Application Design (Mobile Apps)

Registration Service Flow

* Fill Registration Data :
  + Field Name : Free Text (will be compared with data KTP)
  + Place of Birth : Free Text
  + Date of Birthh : Calendar Box
  + Any other data that need to collected base on business and technical requirements
* Input Email : If Already Registered -> Your email already registered , please use other email or login with your existing email (Unique – penjagaan Back End) – With Validation email format (Regex)
* Input No HP : If Already Registered -> Your Phone Number already registered, please use other phone number or login with your existing Phone Number (Unique - penjagaan Back End) – Provided dropdown country code with default value +62 and field (trigger Numeric Keyboard)
* Upload KTP : when button clicked there will be pop up for choose upload from Camera (take photo) or Upload from gallery (Requesting for permission to access gallery) , Size should be limited (depends on the system requirement, usually maximum around 250kbs-500kbs) – if File Size larger than Maximum -> Error , file size exceeded Maximum Limit, please upload file max $maxSize kbs, validation for format (Invalid Format can’t Uploaded) - (Front End Validation)
* Upload Foto : when button clicked there will be pop up for choose upload from Camera (take photo) or Upload from gallery (Requesting for permission to access gallery) , Size should be limited (depends on the system requirement, usually maximum around 250kbs-500kbs) – if File Size larger than Maximum -> Error , file size exceeded Maximum Limit, please upload file max $maxSize kbs, validation for format (Invalid Format can’t Uploaded) - (Front End Validation)
* Upload Selfie with KTP (If necessary) : when button clicked there will be pop up for choose upload from Camera (take photo) or Upload from gallery (Requesting for permission to access gallery) , Size should be limited (depends on the system requirement, usually maximum around 250kbs-500kbs) – if File Size larger than Maximum -> Error , file size exceeded Maximum Limit, please upload file max $maxSize kbs, validation for format (Invalid Format can’t Uploaded) - (Front End Validation)
* Button Continue (Enabled If all requirement filled) – Click - redirected to screen Password Configuration

Password Configuration – User required to input password for the Email/No Hp User with some validation

* + Minimum Length (In Line Error when Length < Minimum, button submit disabled)
  + Maximum Length (There is two choice for validation)
    - In Line Error when Length > Maximum, Button Submit Disabled
    - Limit the field to maximum length (ex : if maximum password length is 16 Characters, then user only able to type max 16 characters, any characters after that will not recorded on field) – For the Password type style – recommend last character on password will visible to user while the rest typed password will be masked (ex : maximum length is 4 and user type ”Word”, then will be appeared as
      * W
      * \*o
      * \*\*r
      * \*\*\*d
      * When user try to input additional character after d , display will not changed (if there is information about maximum length – can be highlighted red for 2-3s then back to normal) so user can notice there is rules for maximum length to improve user experience and reduce human error
    - Rules for Uppercase and Lowercase (checklist box rules) O Capital Letter O Small Letter
    - Rules for minimum 1 Special Character (Checklist box rules)
    - Then additional field for confirm password (retype – if not match with password on field1, button submit disabled, checklist box beside additional field not checked)
  + After submitted , user required to input OTP sent to Email or Phone Number (as additional verification)
    - If OTP Didn’t Match – In Line error when submit under field OTP (Invalid OTP) – can be limited to 3 times to prevent brute force (Customer will be redirected back to first page to start from beginning) – Since its still on registration phase, advanced restriction such as preventing registration on same session still unnecessary
    - There is button for resend OTP (If clicked will be disabled for 20-30s) to prevent double click
    - If OTP Match, then data registration will be stored to Database and parallel send request to core apps (Core banking) for Customer Information File (CIF) Creation and Credentials
  + There will be information for user that data is on Process and will be notified to registered Email / Phone Number when Finished (User will be able to login)

Login Service Flow

* If User choose login with Password , can be filled with Registered Email / No. HP, when submitted – check to login service for existing user credential stored on Database
  + If no email or Phone Number match – In line error User Credential didn’t match
  + (if Email or No.HP Match then compare password from client with password stored on Database (Encrypted - User Management Service table)
    - If Password didn’t match – In Line error User Credential didn’t match
    - If password match – Login success – Redirected to Landing Page
* If user choosing to login with biometric -> System run Detection on Existing Biometric Login Configuration availability
  + For first time login or Login with biometric still not enabled on settings, there is information should login with Password Method and enable Biometric Login and completed the configuration (back to screen login)
  + If Exist , User required to run scan for the biometric such as fingerprint, face recognition, or any other (base on design)
    - If Doesn’t match, Error – Biometric cant recognized, please try again
    - If Match, Success Login
* Forgot Password : Link Reset Password will be sent to Registered Email or Phone Number (Will be valid for $time dari pertama kali di trigger)
  + Enter New password, New Password Confirmation, Submit (Following Application Security Requirement – validation)
* If Account Blocked – Pop Up Account Blocked, please contact Customer Service

Auto Logout

User will be auto logged out when idle more than token expiration time ($minutes – minutes), this process able to happen in entire flow of the Apps, as long user don’t have any activity in period of time. There will be Pop Up for renewal token 30s before token expired (User will be forced to logout).

