



LOAN PROCESSING SYSTEM Application Development

ELF / HTD Training Programs
Full Stack - Use Cases

TESTYANTRA Software Solutions

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1. INTRODUCTION

This document outlines the Project. The project is to develop LOAN APPLICATION PROCESSING System (LAPS). This document contains the work flow of the system and gives guidelines on how to build the functionality gradually in each of the course modules.

1.1 Setup Checklist for Project

Minimum System Requirements

- Intel Pentium 90 or higher (P166 recommended)
- Microsoft Windows 95, 98, or NT 4.0, 2k, XP, Windows 7
- Memory: 32MB of RAM (64MB or more recommended)
- Internet Explorer 6.0 or higher

1.2 Instructions

- The code modules in the mini project should follow all the coding standards.
- You can refer to your course material
- The total time required to complete this project is 50 hrs.
- Since this project work will span over couple of months, you will need to take care of maintaining the code

2. PROBLEM STATEMENT

Given that the changes that have taken place in the world, we found that paperwork is inconvenient way to record data. Most loan providers still use the old fashion, where they record all the details on the papers. No online service.

When a customer wants to know the remaining amount, he needs to go to in person or contact the provider. Then, the provider representative has to review the customer details manually and calculate the remaining amount. Unfortunately, this method is a waste of time, inaccurate and inefficient. The loan receiver sometimes could argue about missing data, such as an instalment that is missing and is not being recorded.

Here comes the idea of the project.

2.1 Objective

2.1.1 General Objective

To automate the process of Loan Processing System & Management & hence minimize errors resulting from manual system operations

2.1.2 Special Objective

The objective of this study is to develop distinguished institutions and organize loan management.

There are many goals and focus:

- 1- Saving time and effort
- 2- Eliminate the use of paperwork for transactions
- 3- Customer's vision towards the organization
- 4- And full customer access

2.1.3 Scope of the Study

There are several loan management systems, from the traditional methods of paper and pen to electronic record keeping. However, a few of these systems are interoperable and all records are considered the property of the enterprise without the client.

The system (LMS) will help improve communication and flexibility between the parties and the full knowledge of both parties

2.2 Abstract of the Project

A business objective of providing efficient loan process using technology as an enabler in order to give the company a competitive advantage within the industry suggests automation. Although a number of lenders have a certain kind of technology infused into their loan processing system, there are noticeable insufficiencies. Finding a guide to the design and creation of a loan automation system is also elusive. There is therefore the need for the creation of a loan automation application which this research addressed. Design and creation research strategy was adopted and data collection was through existing documents and structured interviews. Waterfall software development method was adopted. The outcome provides a loan automation application that saves paper works throughout the life of the loan, and its design is also available as a contributory guide towards creation of similar system.

