**Bank of Maharashtra Mobile Banking Application Development**

### **Project Objective:**

To design and develop a secure, user-friendly mobile banking application that enables Bank of Maharashtra customers to access a wide range of banking services, including account management, transactions, loan services, and financial planning, directly from their smartphones.

### **Project Justification:**

With increasing digitalization, customers expect seamless access to banking services through mobile apps. This project aims to improve customer satisfaction, enhance service availability, reduce branch traffic, and support the bank’s digital transformation goals by introducing an intuitive and secure mobile banking solution.

### **Business Problem:**

Bank of Maharashtra’s current banking services are limited to traditional branches and an underperforming online banking portal, leading to lower customer engagement. The absence of a robust mobile banking platform is causing customer dissatisfaction and a high reliance on manual processes.

### **AS-IS State:**

* Customer services are primarily provided in branches or through an outdated web portal.
* Limited self-service options, requiring customers to visit branches for most banking needs.
* Delayed processing times due to manual workflows and physical documentation.
* Inconsistent customer experiences across different service channels.

### **TO-BE State:**

* A fully integrated mobile banking application providing customers with secure, real-time access to banking services such as balance inquiries, fund transfers, bill payments, loan applications, and investment tracking.
* Automated processes for banking transactions, minimizing manual intervention.
* Consistent user experience across digital platforms, leading to faster response times and improved customer satisfaction.
* Enhanced security features, including biometric authentication and two-factor verification.

### **Project Stakeholders:**

* **Internal:**
  + Project Sponsor: Chief Technology Officer (CTO), Bank of Maharashtra
  + Business Stakeholders: Branch Managers, Operations Teams, Customer Service
  + IT Teams: Development, Testing, IT Security, Database Management
  + Marketing Team
  + Compliance & Legal Teams
* **External:**
  + Customers (end-users)
  + External Vendors (third-party API service providers, security vendors)
  + Regulatory Bodies (e.g., RBI for compliance)

### **RACI Matrix:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activity** | **Responsible** | **Accountable** | **Consulted** | **Informed** |
| Requirements Gathering | Business Analyst (Radhika) | Project Manager | Operations, IT Security | Marketing, Compliance |
| System Design & Development | IT Development Team | CTO | Business Analyst, Vendors | Operations, Branches |
| Testing (UAT, Security) | QA Team | Project Manager | Business Analyst, IT Teams | Marketing, Compliance |
| Deployment | IT Operations | CTO | Vendors, QA Team | Customers, Branches |

### **Project In-Scope Use Case:**

* **Account Overview:** Viewing account balances, transaction history, and statements.
* **Fund Transfers:** Enabling real-time fund transfers, NEFT/RTGS, IMPS.
* **Bill Payments:** Paying utility bills, mobile recharges, and other services.
* **Loan Applications:** Simplified loan application process with real-time tracking.
* **Customer Support Chatbot:** Enabling a 24/7 AI-based customer support system.

### **Project Out-of-Scope Use Case:**

* **Wealth Management Services:** Not part of the initial release but planned for a future version.
* **Credit Card Services:** Handled through a separate application.
* **Investment Planning Tools:** Advanced tools like portfolio management are not included.

### **Business Requirements:**

* The mobile application should provide 24/7 availability to customers.
* Ensure real-time updates for transactions and balance inquiries.
* Support multiple languages for better customer outreach.
* Biometric login features to enhance security.

### **Functional Requirements:**

* The app should allow customers to register using their customer ID and mobile number.
* Users must be able to transfer funds between accounts or to other banks via NEFT/RTGS/IMPS.
* Provide a secure OTP and PIN-based transaction authorization process.
* Integration with the bank’s core banking system for real-time data updates.

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

* **Performance:** The app should handle up to 1 million concurrent users with minimal downtime.
* **Security:** Must adhere to RBI security guidelines, with features like SSL encryption, 2FA, and biometric login.
* **Usability:** The app should have a modern, intuitive design with accessibility features.
* **Scalability:** The system should accommodate additional features in future releases without performance degradation.

