

## **-: Requirements:-**

### **R1: System Authenticate users through Secure Login.**

**Description:** User provide system access after once user is authenticated through secure login feature.

**R1.1:** System Provides e-Registration form for Money Lenders who are interested to use our Money Lending Management System as website (platform).

**R1.1.1:** Registration form contain field to take general information of user like full-name, address, city, contact number, email-id and custom username and password (validated after authentication of user) etc.

**R1.1.2:** Registration form also contain custom customer's username and password field which is validated after authentication of valid user.

**R1.2:** System read register details of user.

**Input:** Enter register details by user. (As per R1.1)

**Output:** Read registration details.

**Description:** System read register details filled in registration form.

**R1.3:** System store register detail of user database.

**Input:** Read register detail

**Output:** Store to users-database

**Description:** System store register details of registration form.

**R1.4:** System verify user by admin.

**Input:** added user through registration.

**Output:** valid\_user flag.

**Description:** System admin check added user in database and after cross-verification with user, admin authenticate user for login and set valid\_user=true.

**R1.5:** System Authenticate user.

**Input:** Username and password (separately taken in e-registration form)

**Output:** Website access for authenticated user (authenticate\_user flag)

**Description:** System check username and password in database if it is valid user then system access is given to user (authenticate\_user flag=true).

**R2: System manages users**

**R2.1:** System store record of each authenticated user based on registered information.

**Description:** Valid users by admin are authenticate to access system and their register information is store to database.

**R2.2:** System provide separate (database) connection to each user.

**Description:** System provide different database connection to manage different user's customer account.

**R3: System add new Account on basis of items taken as mortgage with its customer information and manage customer details.**

**Input:** customer details.

**Output:** Add customer detail for new customer's account.

**Description:** User create new account of customer by adding customer details.

**R3.1:** System provide Customer form (customer\_info webpage) to add customer information for account.

**R3.1.1:** Customer form field include customer's full-name, address, city, mobile number, email id, aadhar number, etc. to unique identification of customer.

**R3.1.2:** System is available only for people of specific city and nearer villages.

**R3.2:** System read customer detail filled in form.

**Input:** Customer details in customer account form. (As per R3.1)

**Output:** Read customer details.

**Description:** System read customer information from filled in new customer account form.

**R3.3:** System check added customer detail in past-stored customer account record.

**Input:** Read customer details.

**Output:** customer\_exist flag.

**Description:** System read customer information from filled customer account form and match with past stored customer accounts (in database) if match found then set customer\_exist flag=true and it display "customer exist" message, else set customer\_exist flag=false means match not found.

**R3.4:** System provide reset or edit facility for added customer details in customer's account.

**Description:** User can edit or reset filled customer details in customer form of customer's account.

**R3.5:** System store details of customer in customer account database.

**Input:** read customer details from new customer account form

**Output:** Store to database.

**Description:** System store new customer account detail to database.

**R4: System Provide interface to add mortgage items of customer to added customer account.**

**Input:** mortgage items of customer. (With added customer\_details)

**Output:** added mortgage items for customer account.

**Description:** Items taken as mortgage from customer are added to customer account.

**R4.1:** System can accept only Gold, Silver or Platinum metal jewellery to taken as mortgage from customer.

**R4.1.1:** System provide selection category for gold or silver or platinum for corresponding ornaments.

**R4.1.2:** System Display different jewellery items (ornaments) based on selection category (Gold or Silver or Platinum).

**R4.2:** System enables user to add multiple items of mortgage to customer account.

**Input:** Mortgage items of customer.

**Output:** Add items for mortgage.

**Description:** User can add one or more mortgage items to customer account.

**R4.3:** System enable user to remove multiple items of mortgage if they are previously added items.

**Input:** Mortgage items of customer.

**Output:** Remove items for mortgage.

**Description:** User can remove one or more mortgage items from customer account.

**R4.4:** System add mortgage item details.

**R4.4.1:** Read final weight and equivalent mortgage amount of customer mortgage items.

**Input:** Final weight and equivalent mortgage amount.

**Output:** Read final weight and equivalent mortgage amount.

**Description:** User input final weight and equivalent mortgage amount which describe mortgage items equivalent mortgage amount is final total amount that is provided to customer on mortgage items.

**R4.4.2:** System store weight and mortgage amount detail in database.

**Input:** Read weight and equivalent mortgage amount.

**Output:** Added weight and equivalent mortgage amount for mortgage items.

**Description:** User add customer mortgage item list with its total weight and equivalent mortgage amount.

**R5: System manages items of customer taken as mortgage.**

**Input:** Added customer mortgage items in customer account

**Output:** Organized customer mortgage items of customer's account.

Description: added mortgage items for customer account are manages (handle) by user.

