**Waterfall Model Documents**

**Document 1- Business case document template**

When initiating a project for loan and credit management analysis, several key factors need to be considered to understand its objectives, challenges, resource requirements, and expected outcomes. Here's an in-depth breakdown of the questions you posed:

**1. Why is this project initiated?**

This project is likely initiated to improve the efficiency, accuracy, and transparency of the loan and credit management processes, some of the main goals might include:

**Improving risk assessment**: to identify borrowers who are more likely to repay or default.

**Automating processes:** to reduce manual work, leading to cost savings.

**Enhancing decision-making**: with better data analytics, helping to provide faster, more accurate credit approvals.

**Ensuring regulatory compliance:** by maintaining accurate and up-to-date records of all loan and credit transactions.

**Customer experience improvement**: by offering more personalized and quicker loan services.

**2. What are the current problems?**

There could be several challenges in the current loan and credit management system:

**Manual processing**: The loan approval process may still be manual or paper-based, which can lead to delays, errors, and inefficiencies.

**Ineffective risk management**: Current systems may not have advanced algorithms or data analytics capabilities to predict the risk of a borrower defaulting, which could lead to financial losses.

**Lack of real-time data**: Without real-time data analysis, decisions are often based on outdated information, which can increase the chances of bad loans being issued.

**Fraud detection**: It might be hard to detect fraudulent applications and activities manually, resulting in financial losses.

**Customer dissatisfaction**: A slow, opaque, or cumbersome loan process can frustrate potential borrowers.

**Compliance risks**: The current systems might not be fully aligned with the latest regulatory requirements, leading to potential legal issues.

**3. with this project, how many problems could be solved?**

This project could address multiple issues:

**Process Automation**: By implementing automation, the project could significantly reduce manual effort, decreasing errors and improving processing speed.

**Risk Assessment Enhancement**: By introducing data analytics and machine learning models, it could better predict borrower risk and reduce the number of non-performing loans (NPLs).

**Improved Customer Experience**: The implementation of digital solutions would make it easier and faster for customers to apply for loans and get approvals.

**Compliance Management**: A well-designed system could ensure that all loans are compliant with relevant laws and regulations.

**Fraud Detection**: Using advanced algorithms for fraud detection and implementing KYC (Know Your Customer) measures could help in preventing fraudulent activities.

**4. What are the resources required?**

To successfully execute a loan and credit management analysis project, the following resources are typically needed:

**a. Technology**:

* Software development tools, including programming languages, frameworks, and databases.
* Machine learning or AI tools for risk assessment and fraud detection.

**b. Human Resources**:

**Project manager**: To oversee the implementation and integration process.

**Data scientists/analysts**: To develop predictive models and perform data analysis.

**Software developers**: To build and integrate the system.

**Compliance experts**: To ensure that the system adheres to regulatory guidelines.

**Customer service/relationship managers**: For handling customer inquiries and feedback.

**c. Financial Resources**: Funding for system development, implementation, and any necessary training or consulting fees.

**5. How much organizational change is required to adopt this technology?**

The level of organizational change required depends on the current systems in place. Potential changes could include:

**Process Redesign**: Existing workflows and manual processes would need to be re-engineered to accommodate the new system.

**Staff Training**: Employees may need to be trained on the new technology, including data analysis tools, new processes, and customer handling techniques.

**Cultural Shift**: If the company’s current culture is resistant to change or innovation, this may require efforts in change management to make employees comfortable with the new technology.

**New Roles**: The organization might need to introduce new roles or departments, such as data analytics or AI teams, to manage the new system and its outcomes.

**Infrastructure Changes**: The IT infrastructure may need to be upgraded to support new technology or platforms.

**6. Time frame to recover ROI (Return on Investment)?**

The time frame for recovering the ROI can vary depending on the scope of the project, but typical time frames might include:

**Short-term (1-2 years)**: This might be the time needed for automation and initial improvements in efficiency, resulting in cost savings from reduced manual labor, faster loan processing times, and increased loan volume.

**Medium-term (2-4 years)**: This could be when advanced analytics lead to better decision-making, fewer defaults, and higher profitability, as well as customer retention.

**Long-term (4+ years)**: In this phase, the technology might significantly transform business operations, leading to sustained competitive advantages and market growth.

**7. How to identify stakeholders?**

Stakeholders in a loan and credit management analysis project can include:

1. **Internal stakeholders**:

**Management**: Executives and department heads who oversee the strategic direction of the company and ensure that the project aligns with business goals.

**IT/Tech Teams**: Developers, engineers, and analysts responsible for building, maintaining, and operating the technology.

**Loan officers and under writers**: Employees directly involved in assessing and processing loans.

**Compliance officers**: Ensure that the new system complies with regulations.

**Customer service representatives**: Those who interact with clients and address issues.

1. **External stakeholders**:

**Customers (borrowers)**: The primary beneficiaries of improved loan and credit management systems.

**Regulatory authorities**: Entities that oversee and enforce financial regulations and compliance standards.

**Vendors/Partners**: Providers of any external services or technologies that are part of the system.

**Investors/Shareholders**: They have a financial interest in the success of the project and the company.

By identifying and engaging these stakeholders early in the project, the team can ensure smooth implementation and adoption of the new loan and credit management technology.

**Document 2: BA Strategy**

As a Business Analyst (BA) for a loan and credit management analysis project, it is crucial to follow a structured approach to ensure that the project aligns with business goals, meets client expectations, and is completed on time and within scope. Below is a comprehensive Business Analysis (BA) approach strategy for completing a project:

**1. Steps to Complete the Project**

 **a. Project Initiation & Planning**:

**Define Project Scope**: Understand the project's objectives, goals, and boundaries. Establish key deliverables and timelines.

**Understand Business Needs**: Analyze the current system and processes in place to identify pain points and improvement areas.

**Set Priorities**: Identify which business problems are most critical and prioritize accordingly.

 **B.Requirement Elicitation & Documentation**:

**Stakeholder Identification & Analysis**: Recognize all key stakeholders and their needs.

**Requirement Gathering**: Use elicitation techniques to gather functional and non-functional requirements.

**Document Requirements**: Create a detailed requirements document, including Business Requirements Document (BRD), Functional Requirements Specification (FRS), and Technical Requirements (if applicable).

1. **Design & Solution**:

**Create a Solution Approach**: Based on requirements, work with the technical team to outline a solution design.

**Prototyping (if needed)**: Build low-fidelity prototypes to validate concepts or business ideas with stakeholders.

 **d.Implementation**:

**Support the Development Team**: Collaborate with the development team to ensure that the solution meets requirements.

**E.Test Plans**: Develop and execute test cases based on requirements. This includes User Acceptance Testing (UAT) and functional tests.