Landing Page after Login (Home)

Salutation, $name

* For First Time Login will be redirected to PIN Transaction Settings to Set PIN

PIN should be 6 Digits Numeric (Masked) – there will be reconfirmation after Submit PIN (user need to reinput pin ) –

* + If Doesn’t Match, back to step 1 – Set up Pin, then reconfirm again
  + If Match – PIN Set up finished , redirected back to landing Page
* Loan Status Detail
  + If there is no Active Loan – Button Apply Loan Available (Click will be Redirected to Form – Apply Loan)
  + If there is Loan with status : Submitted – Application in Progress with Loan Detail (Button Apply Loan will not available)
    - Date Submission, Disbursement Account, Amount, and Tenor
    - Information , there will be notification to registered Email/Phone Number when Status Updated
  + If there is loan with status : Rejected – Detail Rejected Loan will be displayed and Button Apply Loan will be available
    - Date Rejected, Disbursement Account, Amount, and Tenor
    - Information, Unfortunately your application not approved, You can try to Submit new Application or Contact Our Customer Service for further Information
  + If there is loan with status : Completed (Outstanding Amount = 0) – Detail Completed Loan will be displayed and Button Apply Loan will be available
    - Date Loan Approved, Amount, and Tenor
  + If there is loan with status : Active ( Approved ) – Information : Congratulations your application already Processed with Loan Detail Displayed – Button Apply Loan will not available
    - Date Loan Approved, Disbursed to Account, Amount, tenor, Installation Per Month, next billing Date, outstanding, information how to pay

Logout : User able to Logout from Home / Landing Page (Clear Token and Session)

Apply Loan Flow

Form Loan Application Page

1. Field Detination Account , on Click :

* Displayed List Bank – Recommendation (commonly used ex: Bank Mandiri,etc)
* field Search Bank – Filter Result base on keywords from User (Search Function can be referred from filtered - List of Value (Login KeyMatch) or Search Engine Service if available
* Button X for cancel

- If User Click any of Bank , Continue to Rekening Inquiry , Input No Tujuan Rekening, and click to Check Destination Account

- If no Destination Match – In Line error – Destination Number is Invalid, please Input the Correct Account Number

- If Match – Displayed Name of Recepient, Button Submit enabled (if clicked - Back to Loan Application Form page with Disbursement Account filled with Name – Bank – No Account)

2. Field Amount (On Click, trigger keyboard Number), with validation :

* Minimum Amount (If required – if not fulfilled button submit disabled)
* Maximum Amount ( as requirement will be set to max 12 Million Rupiah) – If User Input 12.000.001 (Error, Amount exceed Maximum Amount permitted – Button Submit Disabled)
* Rules Multiplication (ex : 1 Million, so amount permitted will be 1mil, 2mil, 2,1 or 2,2 will not permitted If Not fulfilled – Error : Only permitted with multiplication $Amount – Button Submit Disabled)
* If implemented using available limit systen then maximum Amount will be checked also base on limit available , ex : Limit available 10mil, even though Maximum Amount Limit is 12 mil, user only able to Apply 10mil Loan) – Additional Milestone

3. Field Tenor : Choice (1 Months, 3 Months, 6 Months, 12 Months) with information interest rate per Months

After Tenor Selected, there will be information about Estimation Installation Per Months base on Tenor Calculation (Amount / Tenor + Interest per Months)

4. Check list for Loan Application Terms and condition (Must be checked – if not button submit disabled)

5. Button Continue / Next (If Clicked will be redirected to confirmation Page)

Confirmation page

Information Transaction Details :  
  
 - Destination Account

- Amount Applied

- Selected Tenor

- Estimation instalation per Month after Interest

- Admin Fee (If available – will deduct disbursement amount)

- Button Submit Apply Loan

- If Clicked Submit , User Required to Input PIN Transactions (with option to reset PIN – to **Reset PIN** Flow)

- If PIN not Match, In Line Error Invalid PIN with additional Information Count of Error (Your PIN Invalid, sisa 2 Kesempatan mencoba)

- If PIN Invalid more than 3 times, Pop Up Account Blocked, force logout, redirected back to login page

