

Prepared by: - Mohammad Imran Date :- 12/12/2024

1. **Current Problems**
   1. **Inefficiency in Manual Documentation: -** Time-consuming paperwork leading to delays in processing.
   2. **Limited Accessibility:-**Physical visits required, which may inconvenience customers unable to visit branches easily.
   3. **Communication Gaps: -** Potential miscommunication between departments and stakeholders can lead to errors.
   4. **Dependency on Physical Verification: -** Reliance on in-person property inspections may slow down the process.
   5. **Document Fraud Risks: -** Increased vulnerability to submission of fraudulent documents.
   6. **High Turnaround Time: -** Lengthy approval timelines can deter potential borrowers.
   7. **Inconsistent Customer Experience: -** Variability in service quality across different branches and representatives.

## Lack of Real-Time Updates: - Customers may not receive timely updates on their application status.

* 1. **Resource Constraints:-Limited staff availability may lead to bottlenecks in processing applications.**

1. **With this project, these problems could be solved.**

## Faster Loan Processing:-

Digital banking has reduced home loan approval times by up to 70% due to automation, allowing approvals within a few hours to days compared to weeks

## Increased Accessibility and Convenience:-

Customers can now apply for home loans online 24/7, with 90% of top Indian banks offering digital loan applications on web and mobile Platforms.

## Improved Customer Experience:

With user-friendly digital interfaces and chat support, customer satisfaction rates for home loans have risen by approximately 40% in banks offering digital experiences.

## Reduced Operational Costs:

Automated processing reduces paperwork and physical resources, cutting operational costs by 20- 30% for banks and making home loans more affordable.

## Data Analytics and Insights:-

Digital systems enable better data collection and analysis, allowing for more informed decision- making and risk assessment.

## Enhanced Security:-

Measures Advanced digital security protocols can help safeguard sensitive customer information and reduce fraud risks.

1. **Resources required.**

|  |  |
| --- | --- |
| **Category** | **Resources** |
| **Personnel resources** | Project Manager (₹1,00,000 per month) |
| Developers (2 at ₹75,000 per month each) |
| UI/UX Designers (2 at ₹50,000 per month each) |
| Business Analyst |
| QA Engineers (2 at ₹40,000 per month each) |
| Security & Compliance Expert |
| Customer Support (5 at ₹25,000 per month  each) |
| **Software and Tools** | Google Cloud Platform (GCP) |
| Google Workspace (Annual Subscription) |
| Google Identity & Security |
| DocuSign Integration (Annual Subscription) |
| Third-Party APIs (Verification, Valuation, Legal  Agencies) |

1. **Organizational change is required to adopt this technology?**

## Process Overhaul

* + - Transition from manual to automated workflows to ensure efficiency.
    - Redesign of document handling processes to accommodate digital document management systems

## Staff Training and Upskilling

* + - Training programs for employees to use new tools like CRM software, workflow automation platforms, and analytics tools.
    - Building technical proficiency in cloud infrastructure and cybersecurity protocols.

## Cultural Shift

* + - Promoting a digital-first mind-set across teams.
    - Encouraging adoption of self-service and automation practices among employees and customers.

## Structural Modifications

* + - Realignment of roles and responsibilities to support new technology, such as appointing digital process coordinators.
    - Creation of a dedicated IT team for maintenance and troubleshooting of the new systems.

## Policy Updates

* + - Updating organizational policies to comply with digital transaction standards, cybersecurity regulations, and customer data protection laws.
    - Establishing clear guidelines for digital workflows and escalation procedures.

## Customer Engagement

* + - Educating customers about the new digital application process through campaigns and tutorials.
    - Providing customer support to facilitate easy adoption of the platform.

1. **Time frame for recover ROI.**

## Project Cost Overview:-

* + - Total Investment: ₹1,84,50,000 over 30 months.
    - Major Expenses: Infrastructure, software licenses, development, training, and maintenance.

## Revenue Streams:-

* + - Increased Loan Approvals: Faster processing times and wider customer reach.
    - Cost Savings: Reduced operational costs through automation and paperless processes.
    - Improved Customer Retention: Enhanced user experience driving repeat business.

## Expected Break-Even Period:-

* + - Estimated ROI Timeline: 18 to 24 months post-implementation.
    - Key Factors:
    - Increased loan disbursement volumes.
    - Reduction in operational costs by 20–30%.
    - Enhanced productivity and revenue growth through digital customer acquisition

## Projections for ROI:-

* + - Year 1: Moderate revenue increase as the system stabilizes.
    - Year 2: Significant revenue growth due to optimized processes and customer base expansion.
    - Year 3: ROI fully realized, with continued cost savings and profit increments.

1. **Identifying Stakeholders?**

## Analyze Project Scope:-

* + Identify areas impacted by the digital application, such as loan processing, customer service, IT, and compliance & Consider internal and external entities involved in the

Process.