 **f.UAT & Client Sign-Off**:

**Oversee UAT**: Ensure that the client participates in UAT testing, addressing feedback and changes.

**Get Final Approval**: Obtain formal sign-off from the client for project completion.

**2. Elicitation Techniques to Apply**

Elicitation is crucial for gathering the right information to ensure the solution meets the business needs. Some common elicitation techniques include:

**Interviews**: One-on-one discussions with stakeholders to gather detailed insights into their requirements and expectations.

**Workshops**: Group discussions and brainstorming sessions to identify needs and find solutions collaboratively.

**Surveys/Questionnaires**: Collect feedback from a larger audience, especially if stakeholders are spread across different locations.

**Document Analysis**: Review existing documentation such as current system specs, business process models, and compliance guidelines.

**Observation**: Understand processes by observing end-users and how they interact with the existing system.

**Prototyping**: Build mock-ups or prototypes of the future system to gain early feedback from stakeholders.

**Focus Groups**: Bring together key users or stakeholders to discuss ideas and concerns in a structured way.

**3. Stakeholder Analysis & RACI Model**

* The key components of business analyst is identifying the stakeholders and understanding their roles and responsibilities:
* The **RACI model** (Responsible, Accountable, Consulted, and Informed) helps clearly define and communicate roles:

**Responsible (R)**: Individuals who perform the work (e.g., Development team, Testing team).

**Accountable (A)**: The person who is ultimately accountable for the project or decision (e.g., Project Manager, Business Analyst).

**Consulted (C)**: Those whose opinions are sought (e.g., Subject Matter Experts, Users).

**Informed (I)**: Individuals kept updated on progress (e.g., Senior management, Clients).

**Stakeholder Analysis Steps**:

**Identify Stakeholders**: List all stakeholders (internal, external) involved in the project.

**Analyze Their Needs**: Understand what each stakeholder requires from the project.

**Create a RACI Matrix**: Based on the identified stakeholders, use the RACI model to assign roles to them in terms of project tasks.

**4. Documents to Write**

Key documents to create during the project include:

**Business Requirements Document (BRD)**: Details the high-level business goals, objectives, and success criteria.

**Functional Requirements Document (FRD)**: Specifies the functionalities needed in the system to meet business goals.

**System Requirements Specification (SRS)**: Contains technical requirements and the architecture needed for the system.

**Use Cases/User Stories**: Document specific functional scenarios the system must support.

**Test Plans & Test Cases**: Created for both Functional Testing and User Acceptance Testing (UAT).

**Change Requests**: If any changes occur, document the change request with impact analysis.

**Training Materials**: they are used to train the end-users on the new system and processes.

**Final Sign-off Documents**: Capture client approval for UAT and final project delivery.

**5. Process to Follow for Document Sign-off**

To ensure proper sign-off of documents:

**Document Review**: After drafting, review the document with stakeholders to ensure all aspects are captured.

**Request Feedback**: Share the document with relevant stakeholders (e.g., clients, subject matter experts) to get feedback and suggestions.

**Revision**: Based on feedback, revise the document.

**Formal Approval**: Once the document is final, circulate for formal sign-off via email or a dedicated project management tool (e.g., Jira, SharePoint).

**Archive the Document**: Once signed, store the document in the project repository for future reference.

**6. Approvals from the Client**

To obtain approval from the client:

**Share Deliverables**: Present completed deliverables (e.g., requirements document, prototypes, test plans) for review.

**Address Concerns**: Resolve any questions or concerns the client may have before moving forward.

**Obtain Formal Sign-off**: Send the document or deliverable with a request for formal sign-off. Use an official document or email chain for this, with a clear statement that indicates the client's approval.

**Confirm Acceptance**: Once the client signs off, confirm via email or project management software.

**7. Communication Channels to Establish & Implement**

Establishing effective communication channels is vital to project success:

**Email**: For formal communication and sending key documents.

**Project Management Tools (e.g., Jira, Asana and Trello)**: For tracking tasks, progress, and issues.

**Instant Messaging (e.g., Slack, Microsoft Teams)**: For quick communication and team collaboration.

**Video Conferencing (e.g., Zoom, MS Teams)**: For virtual meetings and discussions.

**Meetings**: Regular project meetings (weekly or bi-weekly) to discuss progress, issues, and risks.

**8. Handling Change Requests**

To manage change requests effectively:

**Document the Change**: Record the change request, including reasons and desired outcomes.

**Impact Analysis**: Analyze the impact of the change on scope, timeline, resources, and costs.

**Stakeholder Consultation**: Share the impact analysis with relevant stakeholders to get their input.

**Client Approval**: Ensure the client approves the changes before they are implemented.

**Update Documentation**: If approved, update relevant documents, such as the requirements document, project plans, and test cases.

**9. Updating Progress to Stakeholders**

To update stakeholders:

**Weekly/Monthly Reports**: Share a project status report outlining completed tasks, upcoming work, risks, and issues.

**Dashboards**: Use project management tools to create dashboards for real-time progress monitoring.

**Regular Meetings**: Hold regular meetings (e.g., sprint reviews or status calls) to discuss the project's progress and challenges.

**Escalation Process**: Set up a clear escalation process for any risks or issues that may impact timelines or quality.

**10. Sign-off on the UAT-Client Project Acceptance Form**

To obtain sign-off on the UAT (User Acceptance Testing) form:

**Schedule UAT Testing**: Ensure that the client performs UAT on the final system.

**Conduct UAT**: Gather feedback from the client during the UAT phase, addressing any issues or bugs that arise.

**UAT Feedback Resolution**: Implement fixes as necessary and communicate these changes to the client.

**Final Client Approval**: Once the client is satisfied, request the client to sign off the **UAT Client Project Acceptance Form** to formally accept the project as complete.

**Store Signed Documents**: Keep the signed acceptance form as part of the project documentation.

By following these steps, you’ll ensure that the project is handled efficiently, stakeholders are kept informed, and the end product aligns with business goals and client expectations.