**R5.1:** System generate unique 4 digit reference number for mortgage items of customer account.

**R5.1.1:** System link reference number to mortgage items of customer (internally).

**Description:** System generate 4 digit reference no for unique identification of different customer mortgage items.

**R5.2:** System Provide user to add reference place which describe physical location of mortgage items.

**Description:** user can add reference place which describe physical location of customer's mortgage items so user locate mortgage items.

**R5.3:** System enable user to verify mortgage items detail and customer details of customer account from customer.

**Input:** Added mortgage items in customer account.

**Output:** Verify\_account flag.

**Description:** System review customer account before storing so that user conforms add account to database so if account verification is success then set verify\_account flag=true means now customer account is valid so user can add it.

**R5.4:** System add credit amount to customer account.

**R5.4.1:** System read credit amount to customer account.

**Input:** Credit amount on mortgage items taken by customer.

**Output:** Read credit amount taken by customer.

**Description:** User add first time credit amount of customer to account.

**R5.5:** System Store reference detail of mortgage items and credit amount to its customer account.

**Input:** Added mortgage items with weight and mortgage amount.

**Output:** added reference and credit amount to customer account.

**Description:** System store reference no and reference place to mortgage items info in database and credit amount is stored as transection.

**R6: System search for past customer accounts record (to view transection record).**

**Input:** Search text.

**Output:** Search result.

**Description:** User perform search operation in previously added customer account and display search result as customer account if search found.

**R6.1:** System enable user to search customer account by name, reference number, city, mobile number etc..

**R6.2:** System read user input to search accordingly (refer R6.1).

**Input:** Search text.

**Output:** Search result.

**Description:** user enter search input is search in customer account database if match found then customer account display.

**R7: System display previous customer account transection from search result.**

**R7.1:** Search result format contain name, city and reference number.

**R7.2:** System prepare report of customer's account transection from searched account.

**R7.2.1:** Report includes date-wise record of customer account transection.

**R7.2.2:** System display customer's account transection.

**R7.2.2.1:** System display equivalent amount (in Rupees) for items taken mortgage from customer.

**R7.2.2.2:** System display total credit-debit money of customer account.

**Description:** Customer's account transection which show date-wise credit and debit transection of customer account with equivalent mortgage amount.

**R7.3:** System enable user to print customer's account transection report.

**R8: System manages transection of customer account.**

**Input:** Customer account transection report from search section.

**Output:** Updated customer account transection.

**Description:** User add debit or credit amount as per transection by customer and mortgage amount that to be return by customer is calculated on interest rate.

**R8.1:** System search customer account to update (refer R6).

**R8.2:** System display searched customer's account past transection (refer R7).

**R8.3:** System verify customer account from customer details.

**Description:** From search customer account user can view customer account detail with its transection so user can verify it from customer which validate customer.

**R8.4:** System update customer account transection.

**Input:** Credit or debit amount.

**Output:** Updated customer account transection.

**Description:** User update credit or debit amount transection of customer to account.

**R8.4.1:** System Read amount based on type of transection on customer account.

**Input:** Credit or debit amount for customer account.

**Output:** Read credit or debit amount.



**Description:** User credit or debit to customer account based on customer choice.

**R8.4.2:** System add credit amount to customer account.

**Description:** System add credited amount transaction to customer account if credit amount is less than mortgage equivalent amount.

**R8.4.2.1:** System check credit amount with equivalent amount.

**Input:** Credit amount of customer account

**Output:** Valid\_credit\_amount flag

**Description:** User credit to customer account if customer desire credit amount (by customer) is less than or equal to equivalent mortgage amount which set valid\_credit\_amount=true.

**R8.4.2.2:** System store credited money of customer account transaction.

**Input:** Valid credit amount

**Output:** Store to customer account as credit transaction

**Description:** System store valid credit amount given to the customer by user in customer account transaction in database.

**R8.4.3:** System add debit amount to customer account .

**Description:** System add debited amount transaction to customer account on basis of interest rate calculation.

**R8.4.3.1:** System calculate interest rate on mortgage money.

**R8.4.3.1.1:** System calculate simple interest rate on mortgage items of customer if transection time is below 1 year from date item taken as mortgage

**R8.4.3.1.2:** System calculate compound interest rate on mortgage items of customer if transection time is above 1 year.

**Input:** Interest rate on mortgage amount.

**Output:** Final mortgage amount to be returned by customer

**Description:** Mortgage amount that customer will have to return on his mortgage items is calculated with interest rate based on time elapsed for specific mortgage items according to R8.4.3.1.1 and R8.4.3.1.2.

**R8.4.3.2:** System store debited money of customer to its account transection.

**Input:** Debit amount of customer

**Output:** Store debit amount to customer account as debit transection

**Description:** System store debit amount that customer paid to user in customer account transection in database.

**R8.5:** System allow user to close customer account.

Description: user can clear customer account if user is fulfilled by mortgage amount return by customer on mortgage items.