## Categorize Stakeholders:-

* + Internal Stakeholders: Employees, managers, IT teams, and project sponsors.
  + External Stakeholders: Customers, regulatory bodies, vendors, and third-party service providers.

## Stakeholder Mapping:-

* + Use tools like RACI Matrix to determine roles and responsibilities (Responsible, Accountable, Consulted, and Informed). And Classify stakeholders based on their influence and interest in the project.

## Engagement Channels:-

* + Conduct workshops, interviews, and brainstorming sessions to gather input from stakeholders.
  + Use surveys and feedback mechanisms to understand customer expectations.

## Identify Key Decision-Makers:-

* + Pinpoint individuals or groups with authority over budgets, approvals, or process changes, such as senior management or regulatory authorities.

## Evaluate Impact and Interests:-

* + Assess how the project benefits or affects each stakeholder group & Prioritize stakeholders who play critical roles in project success.

1. **BA Strategy Adopted-**

## Define and Plan BA Activities:-

* 1. **Set Objectives:** Understand project goals and define BA deliverables.

## Elicitation Techniques:

* **Interviews and Workshops:** Engage stakeholders to gather requirements.
* **Document Analysis:** Study existing systems and documentation.
* **Prototyping:** Visualize requirements to align expectations.
* **Brainstorming:** Encourage ideas for innovative solutions.

## Stakeholder Analysis and RACI Matrix

* **Stakeholder Analysis:**
* Identify key stakeholders based on influence and interest.
* Use ILS (Interest, Location, and Support) framework to classify stakeholders.
* RACI Matrix: Define stakeholder roles: Responsible, Accountable, Consulted, Informed.

## Documentation

* **Comprehensive documents Involve:**
* Business Requirement Document (BRD): High-level requirements and goals.
* Functional Requirement Specification (FRS): Detailed system requirements.
* Use Case Specification: Process flows and scenarios.
* RTM (Requirements Traceability Matrix): Map requirements to deliverables.
* Sign-Off Documents: Finalize agreements with stakeholder signatures.

## Sign-Off and Approval Process

* Present documents to stakeholders for review.
* Address feedback and iterate as needed.
* Secure formal sign-off through meetings or digital tools like DocuSign.
* Communication Channels
* Establish effective channels:
* Email, Slack, or MS Teams for updates.
* Weekly status meetings to review progress.
* Project dashboards for real-time visibility.

## Change Request Management:-

* Implement a structured Change Control Process:
* Log change requests in a centralized system.
* Analyze impact and seek approvals from key stakeholders.
* Update requirements and documents accordingly.
* Progress Reporting Regular Updates: Share progress reports via email, dashboards, or presentations.
* Highlight milestones, risks, and next steps in weekly meetings.

## UAT and Final Sign-Off:-Conduct User Acceptance Testing (UAT):

* Involve stakeholders to validate requirements.
* Document feedback and resolve issues.
* Secure final acceptance through a Client Project Acceptance Form.

1. **Functional Specifications :-**

|  |  |
| --- | --- |
| **Project Name Home Loan Digital Application HDFC Bank** | |
| **Customer name** | **HDFC bank LTD** |
| **Project Version** | **1** |
| **Project Sponsor** | **HDFC bank LTD** |
| **Project Manager** | **Mr. Ashish Thorat** |
| **Project Initiation date** | **[01-07-2021]** |

* 1. Functional Requirement specifications

|  |  |  |  |
| --- | --- | --- | --- |
| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| FR0001 | Login | User should be able to log in to the system securely with valid credentials. | 10 |
| FR0002 | Search Loan | User should be able to search for home loan details using loan ID or customer ID. | 9 |
| FR0003 | Calculate EMI | System should calculate EMI based on loan amount, tenure, and interest rate. | 9 |
| FR0004 | View Loan Status | User should be able to view the current status of their home loan application. | 8 |
| FR0005 | Upload Documents | User should be able to upload required documents for loan processing. | 9 |
| FR0006 | Download Documents |  | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | User should be able to download previously uploaded  Documents. |  |
| FR0007 | Generate Loan Statement | User should be able to generate and view their loan statement for a specific period. | 7 |
| FR0008 | Notification Alerts | System should send notifications for loan updates, EMI due dates, and document submission reminders. | 10 |
| FR0009 | Loan Eligibility Check | User should be able to check loan eligibility by providing income and financial details. | 9 |
| FR0010 | Application Status Update | System should update users about the progress and status of their loan application. | 8 |
| FR0011 | Secure Payment Gateway | System should allow users to make secure payments for loan EMIs. | 10 |
| FR0012 | Loan Comparison Tool | User should be able to compare multiple loan options based on interest rates and tenure. | 7 |
| FR0013 | Profile Management | User should be able to view and update their profile information, including contact details. | 8 |
| FR0014 | Customer Support Chat | System should provide a chat option for customer support queries related to loan services. | 9 |
| FR0015 | Logout | User should be able to log out of the system securely. | 10 |
| **B.2 Non-Functional Requirement specifications** | | |  |
| **Req ID** | **Req Name** | **Req Description** | **Priority** |
| NFR- 001 | Performance | The system must support up to 1,000 concurrent users with a response time of less than 2 seconds. | High |
| NFR- 002 | Scalability | The application should handle a 50% increase in user traffic without requiring infrastructure changes. | Medium |
| NFR- 003 | Security | All sensitive customer data must be encrypted at rest and in transit using AES-256 encryption. | High |
| NFR- 004 | Availability | The system must ensure 99.9% uptime during business hours. | High |
| NFR- 005 | Maintainability | The codebase should allow for new feature implementation within 2 weeks of requirement gathering. | Medium |
| NFR- 006 | Cross-Platform Compatibility | The mobile application must be fully functional on Android 10+ and iOS 12+ devices. | High |