### **API Requirements:**

* Integration with the core banking system via REST APIs to fetch customer account details and transaction history.
* API connections to third-party services for bill payments and loan application tracking.
* Secure API for real-time fund transfers and OTP validation.

### **Integration Requirements:**

* The mobile app must integrate with the existing banking web services for a unified banking experience.
* Third-party services (utility bill payments, mobile recharges) should be integrated via secure API connections.
* The app should work seamlessly with other digital banking products like ATMs and internet banking.

### **Database Requirements:**

* Customer data, including personal details, account numbers, and transaction history, must be stored securely in compliance with regulatory standards.
* The database should support real-time syncing with the core banking system.
* Backup and recovery mechanisms should be in place for disaster recovery.

### **Transition Requirements:**

* Data migration from the existing web portal to the mobile app database.
* Employee training to assist customers in using the app.
* Phased rollout to avoid disruptions in customer service.

### **Data Dictionary:**

* **Customer\_ID**: Unique identifier for each customer.
* **Account\_Number**: The customer's bank account number.
* **Transaction\_ID**: Unique identifier for each transaction.
* **Balance**: The current available balance in the customer’s account.

### **Project Risks:**

* **Data Breach:** Risk of sensitive customer data being compromised.
* **Compliance Failures:** Failure to adhere to regulatory requirements can lead to legal repercussions.
* **Adoption Risk:** Low customer adoption due to poor user experience or technical issues.

### **Project Dependencies:**

* Dependency on third-party API providers for bill payments and mobile recharge services.
* Reliance on IT infrastructure updates to handle increased traffic.
* Coordination with marketing for customer onboarding.

### **Project Issues:**

* **Integration Delays:** Challenges in integrating third-party services may delay the launch.
* **Testing Failures:** Security vulnerabilities uncovered during testing could require extensive rework.

### **Project Constraints:**

* Limited budget for the project, impacting scope.
* Regulatory guidelines must be strictly followed, limiting design flexibility.

### **Project Assumptions:**

* Customers will have access to smartphones with updated operating systems.
* Internet connectivity will be reliable for app usage.

### **Glossary:**

* **NEFT/RTGS/IMPS**: Various methods of electronic funds transfer between banks.
* **2FA**: Two-Factor Authentication, a security process requiring two forms of verification.
* **SSL Encryption**: Secure Sockets Layer, a standard security protocol for encrypting data.

BUSINESS REQUIREMENT DOCUMENT

### **Project Name:**

**Bank of Maharashtra Mobile Banking Application Development**

### **Prepared by:**

**Radhika Joshi (Business Analyst)**

### **Date:**

October 2024

### **1. Project Overview**

#### **1.1 Project Objective:**

The objective of this project is to design and implement a mobile banking application that provides a seamless, user-friendly, and secure platform for Bank of Maharashtra customers to access a wide range of banking services. The goal is to enhance the customer experience, reduce reliance on physical branches, and provide customers with an efficient way to manage their accounts, make payments, and access additional banking services.

#### **1.2 Project Scope:**

This project includes the design, development, testing, and deployment of the mobile banking application. The scope encompasses the following use cases:

* **In-Scope Use Cases**:
  + Account overview and balance inquiries
  + Fund transfers (NEFT, RTGS, IMPS)
  + Bill payments and utility services
  + Loan application and tracking
  + 24/7 customer support via chatbot
  + Secure login (biometric and PIN-based authentication)
* **Out-of-Scope Use Cases**:
  + Advanced wealth management tools
  + Credit card-related services
  + Investment planning modules

#### **1.3 Project Deliverables:**

* A fully functional mobile banking application available for iOS and Android platforms.
* Integration with the core banking system to provide real-time data.
* User training materials and technical documentation.
* Security certifications in compliance with regulatory standards.

### **2. Business Problem**

Bank of Maharashtra’s customers rely heavily on branch visits for routine banking services due to the lack of a mobile banking application. This leads to long wait times, customer dissatisfaction, and inefficient service delivery. A mobile banking solution will allow customers to manage their finances with ease and efficiency, while reducing traffic at physical branches.