**Document 3- Functional Specifications:**

|  |  |
| --- | --- |
| **PROJECT NAME** | Loan and credit management system |
| **CUSTOMER NAME** | ARAVIND |
| **PROJECT VERSION** | 1.0 |
| **PROJECT SPONSER** | SUNIL |
| **PROJECT MANAGER** | ANIL |
| **PROJECT INITIATION DATE** | 05-03-2025 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|

|  |  |  |  |
| --- | --- | --- | --- |
| **REQ ID** | **REQ NAME** | **REQ DESCRIPTION** | **PRIORITY** |
| **FR0001** | Login | User should be able to log in to the application to perform inventory operations and access loan management features. | **10** |
| **FR0002** |

|  |
| --- |
| Register New User |

|  |
| --- |
|  |

 | New users should be able to register by providing necessary details like name, email, phone number, and password. | **10** |
| **FR0003** | Forgot Password | Users should be able to reset their password if they forget it, by receiving a reset link via email. | **9** |
| **FR0004** | Loan Application | Users should be able to apply for a loan by entering their financial and personal details in the application form. | **8** |
|

|  |
| --- |
| **FR0005** |

|  |
| --- |
|  |

 | Loan Approval | The system should allow administrators to approve or reject loan applications based on predefined criteria and documents. | **7** |
|

|  |
| --- |
| **FR0006** |

|  |
| --- |
|  |

 | Loan Status Tracking | Users should be able to track the status of their loan application (e.g., Pending, Approved and Rejected). | **7** |
| **FR0007** | Loan Repayment Scheduling | The system should allow users to view and schedule repayment dates for their loans. | **8** |
| **FR0008** | Credit Score Check | Users should be able to check their credit score through the system, based on their financial history. | **8** |
| **FR0009** | Loan Repayment History | Users should be able to view their loan repayment history, including dates and amounts paid. | **10** |
| **FR0010** | Loan Notifications | Users should receive notifications regarding loan status updates, repayment due dates, and overdue payments. |  |

 |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Document 4- Requirement Traceability Matrix:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Req id** | **Req name** | **Req description** | **Design**  | **development** | **TEST CASES** | **UAT** | **COMMENTS** | **CONFIGURATION** |
| **Fr0001** | Login | User must be able to log in to access the application. | **D1** | **T1** | **T2** | **YES** | Functional requirement for user authentication | **yes** |
| **Fr0002** | Loan Management | system must allow users to view loan details | **D2** | **T3** | **T4** | **YES** | Functional requirement for loan analysis | **yes** |
| **Fr0003** | Credit Management | Users must be able to manage their credit information. | **D3** | **T5** | **T6** | **YES** | Credit analysis functionality | **yes** |
| **Fr0004** | Loan Application | Users must be able to apply for loans online. | **D4** | **T7** | **T8** | **YES** | Loan application process | **yes** |
| **Fr0005** | Credit Scoring | System should generate credit scores for loan applications. | **D5** | **T9** | **T10** | **YES** |

|  |
| --- |
| Integration with credit scoring systems |

|  |
| --- |
|  |

 | **yes** |
| **Fr0006** | Payment Integration | System must support payment gateway integration. | **D6** | **T11** | **T12** | **YES** |

|  |
| --- |
| Ensure payment processing during loan repayment |

|  |
| --- |
|  |

 | **yes** |
| **Fr0007** | User Profile | Users must be able to view and edit their profiles. | **D7** | **T13** | **T14** | **YES** | Manage user profile data | **yes** |
| **Fr0008** | Account Management | Users must be able to modify account settings. | **D8** | **T15** | **T16** | **YES** | Account settings modification functionality | **yes** |
| **Fr0009** | Data Security | All sensitive data must be encrypted. | **D9** | **T17** | **T18** | **YES** | Ensure encryption for security compliance | **yes** |
| **Fr0010** | Reporting | System must generate financial and loan reports. | **D10** | **T19** | **T20** | **YES** | Reporting functionality for financial analysis | **yes** |

**Contents**

 **1. Document Revisions .............................................................................................................17**

 **2. Approvals .............................................................................................................................17**

**3. RASCI Chart for This Document ............................................................................................18**

 **Codes Used in RASCI Chart ...................................................................................................18**

**RASCI Chart ..........................................................................................................................19**

 **4. Introduction .........................................................................................................................20**

 **4.1. Business Goals ..............................................................................................................20**

**4.2. Business Objectives .......................................................................................................20**

**4.3. Business Rules ............................................................................................................. 21**

 **4.4. Background................................................................................................................. 23**

 **4.5. Project Objective......................................................................................................... 23**

**4.6. Project Scope.............................................................................................................. 25**

**4.6.1. In Scope Functionality .......................................................................................... 26**

 **4.6.2. Out Scope Functionality ....................................................................................... 27**

**5. Assumptions ...................................................................................................................... 29**

**6. Constraints ......................................................................................................................... 29**

 **7. Risks................................................................................................................................... 30**

**Technological Risks ................................................................................................................ 31**

**Skills Risks .............................................................................................................................. 32**

**Political Risks ......................................................................................................................... 32**

**Business Risks ........................................................................................................................ 33**

**Requirements Risks ............................................................................................................... 33**

**Other Risks ............................................................................................................................ 34**

**8. Business Process Overview ................................................................................................ 35**

**8.1. Legacy System (AS-IS).................................................................................................. 37**

 **8.2. Proposed Recommendations (TO-BE) ......................................................................... 39**

**9. Business Requirements ...................................................................................................... 41**

 **10. Appendices ..................................................................................................................... 45**

**10.1. List of Acronyms ...................................................................................................... 45**

**10.2. Glossary of Terms .................................................................................................... 46**

**10.3. Related Documents................................................................................................ 47**

1. **Document Revisions:**

|  |  |  |
| --- | --- | --- |
| **DATE** | **VERSIONS NUMBER** | **DOCUMENT CHANGES** |
| 05/02/20xx | 0.1 | Initial Draft |
| 15/02/20xx | 0.2 | Added requirements for loan management. |
| 01/03/20xx | 0.3 | Updated design specifications for user login functionality. |
| 10/03/20xx | 0.4 | Modified UAT criteria for loan application feature. |
| 20/03/20xx | 0.5 | Corrected errors in the test cases for credit scoring. |
| 05/04/20xx | 0.6 | Added data encryption requirements. |
| 15/04/20xx | 0.7 | Updated reporting section to include new financial metrics. |
| 01/05/20xx | 0.8 | Revised user profile management specifications. |
| 10/05/20xx | 0.9 | Updated security protocols for payment gateway integration. |
| 20/05/20xx | 1.0 | Finalized document, implemented all required changes. |
| 01/06/20xx | 1.1 | Added final feedback from stakeholders and external reviewers. |

1. **Approvals:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title**  | **Signature** | **Date** |
| Project Sponsor | Name of sponsor | Sponsor title | signature | Approval date |
| Business Owner | Name of business owner | Owner title | signature | Approval date |
| Project Manager | Name | Manager title | signature | Approval date |
|

|  |
| --- |
| System Architect |

|  |
| --- |
|  |

 | Name | Architect title | signature | Approval date |
| Development Lead | Name | title | signature | Approval date |
| User Experience Lead | Name | title | signature | Approval date |
| Quality Lead | Name | title | signature | Approval date |
| Content Lead | Name | title | signature | Approval date |

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

Here's an explanation of **RACI** codes and how you can structure a RACI Chart for both Project Stakeholders (IT side) and Business Stakeholders (Client side) for the document.