**C Requirement Traceability Matrix**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Req ID** | **Req Name** | **Req Description** | **Design** | **D1** | **T1** | **D2** | **T2** | **UAT** |
| FR0001 | Login | User must be able to log in to access the application  Securely. | Yes | Pending | No | Yes | Yes | Yes |
| FR0002 | Search Loan |  | Yes | Yes | Yes | Pending | Yes | Yes |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | User must be able to search for loan details using loan ID  Or customer ID. | |  | |  |  |  |  |  |
| FR0003 | | Calculate EMI | | System must calculate EMI  Based on loan amount, tenure, and interest rate. | | Yes | | No | Yes | Yes | Yes | Pending |
| FR0004 | | View Loan Status | | User must view the status of their home loan application. | | Yes | | Pending | No | Yes | Yes | Yes |
| FR0005 | | Upload Documents | | User must upload required documents for loan  Processing. | | Yes | | Yes | Yes | Pending | Yes | Yes |
| FR0006 | | Download Documents | | User must download previously uploaded  documents. | | Yes | | No | Yes | Yes | Yes | Yes |
| FR0007 | | Generate Loan Statement | | User must generate and view their loan statement for a  specific period. | | Yes | | Yes | Pending | Yes | Yes | Yes |
| FR0008 | | Notification Alerts | | System must send loan updates, EMI due dates, and  reminders. | | Yes | | No | Yes | Yes | Pending | Yes |
| FR0009 | | Loan Eligibility Check | | User must check loan eligibility using income and financial  details. | | Yes | | Pending | Yes | Yes | Yes | Yes |
| FR0010 | | Application Status | | System must update users about their loan application  status. | | Yes | | Yes | No | Pending | Yes | Yes |
| FR0011 | | Secure Payment Gateway | | System must allow users to make secure EMI payments. | | Yes | | Pending | Yes | Yes | No | Yes |
| FR0012 | | Loan Comparison  Tool | | User must compare loan options based on interest  rates and tenure. | | Yes | | Yes | Yes | Yes | Pending | Yes |
| FR0013 | | Profile Management | | User must view and update  profile details, including contact information. | | Yes | | No | Pending | Yes | Yes | Yes |
| FR0014 | | Customer Support Chat | | System must provide a chat  option for customer support queries. | | Yes | | Yes | Yes | No | Yes | Yes |
| FR0015 | | Logout | | User must log out of the application securely. | | Yes | | Yes | Yes | Pending | No | Yes |
| **Req**  **ID** | **Req Name** | | **Req Description** | | **Design** | | **D1** | | **T1** | **D2** | **T2** | **UAT** |
| NFR- 001 | Performance | | The system must support up to 1,000 concurrent users with a response time of less  than 2 seconds. | | High- performance server | | Done | | Pass | Pending | Pending | Not Done |
| NFR- 002 | Scalability | | The application should handle a 50% increase in user traffic without requiring infrastructure  changes. | | Cloud auto- scaling | | Done | | Pass | Done | Pass | Pending |