### **3. Business Requirements**

#### **3.1 Functional Requirements**

The following core functionalities will be required for the mobile banking application:

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Requirement Description** | **Priority** |
| BR001 | The app should support customer registration using a mobile number and customer ID. | High |
| BR002 | The app must allow customers to view real-time account balances and transaction history. | High |
| BR003 | Users must be able to initiate fund transfers (NEFT, RTGS, IMPS) between accounts. | High |
| BR004 | The app must support bill payments for utilities, mobile recharge, and other services. | Medium |
| BR005 | Customers should be able to apply for loans and track application status in real-time. | Medium |
| BR006 | Secure login via biometric authentication (fingerprint/face recognition) should be implemented. | High |
| BR007 | Provide customer support through an AI-powered chatbot available 24/7. | Medium |

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

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Requirement Description** | **Priority** |
| NFR001 | The app should handle up to 1 million concurrent users without performance degradation. | High |
| NFR002 | The app must ensure 99.9% availability with scheduled maintenance during off-peak hours. | High |
| NFR003 | Security features should comply with RBI guidelines, including SSL encryption and 2FA. | High |
| NFR004 | The app should support English, Hindi, and Marathi to cater to the bank’s customer base. | Medium |

### **4. Stakeholders**

The following stakeholders are involved in the project:

* **Internal Stakeholders**:
  + **Project Sponsor**: Chief Technology Officer (CTO)
  + **Project Manager**: IT Development Lead
  + **Business Teams**: Customer Service, Operations, Marketing, Compliance
  + **IT Teams**: Development, Database Management, Testing, Security
* **External Stakeholders**:
  + Customers (end-users)
  + Third-party service providers (API integration for bill payments, biometric services)
  + Regulatory bodies (RBI)

### **5. AS-IS State**

Currently, Bank of Maharashtra customers rely on branch visits for most banking services, leading to inefficiencies and delays. An outdated online banking portal exists but offers limited functionality, lacks user-friendliness, and does not support mobile access or advanced features.

### **6. TO-BE State**

In the future state, the Bank of Maharashtra mobile banking application will provide an all-in-one solution for customers to manage their banking activities, from balance inquiries and fund transfers to bill payments and loan applications, all through a secure and intuitive mobile interface.

### **7. Use Case Details**

#### **7.1 Use Case 1: Account Overview**

|  |  |
| --- | --- |
| **Use Case Name** | **Account Overview** |
| Description | Customers can view their account balance and transaction history in real-time. |
| Actors | Customer (Primary), Core Banking System (Secondary) |
| Pre-condition | Customer is logged into the app. |
| Post-condition | Customer is able to view real-time balances and transaction history. |
| Trigger | Customer clicks on the "Account Overview" option. |

#### **7.2 Use Case 2: Fund Transfers**

|  |  |
| --- | --- |
| **Use Case Name** | **Fund Transfers** |
| Description | Customers can initiate fund transfers using NEFT, RTGS, or IMPS. |
| Actors | Customer (Primary), Core Banking System, Payment Gateway |
| Pre-condition | Customer is logged into the app and has sufficient funds. |
| Post-condition | Funds are transferred successfully between accounts. |
| Trigger | Customer initiates a fund transfer request. |

### **8. API Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| **API ID** | **API Description** | **Source** | **Priority** |
| API001 | Fetch account details, including balance and transaction history, from core banking system. | Core Banking System | High |
| API002 | Perform secure fund transfers using NEFT/RTGS/IMPS between accounts. | Payment Gateway | High |
| API003 | Integrate third-party services for bill payments and mobile recharges. | External Vendors | Medium |

### **9. Integration Requirements**

The mobile application will integrate with the following systems and services:

* **Core Banking System** for account information and transaction management.
* **Third-party payment services** for bill payments and mobile recharges.
* **Biometric authentication systems** for secure user login.