**RACI Codes:**

* **R** (Responsible): The person who does the work to complete the task. There should be exactly one "R" assigned to each task.
* **A** (Accountable): The person who is ultimately accountable for the task and its completion. Only one person can be accountable for a task.
* **C** (Consulted): People who provide input or feedback on the task. These are often subject matter experts.
* **I** (Informed): People who need to be kept informed about the task’s progress or decision.
* **S** (Supports): Provides supporting services in the production of this document

**RACI Chart for Project Stakeholders ( IT Side):**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Task/Activity** | Project Manager | Business Analyst | IT Lead | Developers | QA Engineer | System Admin | Product Owner |
| Initial Draft Creation | **A** | **R** | **C** | **I** | **I** | **I** | **C** |
| Requirement Gathering & Analysis | **C** | **A** | **I** | **I** | **I** | **I** | **R** |
| Design Specifications | **C** | **C** | **A** | **R** | **C** | **I** | **I** |
| Development of Features | **I** | **C** | **A** | **R** | **I** | **I** | **C** |
| Testing & QA | **I** | **C** | **I** | **I** | **A** | **I** | **I** |
| Deployment preparation | **I** | **I** | **A** | **I** | **I** | **R** | **C** |
| Post-deployment support | **I** | **I** | **A** | **I** | **I** | **R** | **C** |
|  |  |  |  |  |  |  |  |

**RACI Chart Example for Client Side (Business Stakeholders):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Task / Activity | Business Stakeholder | Business Analyst | Product Owner | Client Project Manager | Client Technical Lead |
| Define project scope | **R** | **C** | **A** | **C** | **I** |
| Gather business requirements | **A** | **R** | **C** | **C** | **I** |
| Review technical solution design | **C** | **C** | **A** | **R** | **C** |
| Approve software deliverables | **A** | **C** | **C** | **R** | **I** |
| Test solution | **I** | **C** | **I** | **C** | **R** |
| Deploy solution | **I** | **I** | **A** | **R** | **C** |
| Post-deployment support | **I** | **I** | **A** | **R** | **C** |

**Explanation of the Chart:**

1. **IT Side (Project Stakeholders):** The IT side includes the project team members who are responsible for the technical execution, such as developers, QA engineers, and system administrators.

The project manager and business analyst play key roles in coordinating tasks and gathering requirements.

1. **Client Side (Business Stakeholders):** The client side involves business stakeholders who oversee the project's alignment with business objectives.

The client project manager, technical lead, and product owner play significant roles in providing approval, gathering requirements, and managing communications.

The **Business Analyst** works on both the IT and Client sides, acting as a liaison between both groups to ensure the business requirements are well-understood and the technical solution aligns with the business needs

**4. Introduction**

**4.1. Business Goals**
the organization aims to develop comprehensive IT solutions that streamline business operations, improve efficiency, and enhance customer experience.

The overarching goals are to provide innovative software solutions that address the needs of various business segments, including education, human resource management, and financial services.

These solutions are designed to meet the increasing demand for advanced technologies in diverse industries, ensuring seamless integration with existing systems and empowering businesses to operate at their highest potential.

The organization's needs include:

* Developing scalable, user-friendly mobile applications for Android and IOS platforms.
* Building a robust and flexible e-learning management system to facilitate online learning.
* Designing an HRMS solution focused on streamlining loan and credit management processes.
* Offering powerful analytical tools for better decision-making in credit management and HR operations.

**4.2. Business Objectives**
The primary business objectives are to develop the following functionalities through the software solutions:

1. **Mobile Application for Android and IOS:**

Design and develop a cross-platform mobile application that enables users to access services, resources, and tools from their mobile devices.

Features may include user profiles, notifications, document management, interactive dashboards, and real-time data access for seamless business interaction.

1. **E-Learning Management System (LMS):**

Create a platform to facilitate online education with tools for managing courses, content delivery, assessments, and student engagement.

Provide functionalities such as course creation, user registration, performance tracking, and real-time communication between instructors and learners.

1. **Human Resource Management System (HRMS) for Loan and Credit Management:**

Develop a comprehensive HRMS solution focused on loan and credit management within an organization.

Key features include loan and credit application processing, tracking repayments, employee eligibility calculations, approval workflows, and generating reports for better decision-making.

1. **Analysis Tools for Loan and Credit Management:**

Implement advanced analytics capabilities that help businesses make data-driven decisions regarding loan approvals, credit scores, and financial risks.

The analysis system will generate insights through data visualization, historical data analysis, and predictive analytics, improving the overall management and planning processes.

These objectives aim to address the unique needs of the organization while ensuring seamless functionality across all integrated platforms, ultimately enhancing operational efficiency and customer satisfaction.

**4.3. Business Rules**

The following business rules, policies, and regulations will govern the loan and credit management analysis system:

**Eligibility Criteria for Loan Applications:**

Employees must meet a minimum tenure requirement (e.g., 6 months with the company) to apply for loans.

Employees must have a minimum salary threshold to be eligible for specific loan types.

Only employees with no outstanding loans or defaults are eligible to apply for new loans.

Credit assessments will be based on predefined criteria such as salary, job position, repayment history, and tenure.

**Loan Approval Process:**

Loan applications will go through a multi-step approval process, including submission, eligibility verification, credit assessment, and final approval.

A loan officer will manually review applications that do not meet automatic approval criteria.

Employees with active loans may be restricted from applying for new loans based on repayment status and outstanding balances.

**Interest Rate Calculation:**

The system will apply a fixed interest rate based on predefined loan policies.

Interest rates will be calculated based on loan type and amount, with consideration for employee tenure and repayment history.

**Repayment Schedules:**

Repayments will follow fixed monthly installments with specific start dates.

Employees are expected to make timely payments according to the repayment schedule. Delayed payments may incur penalties as outlined by organizational policies.

**Data Privacy and Security:**

All employee financial and personal data will be handled in compliance with applicable privacy laws (e.g., GDPR, CCPA).

Access to sensitive loan data will be restricted to authorized users only, based on role-based access control.

**Credit Score Calculation:**

Credit scores will be calculated using pre-established internal criteria based on an employee's financial history with the organization, including past loans and repayment behavior.

**Loan Repayment Reminders:**

Employees will receive automated reminders for upcoming repayments and overdue payments via email and/or SMS.

**Loan Closure and Settlement:**

Once a loan is fully repaid, it will be marked as "closed," and the employee will receive a confirmation of loan settlement.

In cases of early repayment, the system will calculate any applicable adjustments or penalties.

**4.4. Background**

The project for developing the loan and credit management analysis system was initiated in response to several key business challenges:

**Lack of Automation in Loan Processing:**
The organization currently manages loan applications and credit assessments manually, which is time-consuming and prone to errors. This process requires significant administrative overhead and is often slow, leading to employee dissatisfaction and inefficiency.

**Inconsistent Loan Approval Decisions:**
With manual evaluations, there are inconsistencies in loan approval decisions, as different employees may interpret loan eligibility criteria in varying ways. This has led to confusion and mistrust among employees regarding the fairness and transparency of the loan process.