- If PIN Match, Transaction will be executed and redirected to Receipt page

Receipt Page

* Status Submition (Success Submit , In progress – if timeout, or Failed – if there is error from Server)
* Date and Time transaction executed (ex : 06 September 2022, 23:59)
* Reference Number (ex : MDR 123456)
* Disbursement Account : $bankName - $accountNumber
* Loan Nominal : $loanAmount
* Tenor : (ex : 12 Months)
* Admin Fee (If available, Deduct disbursement amount)
* Information your application has been submitted and will be Processed soon, Application Status will be updated to Registered Email / Phone Number
* Button Done (if Clicked – Redirected to Landing Page, with Detail Pinjaman : Submitted – On Progress Approval)

Reset PIN Flow – Accessible from PIN Transactions stages

* User required to input OTP (Sent to registered Email/Phone Number) to initiate Reset
  + If OTP Invalid – Error – 3 Times Error – Account Blocked
  + If OTP Valid – Input new PIN – Reconfirm Input New PIN

Profile Page

Change Password Flow – Accessible from Profile Page

* User Required to input Old Password
  + Information : You can Change your password here, you will be logged out when finished, please note account will be blocked if you are Input Wrong Password 3 Times
  + If Password Invalid – Error – 3 Times Invalid – Account Blocked
  + If Password Valid – Input new Password – Reconfirm Input New Password (Following Application Security Requirement)
  + Back to Profile Page

Change PIN Flow – Accessible from Profile Page

* User Required to Input Old PIN
  + Information : You can Change your PIN here, you will be logged out when finished, please note account will be blocked if you are Input Wrong PIN 3 Times
  + If PIN Invalid – Error – 3 Times Invalid – Account Blocked
  + If PIN Valid – Input New PIN – Reconfirm Input New PIN

Enable BioMetric Flow – Accessible from Profile Page

* User Required to Input Password to Initiate Biometric Login Activation
  + Information : You can Enable Login with Biometric here, you will be logged out when finished, please note account will be blocked if you are Input Wrong Password 3 Times
  + If Password Invalid – Error – 3 Times Invalid – Account Blocked
  + If Password Valid – Disclaimer Information (User Acknowledge all biometric registered on this device will be able to access the application) – Required to Scan Biometric
    - If Biometric Invalid – Error – Biometric Invalid, Please Try Again
    - If Biometric valid – Login with Biometric Enabled

Contact Us (Additional)

* When Clicked there will be Information to contact Us :
  + By Call Center – 021 xxxxxx
  + By Phone / WA – 0811 1111 1111
  + Through live chat on our Website : [www.loanapplication.com](http://www.loanapplication.com)
  + Or Chat with Us now (Live Chat with CS by mobile apps)

Logout : User able to Logout from Profile Page (Clear Token and Session)

BackOffice Apps Design (Approval) – Additional Milestone

System Approval :

* Auto Approval by System (using existing authentication and verification)
* Manual Approval by BackOffice Apps (for User that classified on Suspect Status required manual approval from Administrator) – Can be extended to system Checker – Maker if necessary

Registration feature for backoffice application :

* Registration using NIK or other unique credential related with company
* Set up Password , with confirmation (2nd field)
* Verification OTP sent to company email base on NIK

Login feature as admin :

* Username -> NIK or other unique credential related with company
* Password -> Following Application Security Requirements (Min and Max Length, UpperCase LowerCase, Special Character, Number)
* Forgot Password -> link for reset password will be sent to registered company email related with the Username

Home / Landing Page :

* Pending Registration Approval
* Pending Loan Application Approval
* Block – Unblock User
* Logout : Administrator can Logout from Home / Landing Page (Clear Token and Session)

Pending Registration Approval :

* List of Registration Application classified as suspect with detailed data (Name, Place of Birth, Date of Birth, Uploaded Foto, Uploaded KTP, Uploaded Selfie with KTP)
* Field Detail Reason for Decission – Approve or Reject (Ex: Reject – Selfie Foto doesn’t match with KTP) or (Approved – Data and Foto Match)
* Choice for Approve and Reject
  + If Approved – Customer Identification File Creation will be processed – Customer will got the notification on their registered Email / Phone number
  + If Rejected – Customer will be flagged as Failed Register – Notification will sent to their Email/Phone Number

Pending Loan Application Approval (Optional)

* List of Loan Application classified as suspect with detailed data (CIF, Loan Date Submittion, Loan Amount, Tenor, Status)
* Field Detail Reason for Decission – Approve or Reject (Ex: Reject – Selfie Foto doesn’t match with KTP) or (Approved – Data and Foto Match)
* Choice for Approve and Reject
  + If Approved – Loan Disbursement will be Processed – Recorded As Active Loan
  + If Rejected – Customer will be flagged as Rejected – Notification will sent to their Email/Phone Number – Able to retry Apply Loan

Block – Unblock User

* Inquiry User ID / CIF to get User Detail
* Feature to Change User Status (Block or Unblock)

Settings : Change Password

* Field Old Password, New Password, New Password confirmation