### **10. Database Requirements**

The database will store the following key information:

* **Customer Data**: Customer\_ID, Account\_Number, Contact Information
* **Transaction Data**: Transaction\_ID, Amount, Date, Transaction\_Type
* **Loan Data**: Loan\_ID, Application\_Status, Loan\_Amount, Repayment\_Schedule

### **11. Transition Requirements**

* Data migration from existing web portal databases to the mobile application.
* Training of staff on new application features and support processes.
* Phased rollout starting with pilot users, followed by general availability.

### **12. Risks, Issues, and Dependencies**

#### **12.1 Risks:**

* **Data Breach Risk**: Unauthorized access to sensitive customer data.
* **Integration Risk**: Delays in API integration with third-party vendors.
* **Adoption Risk**: Customers may face a learning curve in adapting to the new application.

#### **12.2 Dependencies:**

* Timely availability of APIs from third-party services.
* Security and compliance approval from regulatory bodies (RBI).

#### **12.3 Issues:**

* **Testing Failures**: Delays caused by unanticipated testing failures, particularly security vulnerabilities.

### **13. Assumptions and Constraints**

#### **13.1 Assumptions:**

* Customers will have access to modern smartphones with internet connectivity.
* The bank’s existing IT infrastructure will support the required performance levels for mobile banking.

#### **13.2 Constraints:**

* The application must comply with RBI security guidelines, which may limit design flexibility.
* The project budget is fixed, impacting the scope of features in the initial release.

### **14. Glossary**

* **2FA**: Two-Factor Authentication for enhanced security.
* **NEFT/RTGS/IMPS**: Different electronic payment methods.
* **SSL Encryption**: Standard protocol for securing data transmission.

SOFTWARE REQUIREMENT SPECIFICATION

### **Project Name:**

**Bank of Maharashtra Mobile Banking Application Development**

### **Prepared by:**

**Radhika Joshi (Business Analyst)**

### **Date:**

October 2024

### **1. Introduction**

#### **1.1 Purpose:**

This SRS outlines the functional and non-functional software requirements for the development of the **Bank of Maharashtra Mobile Banking Application**. The document is intended for use by the development team, testing team, and all other stakeholders involved in the project to ensure a clear understanding of the technical requirements.

#### **1.2 Scope:**

The mobile banking application will allow Bank of Maharashtra customers to perform a variety of banking activities such as viewing account details, making fund transfers, paying bills, applying for loans, and interacting with customer support. The application must ensure high security and ease of use while integrating with the bank’s core banking system and external third-party services.

#### **1.3 Definitions, Acronyms, and Abbreviations:**

* **2FA**: Two-Factor Authentication
* **API**: Application Programming Interface
* **NEFT**: National Electronic Funds Transfer
* **RTGS**: Real-Time Gross Settlement
* **IMPS**: Immediate Payment Service
* **OTP**: One-Time Password
* **UAT**: User Acceptance Testing
* **SSL**: Secure Sockets Layer (Encryption Protocol)

#### **1.4 References:**

* Bank of Maharashtra BRD for Mobile Banking Application
* RBI Security Guidelines

### **2. Overall Description**

#### **2.1 Product Perspective:**

The **Bank of Maharashtra Mobile Banking Application** will be a standalone mobile application with integrations into the bank's existing core banking system. It will interface with third-party APIs for services such as bill payments and mobile recharges. The application will be available on iOS and Android platforms.

#### **2.2 Product Functions:**

* Account balance inquiry
* Transaction history viewing
* Fund transfers (NEFT, RTGS, IMPS)
* Bill payments and mobile recharge services
* Loan application and status tracking
* Secure login via biometric authentication
* 24/7 customer support via chatbot

#### **2.3 User Characteristics:**

* **Primary Users**: Bank of Maharashtra customers who have savings or current accounts with the bank.
* **Secondary Users**: Bank staff responsible for customer support.
* **Technical Expertise**: Users are expected to be familiar with mobile applications but may have limited technical skills.

#### **2.4 Constraints:**

* The application must comply with RBI security and compliance regulations.
* It should operate on Android 5.0 and above, iOS 12.0 and above.
* The project has a fixed budget, limiting the scope of advanced features for the initial release.