**Limited Visibility into Loan and Credit Data:**
There is a lack of integrated reporting tools to analyze loan portfolios, repayment trends, and employee credit history. This makes it difficult to forecast future loan demands, assess credit risks, or monitor the health of the loan portfolio.

**Manual Risk Assessment:**
Credit assessments are conducted manually, which limits the ability to quickly and accurately analyze large amounts of data, increasing the risk of making poor lending decisions.

The expected benefits of implementing the loan and credit management analysis system include:

* Streamlining and automating loan application and approval processes.
* Ensuring consistency and transparency in loan decisions.
* Providing real-time insights into loan portfolio performance and repayment trends.
* Reducing administrative overhead and operational costs.
* Enhancing employee satisfaction by providing faster loan processing and clear communication regarding loan status.

**4.5 Project Objective**

The **Project Objective** outlines the high-level goals of the project and describes how the new product will address the business objectives and interact with other systems.

**Overall Goal:** The goal of this project is to develop a comprehensive IT solution that improves HR processes, employee development, and access to critical organizational resources through a mobile application.

This solution will integrate Human Resource Management (HRMS), E-Learning (LMS), and Mobile App functionality into one cohesive system that enhances employee engagement, operational efficiency, and organizational growth.

**High-Level Description of What the Product Will Do:**

The Mobile Application will provide employees with easy access to HR and training systems, allowing for real-time updates on leave, payroll, training programs, and performance management.

The HRMS will streamline HR processes, including employee data management, payroll, leave management, recruitment, and performance tracking.

The LMS will offer employees access to a variety of training courses, certifications, and performance assessments, allowing for continuous learning and development.

**Alignment with Business Objectives:**

The mobile app ensures flexibility, allowing employees to access essential services anywhere and anytime.

The HRMS addresses operational inefficiencies by automating routine tasks like payroll and attendance tracking.

The LMS supports the goal of fostering employee development, making it easier to track progress and ensure all employees receive necessary training.

**Interaction with Other Systems:**

**Integration with Financial Systems:** The HRMS will integrate with existing financial systems to ensure payroll data is accurately processed and taxed.

**Integration with Communication Tools:** The mobile app will send notifications to employees about upcoming events, changes to their schedule, or other important updates related to HR and training.

**Cloud Hosting and Backup:** The entire system will be hosted on a secure cloud platform, ensuring scalability and secure data backup.

**4.6. Project Scope**

The following items will be developed in the current project for the loan and credit management analysis system:

**Loan Application Management:**

* Automated submission and approval workflow for employee loan applications.
* User-friendly interfaces for employees to apply for loans and track their status.

**Credit Scoring and Risk Assessment:**

* A module to assess employee creditworthiness based on internal criteria (e.g., salary, loan history, tenure).
* The ability to generate credit scores to guide loan approval decisions.

**Loan Approval Workflow:**

* A multi-step approval process that includes automated checks and manual intervention for complex cases.
* Role-based access control to ensure only authorized personnel can approve or reject loan applications.

**Repayment Tracking and Notifications:**

* Automated tracking of loan repayments.
* Reminders for upcoming payments and overdue loan alerts for both employees and HR staff.

**Reporting and Analytics:**

* Reporting tools to generate insights into loan approval trends, outstanding loans, repayment behaviors, and overall credit risk.
* Dashboards for loan officers and HR managers to monitor loan performance.

**Integration with HRMS:**

* Integration with the existing Human Resource Management System (HRMS) to pull employee data for loan eligibility assessment and credit scoring.

**Security and Compliance:**

* The system will ensure data security and comply with data privacy regulations, such as GDPR and local financial regulations.
* Role-based access controls and audit logs for transparency and accountability.

**4.6.1. In Scope Functionality**

The following functionalities will be developed and implemented in the current project for the Loan and Credit Management Analysis system:

**Loan Application Management:** Online loan application submission for employees.

.**Credit Scoring and Risk Assessment:**

* Automated credit scoring based on predefined criteria (e.g., salary, tenure, loan history).

**Loan Approval Workflow:**

* Multi-step loan approval process with automatic and manual decision-making stages.

**Repayment Schedule and Tracking:**

* Automated generation of loan repayment schedules (e.g., monthly installments).
* Real-time tracking of loan repayment status.

.**Loan Disbursement Tracking:**

* Tracking of loan disbursement to employees after approval.
* Status updates on loan disbursement timelines and amounts.

**Loan Portfolio Reporting and Analytics:**

* Real-time reporting tools to analyze loan portfolio performance, including outstanding loans and repayment trends.
* Customizable reports for HR and finance teams (e.g., loan approval rate, default rate, repayment progress).

**Integration with HRMS (Human Resource Management System):**

* Seamless integration with the existing HRMS to access employee data (e.g., salary, tenure, job position).
* Automated employee eligibility checks based on HRMS data for loan applications.

**Audit and Compliance Tracking:**

* Automated generation of audit logs for all loan-related activities (e.g., application submission, approval/rejection, repayment).
* Ensuring compliance with data privacy and financial regulations (e.g., GDPR, local financial laws).

**Employee Loan History Management:**

* Tracking and management of individual employees' loan history (e.g., active loans, repayment records, loan types).
* Providing employees with self-service access to view their loan status, outstanding balances, and repayment history.

Top of Form

Bottom of Form

**4.6.2 Out of Scope Functionality:**

The **Loan and Credit Management Analysis** functionality is **excluded** from the current project scope. The following details the reasons and specific aspects that are out of scope for this project:

**Loan Processing and Approval:**

* The system will not include functionality for processing employee loan applications or managing the loan approval workflows.
* No loan eligibility or credit scoring system will be implemented as part of this project.

**Credit Management Features:**

* Features for managing credit limits, credit utilization, or financial tracking of employee loans and credits are excluded.
* No system for automatic loan repayment scheduling, interest calculation or loan balance tracking will be developed.

**Integration with Financial Institutions:**

* The system will not integrate with external financial institutions or third-party credit providers for loan disbursement, management, or monitoring.
* There will be no connectivity with external credit reporting agencies for tracking credit scores or reporting financial behavior.

**Credit and Loan Reporting:**

* The ability to generate reports regarding loan balances, credit usage, or repayment schedules for employees will not be developed.
* Advanced financial analytics or credit risk analysis will not be a part of this project.

**Debt Management:**

* The system will not include functionality for debt collection or monitoring overdue payments related to employee loans or credit.

**Employee Financial Assistance Programs:**

* Any functionality related to managing employee financial assistance programs (such as grants, personal loans, or credit assistance) will not be included.