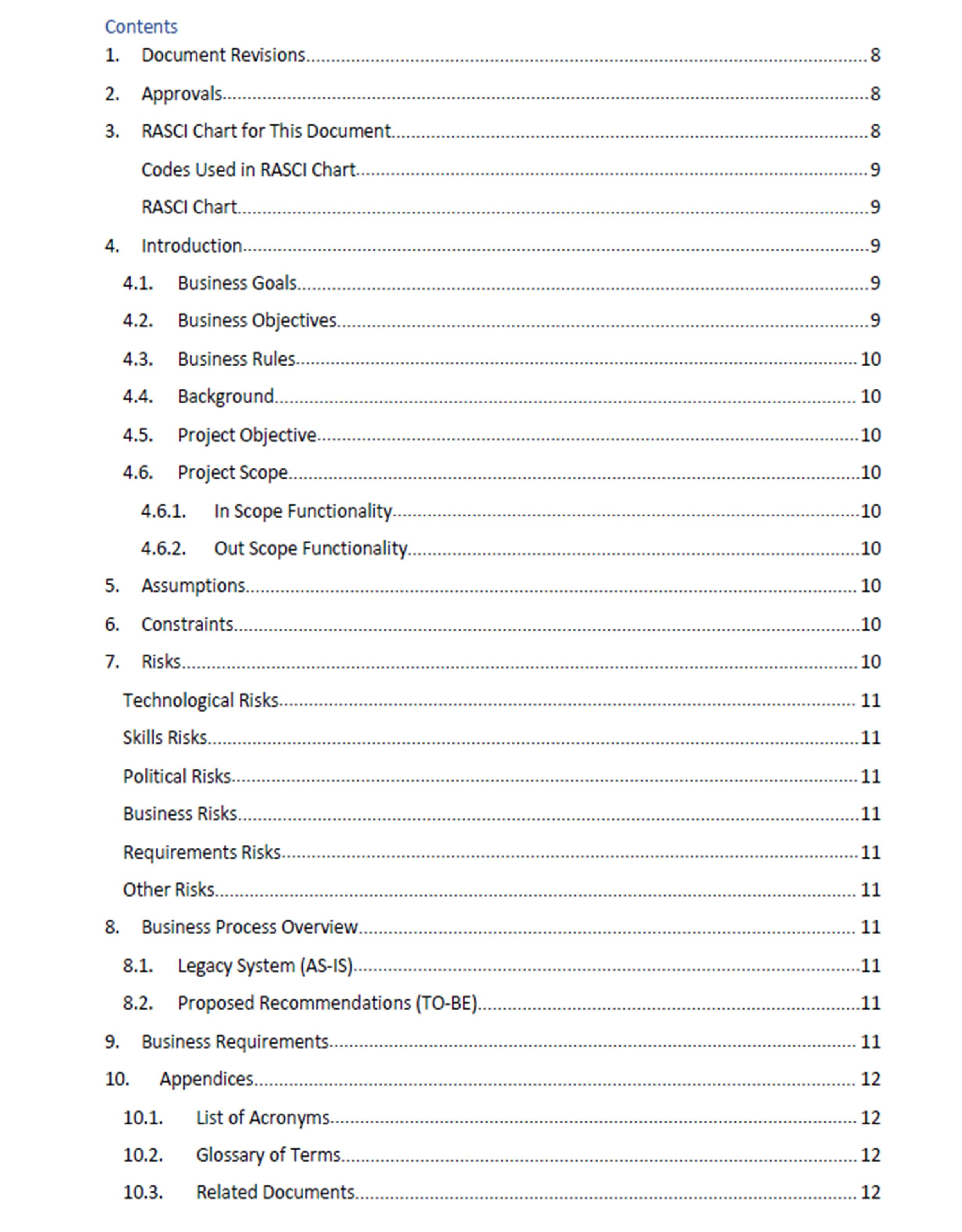
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NFR- 003 | Security | All sensitive customer data must be encrypted at rest and in transit using AES-  256 encryption. | Encryption framework | Done | Pass | Done | Pass | Pending |
| NFR- 004 | Availability | The system must ensure 99.9% uptime during business hours. | Load balancer setup | Done | Pass | Pending | Pending | Not Done |
| NFR- 005 | Maintainability | The codebase should allow for new feature implementation within 2 weeks of requirement  gathering. | Modular architecture | Pending | Pending | Pending | Pending | Not Done |
| NFR- 006 | Cross-Platform Compatibility | The mobile application must be fully functional on Android 10+ and iOS 12+  devices. | Cross- platform testing | Done | Pass | Done | Pass | Done |



PROJECT NAME: -

PROJECT ID: - P21231 VIRSION ID: 1.0.0

AUTHOR: - Mohammad Imran



1. **Document Revisions :-**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document Changes** |
| 1-Jul-21 | 1 | Initial draft of the Functional Requirements Document. |
| 5-Jul-24 | 1.1 | Added detailed requirements for Login and Dashboard modules. |
| 10-Jul-24 | 1.2 | Updated priority values and included traceability matrix. |

1. **Approvals :-**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| **Project Sponsor** | **Rajesh Sharma** | **Chief Technology Officer** |  | 1/7/2021 |
| **Business Owner** | **Priya Nair** | **Head of Digital Banking** |  | 1/7/2021 |
| **Project Manager** | **Anil Kumar** | **Senior Project Manager** |  | 2/7/2021 |
| **System Architect** | **Neha Verma** | **Lead System Architect** |  | 2/7/2021 |
| **Development Lead** | **Rakesh Iyer** | **Full Stack Developer** |  | 3/7/2021 |
| **User Experience Lead** | **Ananya Gupta** | **UX/UI Design Head** |  | 3/7/2021 |
| **Quality Lead** | **Prakash Mehta** | **Quality Assurance Lead** |  | 4/7/2021 |
| **Content Lead** | **Shruti Desai** | **Content Strategist** |  | 4/7/2021 |