#### **2.5 Assumptions:**

* Customers will have reliable internet access while using the application.
* Necessary APIs and services from third-party providers will be available and function correctly.

### **3. System Features**

#### **3.1 Feature 1: Account Overview**

##### **3.1.1 Description:**

The application should allow users to view their account balances and transaction history in real-time.

##### **3.1.2 Functional Requirements:**

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** |
| FR001 | Users must be able to log in securely using biometric authentication (fingerprint or face ID) or PIN. | High |
| FR002 | Users should be able to view the current balance for their savings or current accounts. | High |
| FR003 | Users should be able to view up to 6 months of transaction history, including debits and credits. | Medium |
| FR004 | Users should be able to download or email account statements directly from the app. | Low |

##### **3.1.3 Non-Functional Requirements:**

* **Performance**: The balance inquiry should complete within 3 seconds.
* **Usability**: Account information should be displayed clearly with intuitive navigation.
* **Security**: All account data must be encrypted using SSL protocols.

#### **3.2 Feature 2: Fund Transfers**

##### **3.2.1 Description:**

Users should be able to transfer funds between their accounts and to other accounts using NEFT, RTGS, or IMPS.

##### **3.2.2 Functional Requirements:**

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** |
| FR005 | The application must allow users to transfer funds between their own accounts and third-party accounts. | High |
| FR006 | Users should be able to add and manage beneficiary accounts. | Medium |
| FR007 | The system should use OTP-based validation to authorize all fund transfers. | High |
| FR008 | The application should notify users upon successful or failed transactions. | High |

##### **3.2.3 Non-Functional Requirements:**

* **Availability**: The fund transfer feature should be available 24/7 with 99.9% uptime.
* **Latency**: Transactions should be processed within 5 seconds for IMPS and 30 minutes for NEFT/RTGS.
* **Security**: Transactions should be secured with two-factor authentication and SSL encryption.

#### **3.3 Feature 3: Bill Payments**

##### **3.3.1 Description:**

The application must provide an option for users to pay utility bills, recharge mobile services, and handle other regular payments.

##### **3.3.2 Functional Requirements:**

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** |
| FR009 | The app should integrate with third-party APIs for bill payments and mobile recharges. | Medium |
| FR010 | Users should be able to view and select from predefined biller categories (e.g., utilities, telecom). | Medium |
| FR011 | The app should provide real-time confirmation of bill payment success or failure. | Medium |

##### **3.3.3 Non-Functional Requirements:**

* **Performance**: Bill payments should be completed within 10 seconds after user confirmation.
* **Security**: Bill payment transactions must be authenticated with an OTP or secure PIN.
* **Scalability**: The system should support at least 100,000 bill payment transactions per hour.

#### **3.4 Feature 4: Loan Applications**

##### **3.4.1 Description:**

The app should allow users to apply for loans and track the status of their applications.

##### **3.4.2 Functional Requirements:**

|  |  |  |
| --- | --- | --- |
| **Requirement ID** | **Description** | **Priority** |
| FR012 | Users must be able to apply for personal loans, home loans, and vehicle loans directly through the app. | Medium |
| FR013 | Loan application forms should auto-fill customer information based on account details. | Medium |
| FR014 | Users should be able to track the status of their loan application and receive real-time updates. | Medium |
| FR015 | The app should notify users about any additional documents or steps required during the application process. | Medium |

##### **3.4.3 Non-Functional Requirements:**

* **Availability**: The loan application feature should be available 24/7.
* **Usability**: Forms should be simple, with the ability to save and resume an application.
* **Security**: Loan application data must be encrypted and stored securely.

### **4. External Interface Requirements**

#### **4.1 User Interfaces:**

* The app must have a clean, responsive interface compatible with both iOS and Android devices.
* The dashboard should prominently display key features like account overview, fund transfers, bill payments, and loan applications.
* Navigation should be intuitive, with large buttons and easy-to-read text for various age groups.