**5. Assumptions:**

* In the context of **Loan and Credit Management Analysis**, the following assumptions have been made for the system requirements, design, and implementation.
* These assumptions are based on the understanding that the functionality for loan and credit management analysis will not be part of the current project scope but may be considered in future phases.
1. Loan and Credit Analysis Exclusion
2. Integration with Financial Systems
3. User Access and Permissions
4. Regulatory Compliance
5. Data Accuracy and Availability
6. System Scalability
7. Employee Financial Privacy
8. Automated Loan Repayments
9. External Service Providers
10. Loan and Credit Approval Process

**6. Constraints**

In the context of **Loan and Credit Management Analysis**, the following constraints apply to the current scenario, especially as this functionality is excluded from the project scope at this stage

* Out of Scope for Current Project
* Budget and Resources
* Regulatory Compliance Constraints
* System Compatibility
* Data Availability and Accuracy
* Security and Privacy Constraints
* System Scalability for Loan and Credit Management
* Mobile Platform Constraints
* Time Constraints
* Change Management
* Financial System Constraints

**7. Risks**

For each risk, we will outline the **likelihood**, the **cost to the project**, and the **strategy** to handle the risk.

**Risk 1: Lack of Integration with Financial Systems**

**Likelihood:** Medium
**Cost to the Project:** High
**Impact:** If the loan and credit management functionality is added in the future, integrating with existing financial or accounting systems (e.g., payroll, accounting software) may be complex, time-consuming, and costly. Lack of proper integration could result in errors in data synchronization, incorrect financial records, or processing delays.

**Strategy:**

**Mitigate:** Ensure thorough planning for future integration points, including identifying and documenting APIs and data exchange methods in advance. Engage with internal teams and third-party vendors for early discussions on integration requirements.

**Avoid:** Avoid introducing complex loan features without clearly defined and tested integration protocols.

**Risk 2: Data Privacy and Security Concerns**

**Likelihood:** High
**Cost to the Project:** High
**Impact:** Loan and credit management features require handling sensitive employee financial data (e.g., credit scores, loan amounts). Breaches in data privacy or insufficient security measures could lead to legal implications, reputational damage, and loss of stakeholder trust.

**Strategy:**

**Mitigate:** Implement robust security measures, such as encryption, role-based access control (RBAC), and regular security audits.

**Risk 3: Insufficient Resource Allocation**

**Likelihood:** Medium
**Cost to the Project:** Medium
**Impact:** If resources are not properly allocated for loan and credit management features in the future (including financial analysts, software developers, and third-party service providers), there could be delays in delivering the necessary functionalities, which would affect the overall timeline.

**Strategy:**

**Mitigate:** Plan resource allocation early, ensuring that there is adequate time and budget reserved for any future expansion of the project scope, specifically related to loan and credit management.

**Avoid:** Avoid taking on additional tasks if the current project scope is already tightly constrained, and avoid delaying resource allocation for new phases.

**Risk 4: Delayed Feedback from Stakeholders**

**Likelihood:** Medium
**Cost to the Project:** Medium
**Impact:** Lack of timely feedback from **key stakeholders** (such as HR, finance teams, or external vendors) may delay the decision-making process, causing delays in the development of loan and credit management features or leading to misunderstandings about business requirements.

**Strategy:**

**Mitigate:** Establish clear communication channels and regular check-ins with stakeholders. Use a structured approach to gather, review, and address feedback throughout the project lifecycle.

**Avoid:** Avoid waiting until the end of the project to gather feedback. Continuous feedback ensures alignment with stakeholder expectations.

 **Risk Analysis**

This section provides an in-depth examination of the risks associated with the **Loan and Credit Management Analysis** project, including technological, skills, political, business, requirements, and other risks that could impact the success of the project.

**Technological Risks**

**Integration with Legacy Systems**

**Description:** The project may face challenges in integrating the new loan and credit management features with **legacy systems** (e.g., HRMS, LMS, payroll systems). Legacy systems often lack modern APIs or may not be designed to handle the complexities of financial transactions, creating integration hurdles.

**Impact:** High; could result in delayed timelines, budget overruns, or incomplete functionality if integration isn’t seamless.

**Mitigation Strategy:**

Engage in early-stage technical assessments to evaluate the feasibility of integrating new functionalities.

**Skills Risks**

**Shortage of Skilled Developers**

**Description:** The need for developers with specialized expertise in **financial systems**, **security protocols**, and **integration with third-party services** may lead to challenges in staffing the project.

**Impact:** High; without the necessary skills, the project could experience delays or failures in meeting business requirements.

**Mitigation Strategy:**

* Train internal staff in financial system development and relevant technologies before the project begins.
* Engage external consultants or specialists as necessary.

**Political Risks**

 **Changes in Government Regulations**

**Description:** Political changes or new **financial regulations** could impact the project’s scope, particularly around the handling of sensitive financial data (e.g., loan information, employee credit details).

**Impact:** Medium to high; regulatory changes may delay project timelines or require significant rework of features.

**Mitigation Strategy:**

Stay engaged with governmental bodies and financial regulators to keep track of any changes that may affect the project.

**Business Risks**

**Project Cancellation**

**Description:** The project could be canceled if it fails to meet business objectives, if the loan and credit management functionalities are deemed unnecessary, or if funding is pulled due to shifting business priorities.

**Impact:** High; cancellation would result in a loss of investment, time, and effort, and could lead to missed opportunities in addressing employee financial needs.

**Mitigation Strategy:**

Ensure clear business case development at the outset to show the project’s value.

Regularly communicate progress and potential business benefits to stakeholders.

**Requirements Risks**

 **Incorrect or Incomplete Requirements Gathering**

**Description:** The requirements for loan and credit management functionality may not be fully understood or documented, resulting in missed features or functionality that doesn’t meet business needs.

**Impact:** High; could lead to costly redesigns, scope changes, and delays if key requirements are discovered too late.

**Mitigation Strategy:**

* + Conduct thorough requirements workshops with stakeholders.
	+ Use user stories and use cases to clarify and validate requirements.

**Other Risks**

**User Resistance to New System**

**Description:** Employees may resist adopting the new loan and credit management features due to unfamiliarity, complexity, or fear of change.

**Impact:** Medium to high; low adoption could result in the failure of the project to achieve its intended benefits.

**Mitigation Strategy:**

* Implement a change management plan that includes clear communication, training, and support.
	+ Develop a user-friendly interface that simplifies navigation and encourages engagement.

**8. Business Process Overview**

**Phase 1: Requirement Gathering & Analysis**

**Objective:** Define the detailed requirements for the Loan and Credit Management Analysis features and ensure alignment with business goals.

**Key Activities:**

**Stakeholder Identification & Engagement:** Identify key stakeholders (HR, Finance, IT, Legal) and engage them early in the process.

**Requirements Workshops & Interviews:** Conduct workshops and one-on-one interviews with business users to gather functional and non-functional requirements for the loan and credit management system.

**Business Rules Definition:** Define business rules such as eligibility criteria for loans, credit scoring methodologies, interest rates, repayment schedules, etc.

