Architecture Overview:

Components:

Front-end Interface:

Use Cases:

Bank Employee Interface:

Login: Bank employees log in using their username and password provided by the IT admin.

Verify Customer Details: Employees verify customer KYC details and gold loan application information.

Process Loan Application: Process loan applications, evaluate gold quality, and disburse loans.

View Application Status: View the status of loan applications and update application details.

End Customer Interface:

Login: End customers log in using their Google/Facebook accounts for single sign-on.

Apply for Gold Loan: Customers submit their KYC details and gold loan application through the interface.

View Application Status: Customers can view the status of their loan applications and accept/reject loan offers.

Back-end Server:

Use Cases:

Authentication and Authorization:

Authenticate bank employees and end customers.

Authorize access to different functionalities based on user roles.

Loan Application Processing:

Receive loan applications from customers and process them through various stages (verification, evaluation, disbursement).

Integrate with third-party services for KYC verification, gold evaluation, and bullion rates.

Data Management:

Store and manage customer data, loan applications, transaction records securely in the database.

Ensure compliance with data protection regulations and implement encryption for sensitive data.

Notification System:

Send notifications to customers regarding their application status, loan offers, and disbursement details.

Database:

Use Cases:

Data Storage:

Store customer information, loan application details, and transaction records securely.

Ensure data integrity and availability for efficient retrieval and processing.

Encryption and Access Control:

Encrypt sensitive data to protect against unauthorized access.

Implement access controls to restrict access to sensitive information based on user roles and permissions.

Integration Services:

Use Cases:

Third-party Integrations:

Integrate with eGovt Grid for KYC verification using Aadhaar, PAN Card, Passport, etc.

Connect with BSE for up-to-date bullion rates.

Validate PAN Card details for customer authentication and verification.

Non-functional Requirements (NFR):

Security:

Implement OAuth2 for secure authentication and authorization.

Secure storage and transmission of sensitive data.

Encrypt sensitive data in the database and enforce access controls.

Performance:

Ensure peak load performance during high traffic periods.

Maintain response times within acceptable limits for both e-commerce transactions and administrative tasks.

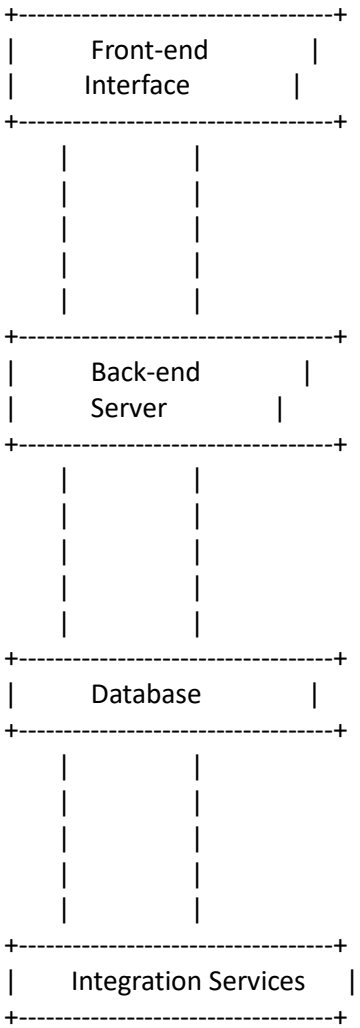
Availability:

Achieve high availability for customer-facing modules and bank applications.

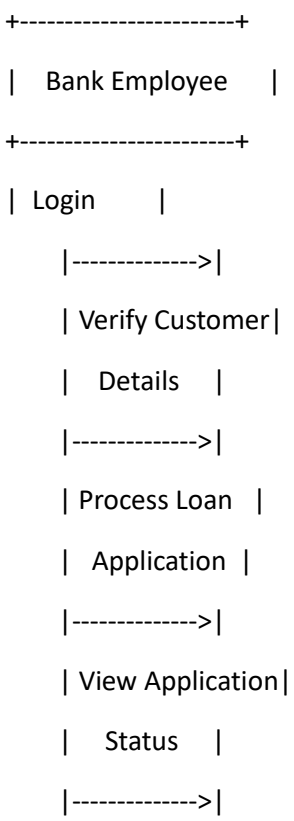
Implement failover mechanisms to minimize downtime and ensure continuous service availability.

Standard Features:

- Scalability to accommodate future growth and increased demand.
- Maintainability for easy updates and modifications to the system.
- Usability with an intuitive interface for both bank employees and end customers.



Use Case Diagram for Bank Employees:



Login:

Bank employees need to log in to the system using their credentials (username/password) provided by the IT admin. This use case represents the authentication process for accessing the system.

Verify Customer Details:

Once logged in, bank employees can verify customer details, including KYC (Know Your Customer) information submitted by customers for loan applications. This use case involves accessing customer data stored in the system and performing necessary verifications.

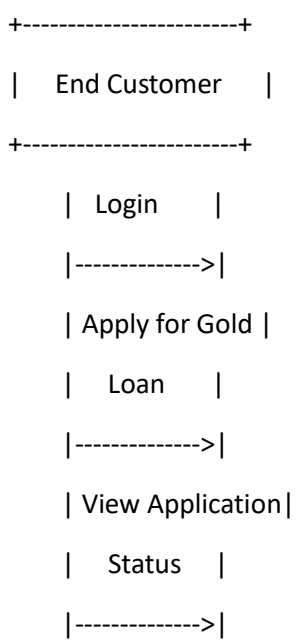
Process Loan Application:

Bank employees are responsible for processing loan applications submitted by customers. This includes evaluating the details provided in the application, verifying the authenticity of documents, and assessing the eligibility of customers for gold/silver loans.

View Application Status:

Bank employees can view the status of loan applications processed through the system. This use case allows employees to track the progress of applications, review pending tasks, and provide updates to customers as necessary.

Use Case Diagram for End Customers:



Login:

End customers need to log in to the system using their credentials. In this case, the login process may involve using external authentication providers such as Google or Facebook for single sign-on convenience.

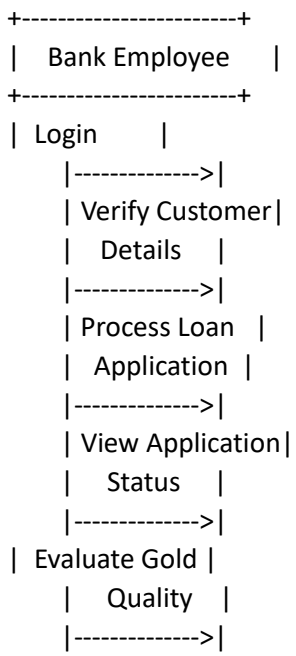
Apply for Gold Loan:

Once logged in, customers can submit applications for gold/silver loans through the system. This use case involves providing necessary personal information, KYC documents, and details about the gold ornaments they wish to pledge as collateral.

View Application Status:

After submitting a loan application, customers can track its status through the system. This use case allows customers to check whether their application is under review, approved, or rejected, providing transparency and visibility into the loan processing workflow.

Detailed Use Case Diagram for Bank Employees:



Detailed Use Case Diagram for End Customers: