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11 November 2022

**Detailed Design Document**

**IDFC Optimus Savings Account Co-origination journey v0.2**

**Important: The printed copy of this document is not under control.**

Document Revision History

**Optimus Web Application – Savings Account Journey**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Description** | **Author** | **Reviewed By** | **Review Date** |
| 0.1 | Created | Kumar Mahadevan |  |  |
| 0.2 | Added On boarding diagram for API authentication | Kumar Mahadevan |  |  |
| 0.3 | Updated panNumer in aadhar validate api, Added create account api contract | Vivek Wadkar | Kumar Mahadevan | 21/10/2022 |
| 0.4 | Updated API authentication flow | Kumar Mahadevan |  | 11/11/2022 |

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Abbreviations

The below table provides list of abbreviations and specific terms used throughout this document.

|  |  |  |
| --- | --- | --- |
| **Sr. No** | **Abbreviation** | **Description** |
| 1. |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |

# Overview

## Scope of the document

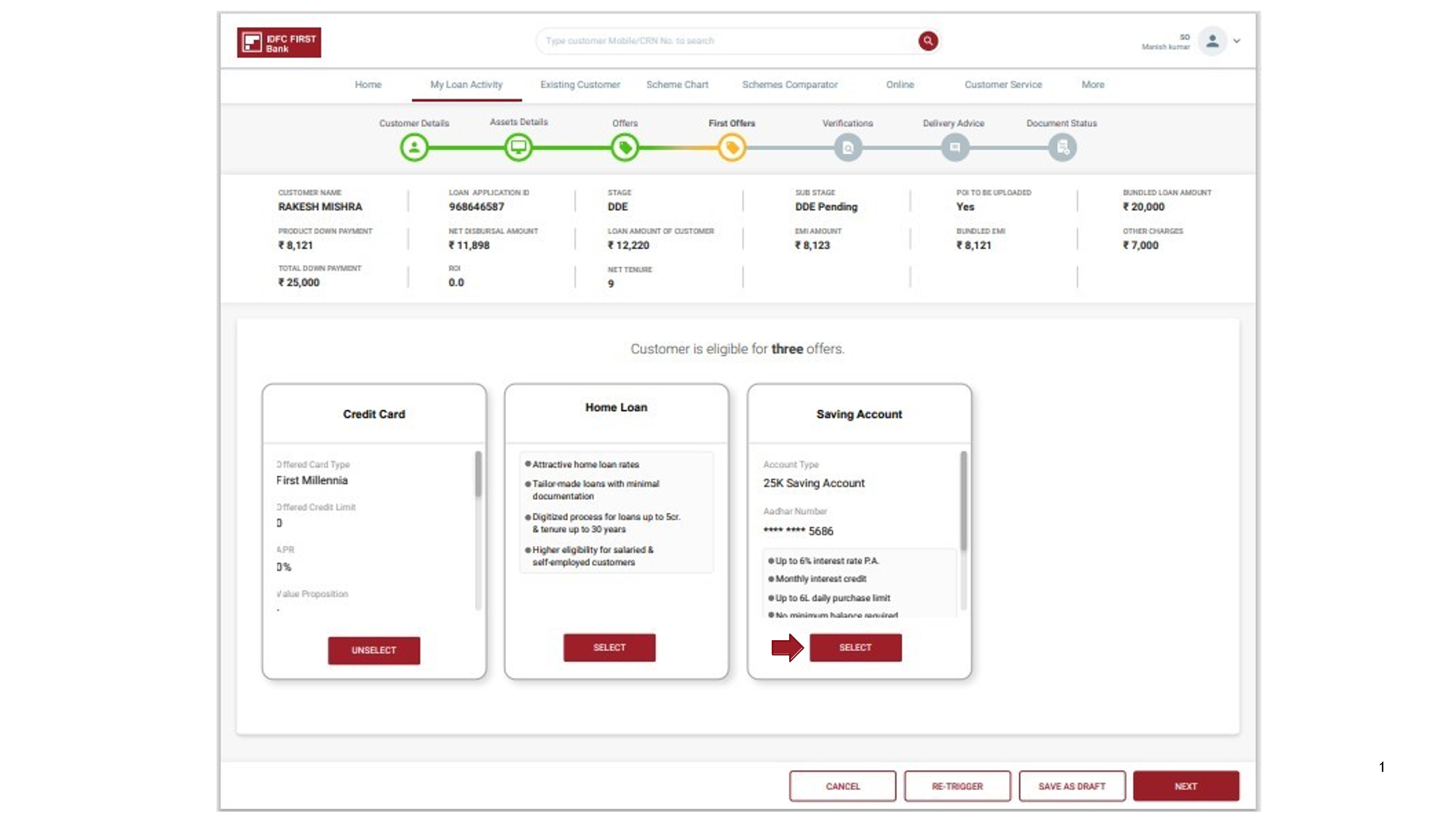
This document outlines the Low-level design of Use cases for the Co-origination Savings Account journey. It highlights/refers the Use cases in the Co-origination Savings Account journey process and low-level design details of component interactions along with the rationale for the same. This document is reference design document for developers/implementers so that they can develop system with minimal effort