1. **RACI Matrix :-**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **\*** | **R** | **A** | **S** | **C** | **I** |
| John  Smith | Project Sponsor | ✔ |  |  |  |  | ✔ |
| Priya  Sharma | Business Owner |  |  | ✔ |  | ✔ | ✔ |
| Rakesh Verma | Project Manager |  | ✔ | ✔ |  | ✔ |  |
| Aditi Deshmukh | System Architect |  |  | ✔ | ✔ |  |  |
| Suresh  Patel | Development  Lead |  | ✔ |  |  | ✔ |  |
| Megha Menon | UX Lead |  | ✔ |  | ✔ |  |  |
| Rahul  Tiwari | QA Lead |  |  |  | ✔ | ✔ |  |
| Neha Nair | Content Lead |  | ✔ |  | ✔ |  | ✔ |

1. **Introduction**

## Business Goals

* + - **Organization Goals & Needs**
      * Streamline the home loan application process.
      * Provide customers with an accessible, fast, and user-friendly solution.
      * Increase efficiency in loan processing and customer management.
      * Enhance customer satisfaction through a modern IT solution.

## : Business Objectives

* Seamless loan application process through mobile and web-based platforms & Real-time loan status tracking and updates.
* Smooth KYC and document management system.
* Loan eligibility and EMI calculation tools.
* Enhanced in-app customer support with chatbots and FAQs.
* Automated approval workflows to reduce processing time.
* Integration with HDFC’s core banking systems.
* E-Learning module for home loan awareness and financial planning.
* Secure and compliant system adhering to RBI and HDFC policies.

## Business Rules:

* + - **Organization Policies, Procedures, and Rules:-**
* Loan eligibility verification will adhere to **HDFC Bank's policies**.
* Interest rates and repayment schedules will comply with **RBI regulations**.
* Customers must provide all KYC documents (ID proof, income proof, property details) for loan approval.
* Privacy and data security measures will align with **GDPR and Bank IT Security Guidelines**.
* EMI payments will be processed as per bank-approved procedures.

## Background:-

* + - **Project Background**
* **History**:-
  + Increasing demand for digital solutions in the **home loan sector**.
  + Customer dissatisfaction with manual processes leading to delays and errors.

## Business Issues Identified:

* + Inefficient loan application workflows.
  + Lack of customer-friendly tools for loan tracking and processing.

## Expected Benefits:

* + Faster loan approvals and disbursements.
  + Enhanced transparency and customer experience.
  + Improved business scalability through digital transformation
  1. **Project Objective:-**
     + **Develop a seamless and scalable IT solution to digitize the home loan process.**
* **Key Features**:
  + Mobile app (Android & iOS) for loan application, EMI tracking, and document submission.
  + Integration of an **E-Learning Management System** for loan-related guidance.

## Aligning Objectives:-

* + Enhance customer accessibility and satisfaction.
  + Increase operational efficiency and reduce manual intervention.
  + Ensure smooth integration with existing HDFC Bank systems (CRM, Core Banking).

## Project Scope:-

* + - **4.6.1 In Scope Functionality**
* Mobile application for Android & iOS platforms.
* Loan eligibility calculator and EMI estimator tools.
* Customer onboarding and KYC document submission.
* Loan status tracking and notifications.
* E-Learning Management System for home loan education.
* Integration with backend loan approval systems.

## 4.6.2 Out of Scope Functionality

* Direct integration with third-party financial institutions.
* Post-loan recovery or foreclosure management.
* Mortgage insurance solutions.
* Advanced AI-based fraud detection systems

1. **Assumptions :-**

* Users will have access to a stable internet connection for application usage.
* Customers will possess necessary documents for loan processing.
* The system will integrate successfully with existing HDFC core banking systems.
* Mobile applications will be compatible with iOS and Android devices.
* Users will have basic knowledge of operating mobile and web applications.
* Regulatory requirements will remain stable during the project timeline.
* Adequate server infrastructure will be available to handle user load.
* Data security protocols will be implemented to safeguard user information.
* Stakeholders will provide timely inputs and approvals.
* Third-party services (e.g., for credit score checks) will function seamlessly.

1. **Constraints :-**

* Limited project budget allocated for development and deployment.
* Project must be completed within a set timeline to align with business goals.
* Strict adherence to regulatory and compliance standards in the home loan domain.
* Integration with existing HDFC Bank systems, which may have legacy system constraints.
* The mobile application must be compatible with a range of Android and iOS devices with different specifications.
* Data storage limitations for storing large amounts of user data and documentation.
* The system must adhere to the security guidelines for handling sensitive customer data.
* Limited availability of skilled resources in certain technical areas (e.g., mobile app development).
* External dependencies (e.g., credit score APIs) that may affect the development schedule.
* The need to ensure a seamless user experience across both web and mobile platforms.
* Budget constraints may limit the scope of additional features or enhancements.

