Hyderabad Development Bank Project Requirements

HDB is setting up a new bank across India. Management has decided to have an online portal for its

customers to be able to maintain their account information and also to make transactions using this

online portal. Project has been successfully initiated and your team has been chosen to develop this for

HDB. The business analyst has come out with the below mentioned points from the initial investigations

and discussions with the client.

HDB as mentioned above is a new bank, with its head quarters in Hyderabad. With the team and

customer base set to expand in the coming months, portal idea has gained utmost importance and

needs to be executed effectively. Below mentioned are the observations in detail regarding domain and

portal that needs to be developed

This portal would have 2 modules

1. User – All user related operations and features which are available for a customer

2. Admin – To manage data and users on the portal

Account Types

1. Savings

a. Regular

b. Corporate

2. Current

Savings account is for individuals. Anybody who is above 18 years of age can open a savings account

with the bank. If a company is opening an account for the individual then Savings – corporate account

would be considered, else Savings – Regular account would be the choice.

Savings – Regular

1. Has to be above 18 years of age

2. Minimum balance that has to be maintained is Rs 5,000

3. Company information would not be there for the customer

4. Cash withdrawal limit for a day on the debit card would be Rs 20,000

5. Transfer funds limit for a day – Rs 50,000

Savings – Corporate

1. Has to be above 18 years of age

2. Minimum balance that has to be maintained is Rs 0

3. Company information would be there for the customer

4. Cash withdrawal limit for a day on the debit card would be Rs 30,000

5. Transfer funds limit for a day – Rs 1,00,000

Current

1. Applicable for a company or a business

2. Minimum balance that has to be maintained is Rs 0

3. Apart from company information, contact user information would also be there

4. Cash withdrawal limit for a day on the debit card would be Rs 50,000

5. Transfer funds limit for a day – Rs 2,00,000

Customer Information

A customer first has to enter his/her information and register on the portal. Once all the information is

entered, a background verification process takes place. After verification process is completed, account

information is sent in post [Account number, Debit card, Pin number, brouchers etc...] to the given

address of the customer. Admin activates the customer’s account in the admin module. Only after the

account is activated can a customer actually access his/her account. Customer information would be as

mentioned below

Customer information for Savings account should have the following

a. Name \*

b. Father/ Guardian Name \*

c. Gender \*

d. Date Of Birth \*

e. Address \*

f. City \*

g. State \*

h. Country – Default India \*

i. Phone No

j. Mobile No \*

k. Email Id

l. Account type \*

m. Company Name – If (Savings – corporate) \* (if corporate)

n. Account number – Generated at the back end [Should be unique]

o. Debit card number – Generated at the back end [Should be unique]

p. Pin number – Generated at the back end [Should be unique]

q. Login Id \* [Should be unique]

r. Password \*

Fields marked \* are mandatory

Customer information for Current account should have the following

a. Business Name \*

b. Type of Business \* [Pre populated list. Will be stored in database]

c. Address \*

d. City \*

e. State \*

f. Country – Default India \*

g. Phone No

h. Mobile No \*

i. Website

j. Contact Name \*

k. Email Id

l. Account type \*

m. Account number – Generated at the back end [Should be unique]

n. Debit card number – Generated at the back end [Should be unique]

o. Pin number – Generated at the back end [Should be unique]

p. Login Id \* [Should be unique]

q. Password \*

Fields marked \* are mandatory

• Above mentioned information would be asked during the registration process

• Customer can also edit his/her information once the account is activated by logging in to the

account

• Customer can edit from his account only the below mentioned information

o Address

o City

o State

o Phone No

o Mobile No

o Email Id

o Password

o Contact Name [If current account]

o Website [If current account]

• Note: Any change in customer information has to be first approved by the admin, only then

it would be updated for a customer

• Other information for a customer can only be viewed

Login

Once the account is activated, customer can login to the portal using his/her login id and password given

during the time of registration. Upon successful authentication, user would be displayed all information

regarding his/her account

Forgot password

Customer has an option to retrieve his/her password if forgotten. Customer has to enter account

number, login id, and debit card pin number. Password for the account will be sent via post to the given

address in the account. If customer wishes to also get password information to his/her email id then an

email can be sent to the same. But customer’s consent has to be obtained and only then be sent.

Account Transactions

Account information would have many transactions a customer has made using his/her account.

