loan evaluations.
* **Enhanced Customer Experience**: With instant notifications and streamlined loan processing, customers will receive quicker updates, making the process more transparent and user-friendly.
* **Increased Scalability**: The automated system can easily handle an increasing number of loan applications without needing to scale up manual staff, which enhances efficiency during peak periods.
* **Cost Reduction**: By reducing reliance on manual labor and paperwork, the system lowers operational costs over time.

**9. Business Requirements**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID | |  | | --- | | **Requirement Description** |  |  | | --- | |  | | |  | | --- | | **System Functionality** |  |  | | --- | |  | | Priority |
| FR1 | |  | | --- | | Easy Loan Application Process | | |  | | --- | | The system should make it easy for customers to apply  for a loan with minimal steps. Users should be guided  through the process intuitively. |  |  | | --- | |  | | High |
| FR2 | Real-time Loan Application Status | |  | | --- | |  | | Customers must be able to check the status of their loan application in real-time to improve transparency and satisfaction. | |  |  | | --- | |  | | High |
| FR3 | Fast Processing and Approval | Customers expect fast loan processing times. The loan application and approval process should be optimized for speed and accuracy. | High |
| FR4 | Mobile-First Experience | The system should be mobile-friendly to ensure that customers can apply for loans and track their applications from mobile devices. | Medium |
| FR5 | Clear Communication | The system should notify customers of important actions, such as approval, rejection, or disbursement of their loan, via email/SMS. | High |
| FR6 | Data Privacy and Protection | The system must ensure that all customer data is securely stored and processed in accordance with data protection laws such as GDPR and CCPA. | High |
| FR7 | Regulatory Compliance | The system must adhere to all regulatory requirements, including RBI regulations and financial lending laws for digital platforms. | High |
| FR8 | Secure Authentication | The system should support secure login methods, including multi-factor authentication (MFA), to protect sensitive customer information. | Medium |
| FR9 | 24/7 Customer Support | The system should offer 24/7 support to answer customer questions, provide assistance during the loan process, and resolve any issues promptly. | Medium |
| FR10 | Self-Service Options | The system should provide a self-service portal for customers to view and update their information, track loan status, and interact with the loan process. | Medium |

**10. Appendices**

**10.1. List of Acronyms**

* **API** - Application Programming Interface
* **AML** - Anti-Money Laundering
* **EMI** - Equated Monthly Installment
* **KYC** - Know Your Customer
* **PAN** - Permanent Account Number
* **UAT** - User Acceptance Testing
* **RACI** - Responsible, Accountable, Consulted, Informed
* **UI** - User Interface
* **UX** - User Experience
* **QA** - Quality Assurance
* **ROI** - Return on Investment
* **SLA** - Service Level Agreement
* **ID** - Identification

**10.3 Glossary of Terms**

* API (Application Programming Interface)  
  A set of rules and protocols that allow different software applications to communicate and share data with each other. In this project, APIs are used to integrate external services like credit score checks, KYC, and document verification.
* AML (Anti-Money Laundering)  
  A set of procedures, laws, and regulations designed to prevent money laundering activities in the financial system. It is important for ensuring that the personal loan system complies with legal standards and does not facilitate illegal transactions.
* EMI (Equated Monthly Installment)  
  A fixed monthly payment made by a borrower to a lender (typically a bank) in order to repay a loan over a specified period of time. The EMI covers both principal and interest payments.
* KYC (Know Your Customer)  
  The process of verifying the identity of customers to prevent fraud, money laundering, and terrorism financing. In this project, KYC is essential for validating customer information and ensuring legal compliance.
* PAN (Permanent Account Number)  
  A unique identification number issued to individuals and entities in India for the purpose of tax reporting and financial transactions. It is an essential component of the loan application process for identity verification.
* UAT (User Acceptance Testing)  
  A phase in the software development process where the intended users test the system to ensure it meets their needs and requirements before being fully deployed.
* RACI (Responsible, Accountable, Consulted, Informed)  
  A matrix used to define roles and responsibilities in a project, ensuring clear communication and accountability. It helps identify who is responsible for each task, who must be consulted, and who needs to be kept informed.
* UI (User Interface)  
  The graphical layout and elements of an application that users interact with. This includes buttons, forms, and other elements that allow users to input data or receive feedback from the system.
* UX (User Experience)  
  The overall experience a user has when interacting with a system, particularly in terms of ease of use, design, and satisfaction. In this project, UX is focused on making the loan application process smooth, intuitive, and accessible.
* QA (Quality Assurance)  
  The process of ensuring that the software meets the desired quality standards by conducting various tests and evaluations during the development lifecycle.
* ROI (Return on Investment)  
  A performance metric used to measure the profitability or efficiency of an investment. In this project, ROI is used to evaluate the financial benefits of the online loan system compared to its development and operational costs.
* SLA (Service Level Agreement)  
  A formal agreement between a service provider and a customer that defines the level of service expected, including response times, issue resolution times, and other service quality measures.
* ID (Identification)  
  A document or method used to verify a customer's identity. Common forms of ID in the loan application process include government-issued ID cards, passports, and driver's licenses.

**10.3. Related Documents**

* Business Case Document
* Requirements Specification Document
* System Design Document
* Test Plan and Test Cases Document
* User Manual and Documentation