1. **Risks**

## Technological Risks

* + - **Risk of system integration failures**: The challenge of integrating the new system with existing legacy systems might lead to delays or system incompatibilities.

**Strategy**: Mitigate by performing early technical assessments and ensuring compatibility before development.

* + - **Data security issues**: Handling sensitive customer data could expose the system to security breaches if not properly secured.

**Strategy**: Mitigate by implementing strong encryption, secure data access controls, and regular security audits.

## Skills Risks:-

* + **Lack of skilled resources for mobile app development**: The project may face delays if the team lacks proficiency in developing robust mobile applications for both Android and iOS platforms. **Strategy**: Mitigate by hiring experienced mobile developers and providing necessary training to the in-house team.
  + **Knowledge gaps in eLearning Management System (LMS)**: Insufficient expertise in building and integrating the LMS can delay development or impact functionality.

**Strategy**: Mitigate by involving experts in LMS early in the project and offering specialized training to the development team.

## Political Risks:-

* + **Changes in regulatory policies**: Shifts in government policies regarding home loans or fintech applications could affect project timelines and compliance requirements.

**Strategy**: Mitigate by staying updated with regulatory changes and having legal experts on the team to adapt the project to new rules.

* + **Government restrictions on data privacy**: Government regulations regarding data privacy (e.g., GDPR or local regulations) could restrict data collection or usage.

**Strategy**: Mitigate by ensuring the platform complies with data privacy laws and engaging legal consultants.

## Business Risks:-

* + **Project cancellation or delay due to market conditions**: Market changes or poor performance of existing products may lead to a shift in priorities, causing project delay or cancellation.

**Strategy**: Accept by planning for flexibility in project scope and timelines. Regularly assess market conditions and adjust deliverables.

* + **Loss of competitive advantage**: If the product development is delayed, competitors could launch similar products ahead of schedule.

**Strategy**: Mitigate by keeping the project timeline tight and using agile methodologies for quicker delivery and iteration.

## Requirements Risks:-

* + **Incorrectly captured customer requirements**: Misunderstanding or incorrectly capturing customer requirements for the home loan product could lead to project failure or unmet expectations.

**Strategy**: Mitigate by frequent customer feedback, validation of requirements through prototypes, and ensuring detailed documentation.

* + **Scope creep due to changing customer needs**: Continuous changes in business needs or customer expectations could result in scope creep, affecting project delivery.

**Strategy**: Mitigate by having a clear scope definition and establishing change control mechanisms.

## Other Risks:-

* + **Unforeseen technical issues during implementation**: Unexpected technical challenges during implementation could cause delays or system instability.

**Strategy**: Mitigate by setting up a robust testing environment, performing stress tests, and having a backup plan for critical issues.

* + **Vendor reliability issues**: Dependency on third-party vendors for certain software components or services might result in delays or issues if the vendor fails to deliver on time.

**Strategy**: Transfer the risk by including penalties in vendor contracts and having alternate vendors identified.

1. Business Process Overview

## Process Flow 1:- Initial Inquiry and Pre-Qualification

Customer can inquire about home loan eligibility and interest rates through online platforms, customer service channels, or by visiting an HDFC Bank branch.

## Process Flow 2:- Submission of Application Form

Customer completes and submits the home loan application form with personal and financial details.

## Process Flow 3:- Document Collection

Bank representative collects required documents: identity proof, income proof, property documents, etc.

## Process Flow 4:- Verification and Background Check

Bank conducts a thorough background check, verifying the applicant’s credit history and financial stability.

* **Process Flow 5 :- Property Evaluation :-** Bank arranges a physical inspection of the property, which includes
  + **Technical Evaluation: -** Assessing the structural integrity and condition of the property.
  + **Legal Evaluation: -** Verifying the legal status of the property, ensuring clear titles and Compliance with regulations.

## Process Flow 6:- Approval Process

Loan application is reviewed by the underwriting team, and if all criteria are met, approval is granted.

## Process Flow 7:- Offer Letter Issuance

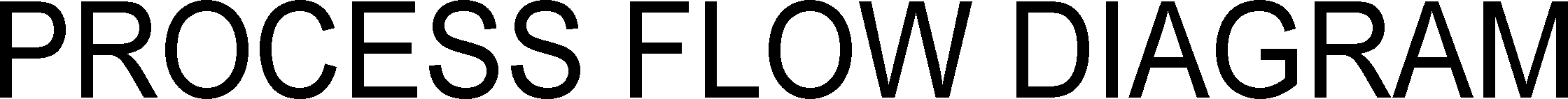
Bank issues an offer letter to the customer, outlining the loan amount, interest rate, tenure, and terms.

## Process Flow 8:- Acceptance of Offer and Agreement

Customer reviews, accepts the offer, and signs the loan agreement.

## Process Flow 9:- Disbursement of Loan

Bank disburses the loan amount to the customer's account or directly to the property seller's account.



* 1. **Legacy System (AS-IS) :-**

# Initial Inquiry and Pre-Qualification

* + Customer Inquiry: Inquiries made via phone, email, or in-person.
  + Pre-Qualification: Bank staff manually assessed eligibility based on initial customer details.
  + Challenges: Delays due to manual interactions and response time.

# Submission of Application Form

* + Application Form: Customers filled out forms physically or via email.
  + Data Entry: Staff manually input data into the system.
  + Challenges: Errors due to manual form submission and data entry.

## Document Collection

* + Document Submission: Customers submitted documents physically or by post.
  + Manual Verification: Bank staff verified documents manually.
  + Challenges: Loss of documents and delays.

## Verification and Background Check Credit Check: -

* + **Manual request for credit report.**
  + **Financial Stability Review:** Staff reviewed applicant’s financial stability manually.
  + **Challenges: Delays due to** reliance on paper-based verification.

## Property Evaluation:-

* + **Technical Evaluation**: Physical inspection of the property.
  + **Legal Evaluation**: Manual verification of property documents.
  + **Challenges**: Time-consuming and resource-intensive.

## Approval Process:-

* + **Underwriting**: Manual assessment by bank staff.
  + **Challenges**: Delays due to paperwork and multiple reviews.

## Offer Letter Issuance:-

* + **Preparation**: Offer letter prepared manually and sent by post.
  + **Challenges**: Delays in delivery and miscommunication.

## Acceptance of Offer and Agreement:-

* + **Offer Acceptance**: Customers visited branches for agreement signing.
  + **Challenges**: Inconvenience and delays due to in-person requirement.

## Disbursement of Loan:-

* + **Disbursement**: Manual initiation of fund transfer to customer or seller.
  + **Challenges: Delays due to manual processes and multiple approvals**
  1. **Proposed Recommendations (TO-BE) :-**

1. **Manual Inquiries:**
   * Challenge: Branch-only eligibility checks cause delays.
   * Solution: Online pre-qualification via real-time credit score integration.

## Paper-Based Applications:

* + Challenge: Lengthy, error-prone processes.
  + Solution: Digital application submission with automated data validation.

## Document Verification:

* + Challenge: Manual and time-consuming checks.
  + Solution: Secure document uploads with AI-powered validation.

## Property Evaluation:

* + Challenge: Disjointed technical and legal evaluations.
  + Solution: Centralized scheduling and digital tracking for evaluations.

## Approval Delays:

* + **Challenge:** Slow manual underwriting.
  + **Solution:** Automated credit checks and risk analysis using AI.

## Limited Updates:

* + **Challenge:** Poor customer communication.
  + **Solution:** CRM integration for real-time notifications.

## Paper-Based Agreements:

* + **Challenge:** Tedious manual contracts.
  + **Solution:** Paperless agreements using digital signature tools.

1. Business Requirements

## High-Priority functional Requirements:-

1. **Functional Area: Loan Application Process**
   * Requirement: Enable online application submissions with automated data validation.
   * Use Case Link: **[UC-001: Online Application Submission]**
   * Reference: Functional Specification Document, Section 3.1.

## Functional Area: Document Management

**Requirement:** Provide secure document upload with automated AI-powered verification.

## Use Case Link: [UC-002: Secure Document Upload]

* + **Reference:** Functional Specification Document, Section 4.2.

## Functional Area: Approval Workflow

**Requirement:** Automate credit risk analysis and approval processes using AI tools.

## Use Case Link: [UC-003: Credit Risk Assessment]

* + **Reference:** Data Flow Diagram, Appendix B.

## Medium-Priority Requirements

1. **Functional Area: Notifications and Updates**
   * **Requirement:** Send real-time updates to customers on loan application status through email and SMS.

## Use Case Link: [UC-004: Status Notifications]

* + **Reference:** CRM Integration Plan, Section 6.3.

## Functional Area: Property Evaluation

* + **Requirement:** Integrate technical and legal evaluations into a centralized digital system.

## Use Case Link: [UC-005: Property Evaluation Workflow]

* + **Reference:** Workflow Automation Design, Section 5.4.

## Low-Priority Requirements: - 1.Functional Area: User Interface (UI)

* + **Requirement:** Develop an intuitive, user-friendly mobile and web platform for loan applications.

## Use Case Link: [UC-006: UI/UX Design]

* + **Reference:** User Persona Document, Section 7.1

## Functional Area: Reporting and Analytics

* + **Requirement:** Generate monthly performance reports for operational insights.

## Use Case Link: [UC-007: Analytics Dashboard]

* + **Reference:** Data Analytics Framework, Section 8.2.

## High-Priority non Functional Requirements:

1. **Functional Area: Performance**
   * **Requirement**: Ensure system performance supports 10,000 concurrent users with a response time of

<3 seconds.

## Use Case Link: [UC-001: High Load Handling]

* + **Reference:** Performance Testing Report, Section 3.2.

## Functional Area: Security

* + **Requirement:** Implement two-factor authentication and encryption for all transactions.