## Intended Audience

* PSL SA development team
* IDFC Architects/ISG
* SFDC development team

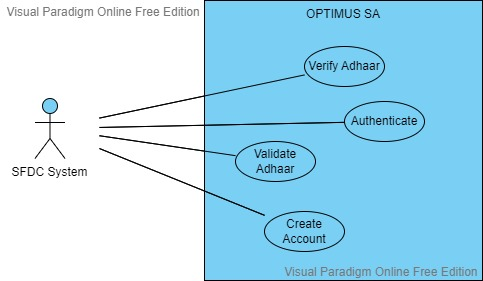
## System Overview

Co-Origination journey is a loan journey that offers 2-wheeler & 4-wheeler loans to customers. This loan journey’s UI is being currently developed in SFDC. During the loan journey, based on a customer’s eligibility for other product offers, Savings Account can also be offered to him. While availing the Savings Account offers, the SFDC system interacts with OPTIMUS Savings Account Experience layer API’s – verifyAdhaar, validateAdhaar, createAccount to complete the Savings Account journey. Post account creation, the user will be landed on to the existing React JS UI for completing his VKYC



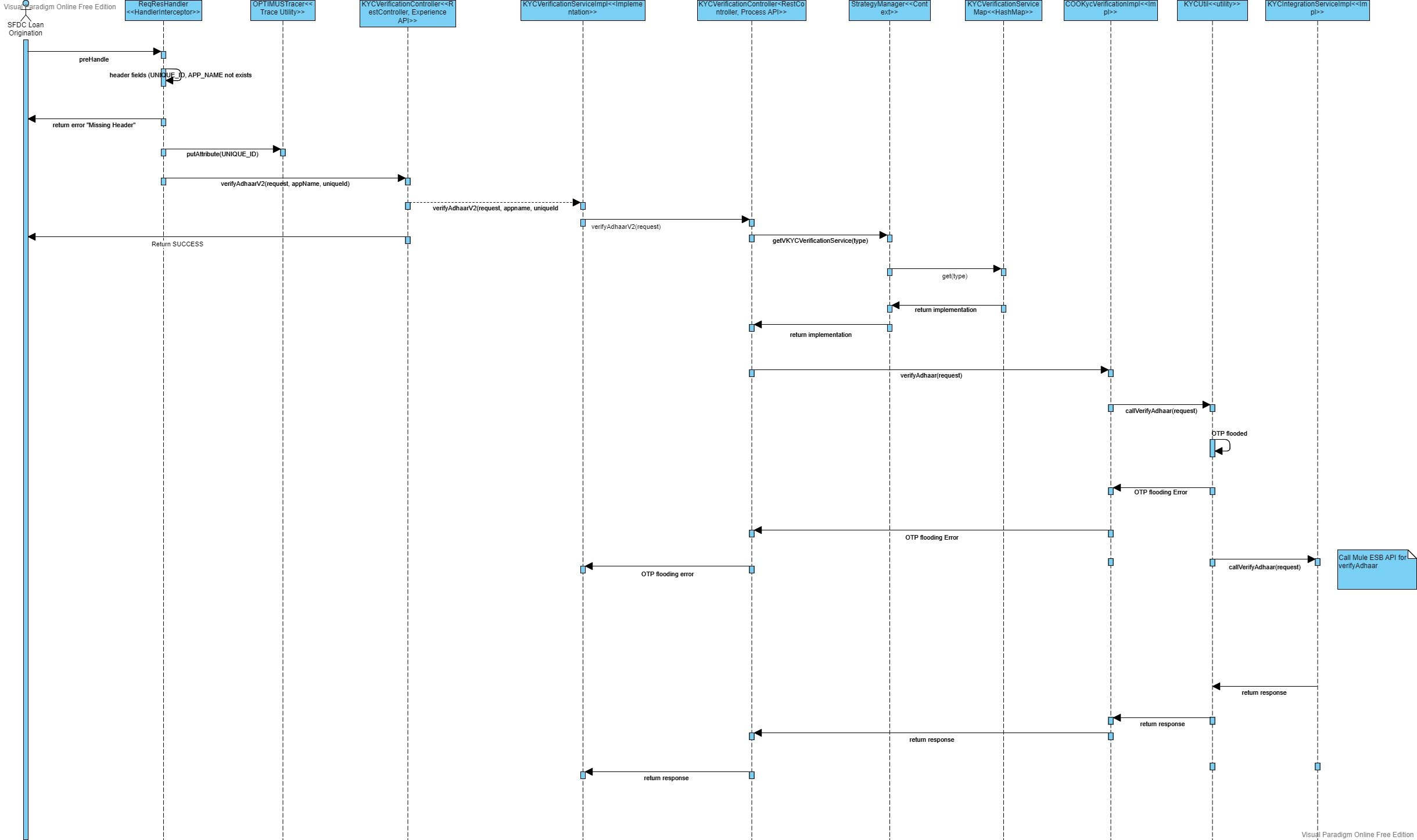
# Low Level System Design

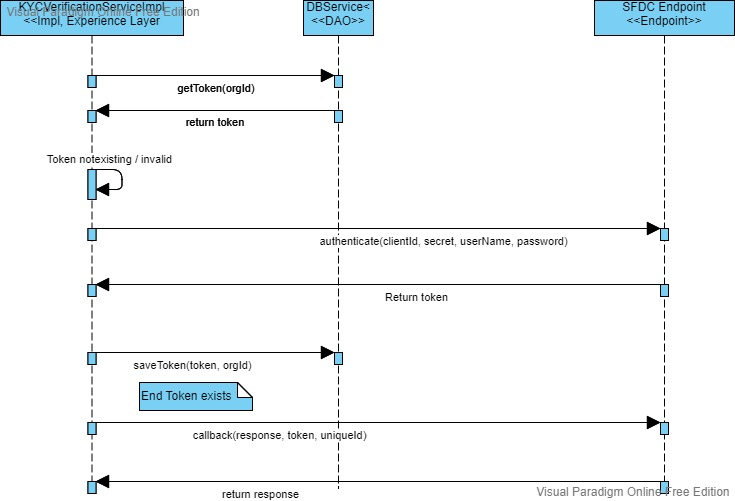
## Use case representation



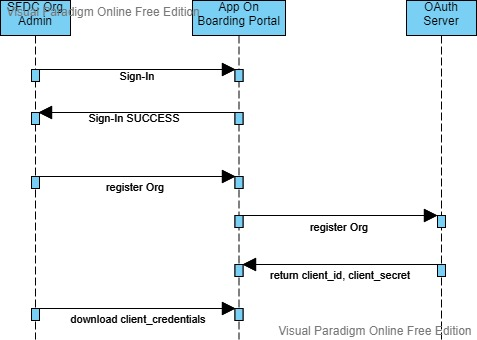
## Use case realization

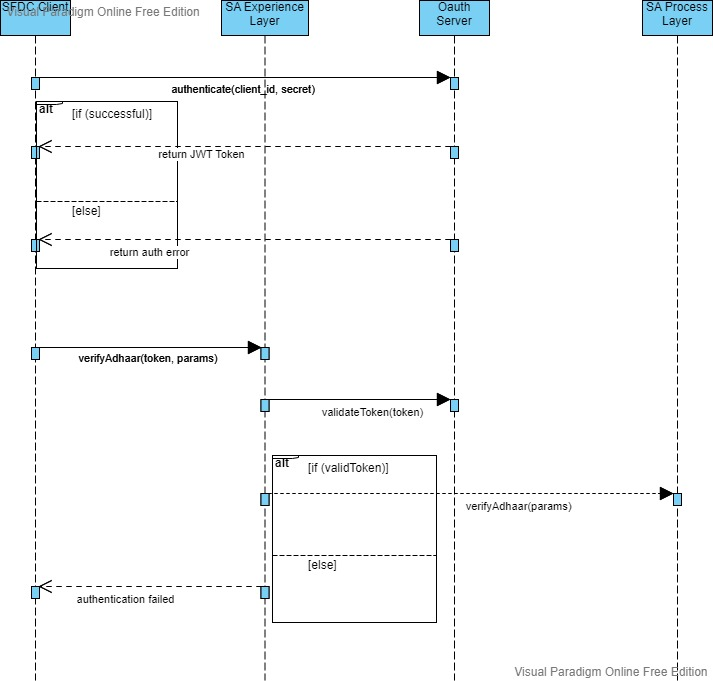
A). Verify Aadhaar





B). API Authentication





## Navigation Flow/UI Implementation

## Client-side Validation implementation

## Server-side Validation implementation

## Component design

## API contract design

A). Verify Aadhaar

***Service URL(s)***:

|  |  |
| --- | --- |
| **Environment** | **URL** |
| **DEV** | <https://api.dev-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/verify> |
| **QA** | <https://app.qa-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/verify> |
| **UAT** | <https://app.uat-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/verify> |

***Request***:

Method: POST

Header:

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Value** | **Encryption required** | **Description** |
| accessToken | bearer uuFX9KMoNTG4DvchrzUb6sm8jxOmp3V51YAMieKgRDQ.EfzjJRiLSDncmNdbGmj2\_vgTKKLu2v4xoZCRCS3zyvQ | No | Bearer JWT token that is returned after authentication |
| orgId | 00D0w0000008ec7 | Yes |  |
| uniqueId | [ Co-relation id ] | Yes | A unique identifier required while performing Async communication to identify the caller |
| appId | COO | Yes | A unique application id for each journey |
| mobileNo | 111111111 | Yes | User’s mobile no |

Request Body:

{

“uid”: “<encrypted Adhaar no>”

}

***Response***:

Success Response*:*

*Sync response*

*{*

*"status": "SUCCESS",*

*"message": "Request submitted.",*

*"responseCd": "00"*

*}*

*Async Response to sf-callback*

{

“status”: “SUCCESS”,

“message”: “Aadhar number verified successfully…”,

“responseCd”: “00”,

“otpTxn”: “2022072512093557987da2”

}

Error Response(s) to sf-callback:

{

“status”: “ERROR”,

“message”: “Please enter a valid 12 digit Aadhaar or 16 digit VID number”,

“responseCd”: “E-149”,

“otpTxn”: null

}

{

“status”: “ERROR”,

“message”: “Sorry, your Aadhaar authentication could not be completed. Please try again after sometime”,

“responseCd”: “GEVERIFYOTP”,

“otpTxn”: null

}

*Validations* – 400 Bad Request with error message

“accessToken”: NOT NULL, message : Access token is missing

“orgId”: NOT NULL, message : OrgId is missing

“uniqueId”: NOT NULL, message : UniqueId is missing

“appId”: NOT NULL, message : AppId is missing

“mobileNo”: NOT NULL, message : Mobile Number is missing

“uid”: NOT NULL, message : Uid is missing

C). Validate Aadhaar

***Service URL(s)***:

|  |  |
| --- | --- |
| **Environment** | **URL** |
| **DEV** | <https://api.dev-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/>validateOtp |
| **QA** | https://app.qa-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/validateOtp |
| **UAT** | https://app.uat-opt.idfcfirstbank.com/api/sf-sa/v2/aadhar/validateOtp |

**Request**:

*Method* - POST

*Header* –

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Value** | **Encryption required** | **Description** |
| accessToken | bearer uuFX9KMoNTG4DvchrzUb6sm8jxOmp3V51YAMieKgRDQ.EfzjJRiLSDncmNdbGmj2\_vgTKKLu2v4xoZCRCS3zyvQ | No | Bearer JWT token that is returned after authentication |
| orgId | 00D0w0000008ec7 | Yes |  |
| uniqueId | [ Co-relation id ] | Yes | A unique identifier required while performing Async communication to identify the caller |
| appId | COO | Yes | A unique application id for each journey |
| mobileNo | 111111111 | Yes | User’s mobile no |

Request Body:

{

"uid": "NkW+lTdWNBw03hex1fBK+Q==<in encrypted form>”,

"otpTxn": "2022101412571908397d9c",

"otp": "283457"<encrypted>,

"mobileNumber": "7058858123"<encrypted>,

"emailId": "<encrypted email address>",

"panNumber": "NkW+lTdWNBw03hex1fBK+Q==<in encrypted form>",

"cmpgnId": null,

"refferalCode": null,

"utmMedium": null,

"utmSource": null,

"utmId": null,

"utmAction": null,

"utmVariant": null

}

**Response**:

*Sync response:*

*{*

*"status": "SUCCESS",*

*"message": "Request submitted.",*

*"responseCd": "00"*

*}*

*Async Response to sf-callback:*

"photo":< In response this is customer photo form uidai(aadhar details) in base64 encoded.>

"aadharInfo":<In Response this is customer aadhar details in encrypted format>

{

"status": "SUCCESS",

"message": "Aadhar OTP verified successfully...",

"responseCd": "00",

"userId": 3289,

"photo": "",

"aadharInfo": "",

"pincodeServicable": true,

"defaultBranch": {

"branchCode": "42923",

"ifscCode": "IDFB0042923",

"branchName": "SOLAPUR BRANCH",

"isCreditCardServicable": false

},

"lead\_Id": "1000384272"

}

*Validations* – 400 Bad Request with error message

“accessToken”: NOT NULL, message : Access token is missing

“orgId”: NOT NULL, message : OrgId is missing

“uniqueId”: NOT NULL, message : UniqueId is missing

“appId”: NOT NULL, message : AppId is missing

“mobileNo”: NOT NULL, message : Mobile Number is missing

“uid”: NOT NULL, message : Uid is missing

"otpTxn": NOT NULL, message : OTP Transaction is missing

"otp": NOT NULL, message : OTP is missing

"mobileNumber": message : Mobile no is missing

D). Create Account

***Service URL(s):***

|  |  |
| --- | --- |
| **Environment** | **URL** |
| **DEV** | <https://api.dev-opt.idfcfirstbank.com/api/sf-sa/v2/account> |
| **QA** | [https://app.qa-opt.idfcfirstbank.com/api/sf-sa/v2/account](https://app.qa-opt.idfcfirstbank.com/api/sf-sa/v2/account%20) |
| **UAT** | https://app.uat-opt.idfcfirstbank.com/api/sf-sa/v2/account |

**Request**:

*Method* - POST

*Header* –

|  |  |  |  |
| --- | --- | --- | --- |
| **Key** | **Value** | **Encryption required** | **Description** |
| accessToken | bearer uuFX9KMoNTG4DvchrzUb6sm8jxOmp3V51YAMieKgRDQ.EfzjJRiLSDncmNdbGmj2\_vgTKKLu2v4xoZCRCS3zyvQ | No | Bearer JWT token that is returned after authentication |
| orgId | 00D0w0000008ec7 | Yes |  |
| uniqueId | [ Co-relation id ] | Yes | A unique identifier required while performing Async communication to identify the caller |
| appId | COO | Yes | A unique application id for each journey |
| mobileNo | 111111111 | Yes | User’s mobile no |

*Request Body* –

{

"userId": 3385,

"basicDetails": ""

}

**Note: Same encryption used here to encrypt the basic details. Below are decrypted basic details.**

{

"mobileNumber": "9423572416",

"emailId": "pranithrtha\_mahajan@persistent.com",

"panNumber": "BFOPM6732D",

"occupation": {

"id": "3",

"displayText": "Partnership/Company",

"label": "Partnership/Company",

"value": "Partnership/Company",

"sourceOfIncome": "Business"

},

"sourceOfIncome": {

"id": "1",

"displayText": "Business",

"value": "Business",

"label": "Business"

},

"grossAnualIncome": "436456",

"motherFullName": "gerat retey",

"companyDetails": null,

"commAddress": null,

"cardType": "PLATINUM",

"branchDetails": {

"branchCode": "41359",

"ifscCode": "IDFB0041359",

"branchName": "KARVE NAGAR BRANCH",

"isCreditCardServicable": true

}

}

**Response**:

*Sync response:*

*{*

*"status": "SUCCESS",*

*"message": "Request submitted.",*

*"responseCd": "00"*

*}*

*Async Response to sf-callback:*

{

"status": "SUCCESS",

"message": "Account created successfully....",

"responseCd": "00",

"accountDetails": "",

"creditCardDetails": null

}

**Note: Same encryption used here to encrypt the accountDetails. Below are decrypted accountDetails.**

{

"ifscCode": "IDFB0040101",

"accountNumber": "21484594029",

"custRefId": "9903858000",

"preferredBranch": "BKC - NAMAN BRANCH",

"serverTime": "2022-10-19T16:20:49.852096",

"productName": "ONLINE SAVINGS 25K",

"customerName": "Pranita Vinod Mahajan",

"nameOnDebitCard": "PRANITA MAHAJAN",

"vkycEnabled": true,

"ipvEnabled": true,

"commAddress": {

"address1": "FLAT NO.11A DEEP JYOTI AVENUE BEHIND",

"address2": "DILIP BARATE BUNGLOW Pune ",

"address3": "",

"pincode": "411058",

"city": {

"value": "411",

"displayText": "PUNE"

},

"state": {

"value": "60",

"displayText": "MAHARASHTRA"

},

"country": {

"value": "IN",

"displayText": "INDIA"

}

},

"kycCompleted": "FALSE",

"kycCompletedTime": "",

"enachCompleted": false,

"fundingCompleted": false,

"fundingCompletedTime": "",

"fundingAmount": "",

"chequeBookPickUpCompleted": false,

"chequeBookPickUpCompletedTime": "",

"shareHrCompleted": false,

"branchCd": "40101",

"productType": "2000",

"subProductType": "1020",

"resumedAfterLogTime": false,

"vkycAgentStatus": "",

"vkycAgentStatusReason": "",

"vkycCheckerStatus": "",

"vkycAgentComment": "",

"isPaymentFromLandingPg": false

}

## Configuration settings

* This section will capture the details of different settings/configurations being used in system application

# Data Design

## Key Schemas/Tables in the Database

## Key Design considerations in data design

# Frameworks used

## Caching

## Exception handling

## Design Frameworks

# Performance considerations

## Component performance

## Database performance

# Unit testing

* This section will capture the details for list of unit test cases being used for testing a particular component
* Reference of unit test case document can be given in this section

# References

* This section will list down the documents which has been refereed while creating this document