**2. System Design**

**Objective:** Design the architecture and the system layout based on the requirements.

**Key Activities:**

Design the system architecture, ensuring scalability and performance to handle loan data processing and analysis.

Develop a detailed design for each module, including:

* Loan application management system
* Credit scoring and risk assessment tools
* Loan approval workflows
* Reporting and analytics tools
* Integration with HRMS

Create wireframes or UI mockups to illustrate how users will interact with the system.

**Outcome:** A detailed design document that includes system architecture, database design, user interfaces, and security protocols.

**3. Development**

**Objective:** Develop the loan and credit management system based on the approved design.

**Key Activities:**

Develop the core functionality for loan applications, credit scoring, repayment tracking, and loan approval workflows.

Build the integration with the HRMS for seamless access to employee data.

Implement reporting and analytics modules to track loan portfolio performance and repayment history.

Ensure user access control and compliance with data security standards (e.g., GDPR, financial regulations).

**Outcome:** A fully developed system, ready for the testing phase, meeting all functional requirements.

**4. Testing**

**Objective:** Test the system to ensure it meets the business requirements, is free of defects, and is ready for deployment.

**Key Activities:**

**Unit Testing:** Test individual components/modules for correct functionality.

**Integration Testing:** Ensure that the system integrates smoothly with the HRMS and other external systems.

**System Testing:** Test the overall system to ensure that all features (loan application, credit scoring, repayment tracking, etc.) work as expected.

**User Acceptance Testing (UAT):** Allow end-users (HR staff, loan officers, etc.) to test the system in a real-world environment to ensure it meets their expectations and needs.

**Security Testing:** Verify that the system complies with data privacy and security regulations.

**Outcome:** A fully tested system, with identified bugs fixed and user acceptance confirmed.

**5. Deployment**

**Objective:** Deploy the loan and credit management analysis system into the production environment.

**Key Activities:**

Deploy the system on the company’s servers or cloud infrastructure.

Migrate any necessary data (e.g., employee loan history) into the system.

Set up user accounts and access permissions for different stakeholders (loan officers, HR personnel, finance team, etc.).

Provide necessary training and documentation to ensure that users can effectively operate the system.

**Outcome:** A live system that is operational and accessible to end-users.

**6. Maintenance and Support**

**Objective:** Provide ongoing support and maintenance for the loan and credit management analysis system.

**Key Activities:**

* + Monitor the system for performance and any issues that arise post-deployment.
	+ Address any issues or bugs reported by users.
	+ Make periodic updates based on feedback, regulatory changes, or improvements (e.g., adding new loan types or analytics capabilities).

### ****8.1 Legacy System (AS-IS):****

#### ****Brief Explanation of the Process in the Legacy System****

In legacy systems for loan and credit management, the process typically involves manual, paper-based workflows or basic automated systems that manage the various stages of loan processing and credit management. Here's how the current (AS-IS) system typically works:

**Application Submission**:

Customers submit loan applications either physically (paper forms) or through basic digital forms.

**Data Entry**:

Loan officers manually input customer data into the system or into spreadsheets.

**Credit Assessment**:

Credit assessments are done manually or with rudimentary automated rules to check the customer’s creditworthiness (credit score, financial history, etc.).

**Loan Approval/Denial**:

Loan officers or management manually approve or reject loans based on the credit assessment.

**Document Generation**:

* Manual generation of loan agreements, terms, and conditions, often requiring multiple rounds of printing, signing, and filing.

**Loan Disbursement**:

Once approved, loan disbursement is done manually or via an outdated system, which can lead to delays.

**Repayment Tracking**:

Repayments are manually tracked, either through basic ledger systems or spreadsheets.

**Reporting**:

* Manual generation of reports for analysis and auditing purposes.

**Process flow diagrams:**



### ****8.2 Proposed Recommendations (TO-BE)****

#### ****Recommended Process and How the Proposed System Will Address Legacy System Challenges****

The proposed system aims to modernize and streamline the loan and credit management process by adopting a more automated, integrated, and efficient solution. Here are the steps involved in the TO-BE system and how it addresses the legacy system’s challenges:

**Online Application Submission**: Customers can submit applications through an online portal or mobile app, which automates data collection and validation. This eliminates the need for paper forms and manual data entry.

**Automated Data Entry**:

The proposed system uses automated data extraction tools (such as OCR or APIs) to capture data directly from the online forms, reducing human errors and the time spent on manual entry.

**Automated Credit Assessment**:

The system will use advanced credit scoring algorithms, integrating with third-party credit bureaus to assess a customer's creditworthiness in real-time. This speeds up the approval process and ensures more accurate credit decisions.

**Automated Loan Approval Workflow**:

The loan approval process will be integrated with automated workflows that route applications to appropriate decision-makers (e.g., loan officers, managers). Decisions can be automated based on pre-set rules, or flagged for manual intervention when necessary.

**Document Generation and E-signatures**:

The proposed system will automatically generate loan agreements and use digital signatures for approval, eliminating the need for manual printing and signing. This ensures faster turnaround times and better security.

**Automated Loan Disbursement**:

Loan disbursements will be processed automatically once a loan is approved, with funds transferred directly to the customer’s account using secure payment systems, ensuring quicker processing times.

**Automated Repayment Tracking**:

Repayments will be tracked automatically via the system, and customers will receive automated reminders about upcoming payments. The system will integrate with banking systems for real-time payment updates.

**Real-Time Reporting and Analytics**:

The new system will provide real-time reporting and analytics, enabling managers and decision-makers to access up-to-date data and make informed decisions. It will also be able to generate reports for regulatory compliance with ease.

### ****9. Business Requirements:****

In the proposed Loan and Credit Management System, business requirements have been categorized based on their priority and the area of functionality they address. This section outlines these requirements, which are based on inputs gathered from various stakeholders, including business owners, loan officers, IT teams, and end-users.

#### ****Business Requirements Traceability Matrix****

To ensure proper tracking and understanding of the requirements throughout the project lifecycle, a traceability matrix can be used to map each business requirement to its respective functional or non-functional specification. Below is a detailed breakdown of these requirements, with priority assignments and categorization into areas of functionality.