#### **4.2 Hardware Interfaces:**

* The app should support Android devices with version 5.0 and above, and iOS devices with version 12.0 and above.
* The app should support biometric authentication through device fingerprint or face ID sensors.

#### **4.3 Software Interfaces:**

* The app must integrate with the bank's core banking system via REST APIs for real-time data synchronization.
* It must interface with third-party payment services for utility bill payments and recharges.

#### **4.4 Communication Interfaces:**

* The app must communicate with backend services over secure HTTPS protocols with SSL encryption.
* All sensitive data exchanged between the app and servers must be encrypted and compliant with RBI guidelines.

### **5. System Attributes**

#### **5.1 Performance:**

* The system should handle up to 1 million concurrent users with minimal impact on performance.
* The app should process transactions within industry-standard response times (e.g., NEFT transactions completed within 30 minutes).

#### **5.2 Security:**

* All user data must be encrypted both in transit and at rest.
* Secure login mechanisms such as 2FA and biometric authentication must be implemented.
* OTP-based authentication should be required for all financial transactions.

#### **5.3 Reliability:**

* The system must achieve 99.9% uptime with regular backups and disaster recovery plans.
* Scheduled maintenance should be communicated to users in advance, and downtime should be minimal.

#### **5.4 Usability:**

* The app must have an intuitive user interface that is accessible to all customer segments, including those with limited technical proficiency.
* The app should support Hindi, English, and Marathi languages for user accessibility.

#### **5.5 Scalability:**

* The app architecture must be scalable to accommodate additional features in the future without significant performance degradation.
* The backend should be able to handle at least 500,000 transactions per hour.

### **6. Other Requirements**

#### **6.1 Data Management:**

* All data must comply with RBI guidelines on data protection and storage.
* Customer data, including account details, personal information, and transaction history, must be stored securely in a centralized database.

#### **6.2 Audit and Monitoring:**

* All financial transactions must be logged for auditing purposes.
* The app must have real-time monitoring for security threats and intrusion detection.

### **7. Appendices**

#### **7.1 Glossary:**

* **NEFT**: National Electronic Funds Transfer.
* **RTGS**: Real-Time Gross Settlement.
* **IMPS**: Immediate Payment Service.
* **SSL**: Secure Sockets Layer, a standard security technology for establishing an encrypted link between a server and a client.
* **2FA**: Two-Factor Authentication, requiring two forms of identification for user authentication.

USER STORY AND ACCEPTANCE CRITERIA

### **User Story 1: Account Overview**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **view my account balance and transaction history** so that I can monitor my finances in real-time.

#### **Acceptance Criteria:**

* Given that the user is logged in, when they access the "Account Overview" screen, they should be able to:
  + View their current account balance.
  + View a list of transactions for the last 6 months, including debits and credits.
* The account balance should refresh in real-time as transactions are made.
* The account history should display transaction details such as date, amount, transaction type (debit/credit).
* Users should be able to download their transaction history as a PDF or email it to themselves.
* The response time for loading the balance and transaction history should not exceed 3 seconds.
* All sensitive data must be encrypted during transit and at rest.

### **User Story 2: Secure Login with Biometric Authentication**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **log into the mobile app using biometric authentication (fingerprint or face ID)** so that I can access my account securely and conveniently.

#### **Acceptance Criteria:**

* Given that the user has enabled biometric authentication, when they open the mobile app, they should be prompted to authenticate using their fingerprint or face ID.
* If biometric authentication is successful, the user should be logged into their account without entering their PIN or password.
* In the event of authentication failure (e.g., incorrect fingerprint), the user should be prompted to enter their PIN to log in.
* The biometric login process must comply with security standards (SSL encryption and device-level security).
* Users should have the option to disable biometric login in their account settings.

### **User Story 3: Fund Transfers**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **transfer funds between my accounts or to another account using NEFT, RTGS, or IMPS** so that I can manage my finances and pay others easily.