Basically with respect to financial transactions only a Debit or Credit can happen. This debit and credit

on a user’s account can happen through multiple sources. They are

Transactions would be of the following categories

a. Credit

a. Cash deposit [Admin module]

b. Cheque deposit [Admin module]

c. Transfer of funds from another account – (Receive)

b. Debit

a. Cash withdrawal [Admin module]

b. Cheque withdrawal [Admin module]

c. Transfer of funds from another account – (Send)

d. Service charges

i. Request for cheque book

ii. Bounce of a cheque

a. Transfer of funds

Customer can transfer funds from one account to another

Customer can transfer funds to an account from the same bank or from another bank

Before transferring funds to an account, customer has to add the recipient as a payee on

the system

Adding a payee would involve information like

i. Payee account number

ii. Payee account name

iii. Bank – [If transferring to another bank account]

For future transfers to that account, the added payee can be just selected without

adding new

Once payee is added, amount to be transferred is entered along with remarks for the

transfer

After this, customer has to verify his account password again

Once verified, a transaction id has to be generated and displayed to the user

This would be considered as debit to the sender’s account and credit to the receiver’s

account

Amount from the sender’s account has to be deducted and amount in the receiver’s

account has to be added

There is a daily limit for transfer of funds using internet banking and that depends on

the type of account customer has, which has to be verified

Of course, the entire transaction would go through only if there are sufficient funds in

the account

Customer can delete a payee anytime from the list

b. Request for cheque book

Customer can place an order for cheque book

When request is submitted, customer has to be asked to verify his password

Once confirmed, a charge has to be deducted from the account

Again, there has to be sufficient funds to place the order for a cheque book

Cheque book will be sent via post to the customer’s given address

c. Miscellaneous

Customer can also withdraw from the ATM using his/her debit card

Customer can

i. Withdraw cash

1. Pass debit card number and pin number, to verify identity

2. If verified, check for balance considering account type, debit card

number, pin number and amount requested

3. Check for daily limit

4. If everything is verified and successful, deduct amount from account

and send approval flag information

ii. Request for a mini statement

1. If asked send the last 10 transactions that have happened in the

account, with balance information

2. Date of transaction

3. Remarks of transaction

4. Debit/Credit

5. Transaction amount

6. Balance info [Above mentioned have to be displayed]

iii. Change pin number for the card

1. Enter old pin number

2. New pin number

3. Confirm new pin number

4. Send confirmation back as a flag

iv. Request for cheque book

1. Select type of account, debit card number and pin number and place an

order for cheque book

2. Deduct service charge for the same from the account

3. If no balance, communicate back not able to process request, if

successful send flag

There is a limit on the amount a customer can withdraw from his/her account using his

debit card and that depends on the type of account

Balance, daily limit etc has to be verified

A common service has to be exposed to check and process information

Admin module

Admin will be able to manage data and users through the admin module. We will have a separate

interface to which he can login using his/her login id and password. Admin can

1. Approve and activate accounts

2. Transaction management

a. Cash deposit

i. There can be cash deposits for any amount in a customer’s account

ii. The amount deposited would be added to the customer’s balance

iii. Would be considered as Credit

b. Cheque deposit

i. Customer can deposit cheque in the account

ii. Cheque information would be

1. Name on the cheque

2. Amount

3. Name of bank – [Cheque issued]

4. Cheque number

5. Date Of Cheque

iii. Would be considered as credit

iv. Cheque amount has to be added to customer’s balance, if the cheque

has gone through successfully

c. Cash withdrawal

i. There can be cash withdrawals from a customer’s account, as long as

there is balance in the account

ii. The amount withdrawn would be subtracted from the customer’s

balance

iii. Would be considered as debit

iv. Customer can withdraw cash from the ATM as well [Explained above]

d. Cheque withdrawal

i. Customer can withdraw using cheque from the account

ii. Cheque can be issued to others or for self

iii. Cheque information would be

1. Name on the cheque

2. Amount

3. Name of bank – [Cheque issued]

4. Cheque number

5. Date Of Cheque

iv. Would be considered as debit

v. Cheque amount has to be subtracted from customer’s balance, if there

is balance in the account

vi. Status would be either “Cleared” or “Bounced”. If there is no balance,

cheque will be returned and the service charges that are applicable for a

cheque bounce will also be charged for the account.

vii. The charge applicable would be deducted from the account, if the

balance is lesser than the service charge, then account would go into

negative

Note:

List of things to be done for the project

1. Architecture

2. Technology Stack

3. Use cases and diagrams

4. High Level Design

5. Low level Design

6. UI – Walk through

7. Test Cases and Unit Testing

8. Coding guidelines (To be strictly followed and enforced)