###  ****Functional Requirements****

#### ****1. Loan Application Submission****

**Description**: Customers must be able to submit loan applications through a web-based platform or mobile application.

**Priority**: High

**Area of Functionality**: Customer Interface, Application Process

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** | **Status** |
| FR-01 | Provide an online platform for loan applications | High | Pending |
| FR-02 | Allow customers to attach supporting documents | Medium | Pending |
| FR-03 | Enable mobile app access for loan application | High | Pending |

#### 2****. Automated Data Entry****

**Description**: The system should automatically extract data from online applications, reducing manual entry.

**Priority**: High

**Area of Functionality**: Data Processing, Automation

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** | **Status** |
| FR-04 | Use API integration to extract data | High | Pending |
| FR-05 | Validate extracted data for accuracy | High | Pending |

#### ****3. Credit Assessment & Scoring****

**Description**: Integrate with third-party credit bureaus to assess the creditworthiness of applicants.

**Priority**: High

**Area of Functionality**: Credit Processing, Decision Making

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** | **Status** |
| FR-06 | Integrate with external credit bureaus for scoring | High | Pending |
| FR-07 | Enable automated decision-making for loan approval | High | Pending |

#### ****4. Loan Approval and Workflow Automation****

**Description**: The system should allow automated or manual loan approval workflows based on predefined business rules.

**Priority**: High

**Area of Functionality**: Workflow Automation, Decision Support

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** | **Status** |
| FR-08 | Route applications to loan officers for approval | High | Pending |
| FR-09 | Implement configurable business rules for loan approval | High | Pending |

#### ****5. Loan Disbursement****

**Description**: The system should automatically trigger loan disbursement upon approval.

**Priority**: High

**Area of Functionality**: Payment Processing

|  |  |  |  |
| --- | --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** | **Status** |
| FR-12 | Initiate direct bank transfers for loan disbursement | High | Pending |

### ****Non-Functional Requirements****

#### ****1. Performance and Scalability****

**Description**: The system should be able to handle high volumes of loan applications without performance degradation.

**Priority**: High

**Area of Functionality**: System Architecture, Performance

|  |  |  |  |
| --- | --- | --- | --- |
| Requirement ID | Description | Priority | Status |
| NFR-01 | Handle up to 100,000 loan applications per day | High | Pending |
| NFR-02 | Ensure system uptime of 99.9% | High | Pending |

#### ****2. Security and Data Privacy****

**Description**: The system must comply with industry standards for data protection and secure handling of sensitive customer data.

**Priority**: High

**Area of Functionality**: Security, Compliance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** | **Description** |

|  |
| --- |
| **Priority** |

|  |
| --- |
|  |

 | **Status** |
| NFR-03 | Implement encryption for sensitive customer data | High | Pending |
| NFR-04 | Ensure system complies with GDPR and other data privacy regulations | High | Pending |

#### 3. ****Usability and User Experience****

**Description**: The system should be easy to use for both customers and internal users (loan officers, admin staff).

**Priority**: Medium

**Area of Functionality**: User Interface, Customer Experience

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** | **Description** |

|  |
| --- |
| **Priority** |

|  |
| --- |
|  |

 | **Status** |
| NFR-05 | Provide an intuitive user interface for customers | Medium | Pending |
| NFR-06 | Simplify loan officer dashboards for easy management | Medium | Pending |

### ****10. Appendices****

#### ****10.1. List of Acronyms****

Here is a list of acronyms used throughout the document related to the Loan and Credit Management System project:

|  |  |  |
| --- | --- | --- |
| **Acronym** | **Full Form** | **Description** |
| OCR | Optical Character Recognition | A technology used for automatically extracting text from scanned or digital documents. |
| API | Application Programming Interface | A set of rules that allow software applications to communicate with each other. |
| GDPR | General Data Protection Regulation | A regulation in EU law on data protection and privacy in the European Union. |
| NFR | Non-Functional Requirements | Requirements that define the operational characteristics of the system (e.g., security, performance). |
| FR | Functional Requirements | Requirements that define the specific functionalities the system must support. |
| UI | User Interface | The interface through which users interact with the system. |
| UX | User Experience | The overall experience of a user when interacting with the system or product. |
| SLA | Service Level Agreement | A contract between a service provider and a customer that outlines the expected service performance. |
| BPMN | Business Process Model and Notation | A graphical representation for specifying business processes in a workflow. |
| RPA | Robotic Process Automation | A technology used for automating routine tasks with software robots or bots. |

#### ****10.2. Glossary of Terms****

Here is a glossary of key terms used in the Loan and Credit Management System project:

|  |  |
| --- | --- |
| Term | Definition |
| Loan Application | A request submitted by a customer for a loan, containing personal and financial details to assess eligibility. |
|

|  |
| --- |
| **Credit Assessment** |

|  |
| --- |
|  |

 | The process of evaluating a borrower's creditworthiness, often through a credit score and financial history. |
| Loan Disbursement | The transfer of the approved loan amount to the borrower’s bank account or chosen disbursement method. |
| Repayment Schedule | A detailed plan showing when and how the loan will be paid back, including principal and interest. |
| E-Signature | A digital signature used to authenticate the identity of the signatory and consent to terms electronically. |
| Loan Officer | An individual responsible for reviewing loan applications, conducting assessments, and making decisions regarding loans. |
| Credit Bureau | An organization that collects and maintains financial information on individuals, which is used in credit assessments. |
| Business Rules | Defined rules or guidelines that dictate how the loan and credit management processes should be conducted. |
| Compliance | Adherence to laws, regulations, and guidelines to ensure the system meets legal and regulatory standards. |
| Disaster Recovery Plan | A strategy for recovering data, applications, and services in case of system failures or disasters. |

#### ****10.3. Related Documents****

The following documents provide further details and support the business requirements and development of the Loan and Credit Management System:

1. **Use Case Documentation**
This document contains detailed use cases, including system interactions, user stories, and expected system behaviors for different stages of the loan and credit management process.
2. **Functional Requirements Specification**
A comprehensive document listing all functional requirements for the system, outlining user needs and expectations for features like loan application processing, credit assessment, loan approval, and more.
3. **Non-Functional Requirements Specification**
A detailed document that describes non-functional aspects of the system, including performance, security, scalability, and user experience.
4. **System Architecture Design**
a document providing a high-level view of the system architecture, including hardware, software components, and how the system is structured to handle loan and credit management.
5. **Security Standards and Protocols**
a document outlining the security measures and protocols implemented in the system to protect sensitive data and ensure compliance with privacy laws such as GDPR.
6. **Disaster Recovery Plan**
This document explains the steps to be taken in case of a system failure or data breach, including backup strategies, data recovery, and ensuring business continuity.
7. **UI/UX Design Mockups**
Visual mockups and design guides showing the user interface and user experience for the Loan and Credit Management System, focusing on intuitive and accessible user interactions.
8. **Project Schedule and Timeline**
A project plan that outlines the phases, milestones, and deadlines for the development of the Loan and Credit Management System.
9. **Data Flow Diagrams and Process Flow Charts**
Diagrams illustrating the flow of data and processes involved in the loan application, approval, and disbursement cycles.
10. **API Integration Guide**
a guide to integrating third-party APIs for credit assessments, payment gateways, and other external systems that interact with the Loan and Credit Management System.
11. **Regulatory Compliance Guidelines**
A document providing an overview of the regulatory requirements that the Loan and Credit Management System must comply with, including financial regulations and data protection laws.

These appendices provide additional context and documentation to help ensure the successful development, implementation, and compliance of the Loan and Credit Management System.

Top of Form

Bottom of Form