#### **Acceptance Criteria:**

* Given that the user is logged in, they should be able to initiate a fund transfer from the "Fund Transfer" menu.
* The app should support the following transfer methods: NEFT, RTGS, IMPS.
* The user should be able to add a new beneficiary by entering details such as the account holder’s name, account number, and IFSC code.
* The user must authenticate the transaction using OTP sent via SMS or email.
* Upon successful transfer, the user should receive a notification with the transaction details.
* If the transfer fails, the user should see an error message with the reason for failure.
* The fund transfer process should not take more than 5 seconds for IMPS and up to 30 minutes for NEFT/RTGS.
* All fund transfer transactions must be logged in the user’s transaction history for future reference.

### **User Story 4: Bill Payments**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **pay my utility bills and recharge my mobile** so that I can manage my regular payments from a single platform.

#### **Acceptance Criteria:**

* The user should be able to select from predefined categories of billers (e.g., utilities, mobile recharge, DTH).
* The user should be able to add a biller by entering their customer ID/account number.
* The app must integrate with third-party APIs to handle payments to billers.
* After payment, the user should receive a confirmation notification with the payment details (amount, date, and biller name).
* If the payment fails, the app should notify the user and provide an option to retry.
* The payment processing time should not exceed 10 seconds after user confirmation.
* All bill payments should appear in the user’s transaction history.
* Security measures (OTP and PIN) must be implemented for payment confirmation.

### **User Story 5: Loan Applications**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **apply for personal, home, or vehicle loans through the mobile app** so that I can track my loan application and get approval faster.

#### **Acceptance Criteria:**

* Given that the user is logged in, they should be able to access the "Loan Applications" section from the app menu.
* The loan application form should be pre-filled with the user’s basic information (name, address, contact details) retrieved from their account.
* The user should be able to select the type of loan (personal, home, vehicle) and enter the loan amount and duration.
* The app should validate the user’s eligibility (credit score, account balance, etc.) in real-time based on bank-defined criteria.
* The user must be able to upload necessary documents (e.g., salary slips, identity proof) directly through the app.
* Once the loan application is submitted, the user should receive a confirmation and an expected timeline for approval.
* The user should be able to track the status of their loan application and receive updates (e.g., document required, approved, rejected).
* All loan data must be securely stored and transmitted, complying with RBI guidelines.

### **User Story 6: Customer Support via Chatbot**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **use a chatbot for customer support** so that I can resolve common issues or inquiries 24/7 without calling the bank.

#### **Acceptance Criteria:**

* The user should have access to a chatbot available on the app’s main dashboard.
* The chatbot should assist with basic inquiries such as account balance, transaction status, and fund transfers.
* The chatbot should be able to escalate issues to human support agents if the query cannot be resolved.
* The user should receive a reference number for all escalated cases.
* The chatbot should be available in English, Hindi, and Marathi, based on the user’s language preference.
* The response time for the chatbot should not exceed 3 seconds.

### **User Story 7: Secure Login via PIN and OTP**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **log into the mobile app using a PIN and OTP** so that my account is protected against unauthorized access.

#### **Acceptance Criteria:**

* Upon logging in, the user must enter their 4-digit PIN.
* After entering the PIN, the app must send a one-time password (OTP) to the user’s registered mobile number or email for verification.
* The user must successfully enter the OTP to complete the login process.
* If the OTP is incorrect or expires, the app should allow the user to request a new OTP.
* All login attempts should be logged for security auditing purposes.
* The user should have the option to reset their PIN through an OTP-based verification process.

### **User Story 8: Language Support**

#### **User Story:**

As a **Bank of Maharashtra customer**, I want to **use the app in my preferred language (English, Hindi, Marathi)** so that I can easily navigate and use all features in a language I understand.

#### **Acceptance Criteria:**

* Upon first use, the user should be able to select their preferred language from English, Hindi, and Marathi.
* All screens, menus, and error messages should be displayed in the selected language.
* Users should be able to change their language preference at any time from the app settings.
* The language change should reflect immediately without requiring a restart of the app.
* The chatbot and customer support interfaces should also switch to the selected language.