## Use Case Link: [UC-002: Secure Authentication]

* + **Reference:** Security Compliance Checklist, Section 4.1.

## Functional Area: Availability

* + **Requirement:** Guarantee 99.9% system uptime with critical redundancy measures.

## Use Case Link: [UC-003: System Redundancy]

* + **Reference:** Availability and Recovery Plan, Section 5.3.

## Medium-Priority non Functional Requirements:-

1. **Functional Area: Scalability**
   * **Requirement:** System must scale to support a 50% annual increase in users.

## Use Case Link: [UC-004: Scalability Testing]

* + **Reference:** Scalability Design Document, Section 6.1.

## Functional Area: Compliance

* + **Requirement:** Adhere to RBI guidelines and GDPR data protection standards.

## Use Case Link: [UC-005: Regulatory Compliance]

* + **Reference:** Compliance Checklist, Section 7.4.

## Low-Priority non Functional Requirements :-

1. **Functional Area: Usability**
   * **Requirement:** Create an intuitive, user-friendly interface for web and mobile platforms.
   * **Use Case Link:** [UC-006: UI/UX Improvements]
   * **Reference:** User Persona Documentation, Section 8.5.

## Functional Area: Reporting

* + **Requirement:** Generate automated monthly performance and usage reports.
  + **Use Case Link:** [UC-007: Report Generation]
  + **Reference:** Reporting Framework Document, Section 9.3.

## Requirement Traceability Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | **Description** | **Priority** | **Use Case Link** | **Reference Material** |
| **FR-001** |  | Online application submission | High | UC-001:  Online Application | Functional Spec, Sec 3.1 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **FR-002** |  | Secure document upload | | High | | UC-002:  Secure Document Upload | | Functional Spec, Sec 4.2 |
| **FR-003** |  | Credit risk assessment | | High | | UC-003:  Credit Risk Assessment | | Data Flow Diagram, Appx B |
| **FR-004** |  | Real-time notifications | | Medium | | UC-004:  Status Notifications | | CRM  Plan, Sec 6.3 |
| **FR-005** |  | Centralized property evaluation | | Medium | | UC-005:  Property Evaluation Workflow | | Workflow Design, Sec 5.4 |
| **Requirement ID** | **Description** | | **Priority** | | **Use Case Link** | | **Reference Material** | |
| **NFR-001** | High system performance for 10,000 concurrent users with a response time of <3 seconds. | | High | | UC-001: High  Load Handling | | Performance Testing Report, Sec 3.2 | |
| **NFR-002** | Two-factor authentication and encryption for all transactions. | | High | | UC-002: Secure Authentication | | Security Compliance Checklist, Sec 4.1 | |
| **NFR-003** | Ensure 99.9% system uptime with critical redundancy measures. | | High | | UC-003: System Redundancy | | Availability and Recovery Plan, Sec 5.3 | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NFR-004** | Scalability to support a 50% annual increase in users. | Medium | UC-004:  Scalability Testing | Scalability Design Document, Sec 6.1 |
| **NFR-005** | Adherence to RBI guidelines and GDPR data protection standards. | Medium | UC-005:  Regulatory Compliance | Compliance Checklist, Sec 7.4 |
| **NFR-006** | Generate automated monthly performance and usage reports. | Low | UC-006: Report Generation | Reporting Framework Document, Sec 9.3 |

1. Appendices

## 10.1. List of Acronyms

1. **LTV -** Loan-to-Value Ratio
2. **ROI -** Rate of Interest
3. **EMI -** Equated Monthly Installment
4. **KYC -** Know Your Customer
5. **NOC -** No Objection Certificate
6. **CIBIL -**Credit Information Bureau (India) Limited
7. **FOIR -** Fixed Obligation to Income Ratio

## 10.2 Glossary of Terms

1. **Pre-EMI -** Interest paid only on the disbursed loan amount before the full loan disbursement.
2. **Margin Money -** The difference between the property value and the loan amount provided by the bank.
3. **Loan Tenure -** The period over which the borrower repays the home loan in EMIs.
4. **Processing Fee -** Non-refundable charges paid to the bank for processing the loan application.
5. **Disbursement** - The process of transferring the loan amount to the borrower or property seller.
6. **Sanction Letter -** A document issued by the bank confirming the approval of the home loan.
7. **Floating Rate -** An interest rate that varies based on market conditions, often linked to an external benchmark.

## 10.3 Related Documents

1. **Business Requirements Document (BRD)**
2. **Functional Requirements Specification (FRS)**
3. **Stakeholder Analysis Report**
4. **Data Flow Diagram (DFD)**
5. **Risk Management Plan**
6. **Project Plan/Timeline**
7. **User Acceptance Test (UAT) Plan**
8. **Requirement Traceability Matrix (RTM)**
9. **Functional Specification Document (FSD)**
10. **Non-Functional Requirements Document (NFRD)**

THE END