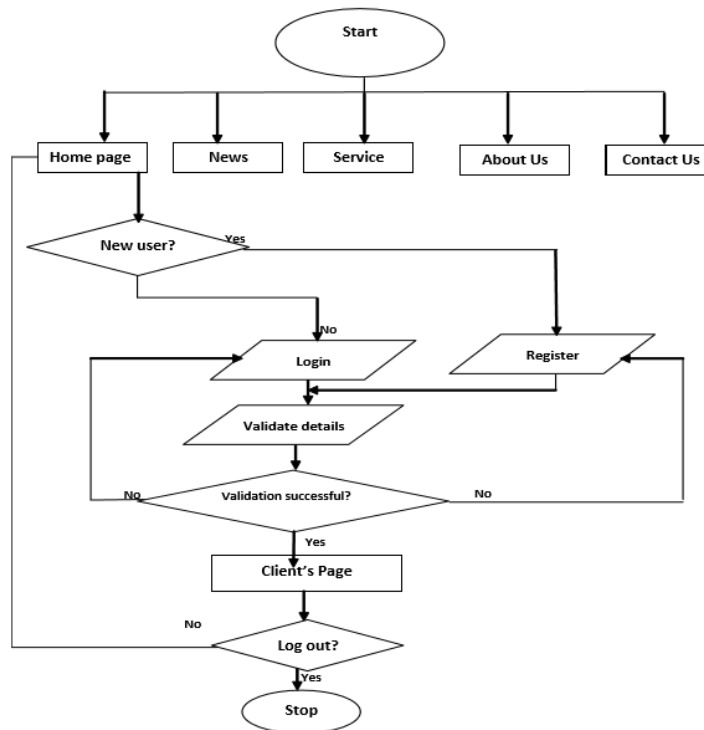
3. IMPLEMENTATION

3.1 System Design Objectives

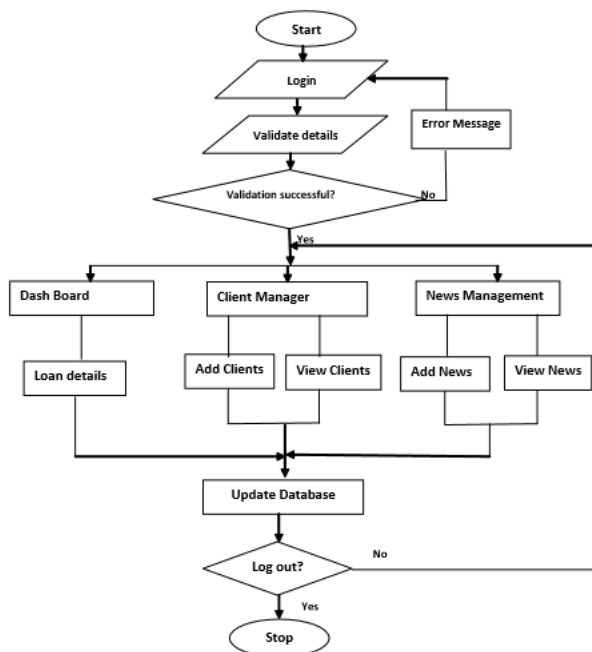
The propose system is web based software having features and further detailed as follows:

- i. Home page, News page, Service Page, About Us page and the Contact Us page.
- ii. Fast internet connection speed
- iii. Login page where clients will log in and make loan, pay loan, change of password and also see messages from the administrators.
- iv. Allows administrators to easily authorize users to manipulate certain pages on their web pages as checking their account balance.
- v. Service page which contains all information on the loan types, categories and payment plans, among others

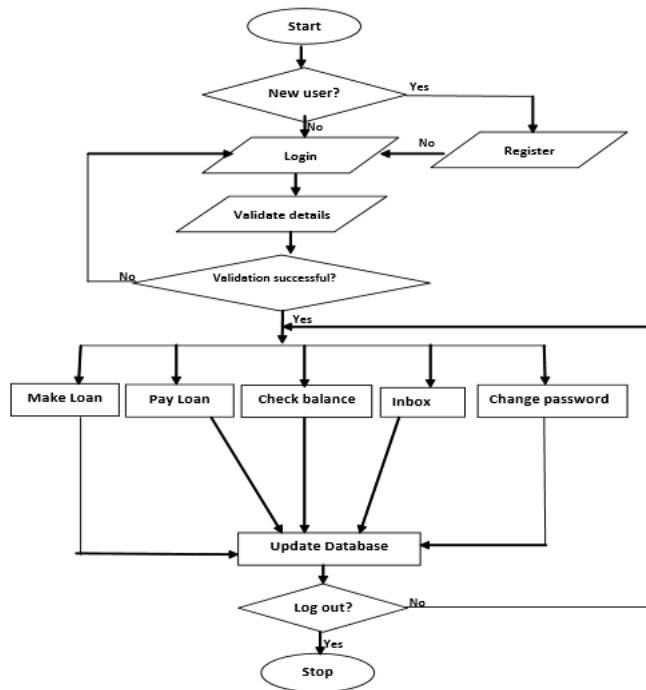
vi. On the administrator's page the Admin will approve each client loan status after the request of loan has been sent by each client.



Admin module Flowchart



User Module Flowchart



3.2 Functional Requirements

Following is a list of functionalities of the system. Wherever, the description of functionality is not adequate; you can make appropriate assumptions and proceed.

There are three categories of people who would access the system viz. customers (loan applicants), members of loan approval department (lad) and administrators. Each one of them would have some exclusive privileges (for e.g. Customers can apply for a program by filling up the online form without any login process, members of loan approval department (lad) alone will be able to view loan applications, approve or reject the application for a specific loan program. Only the administrator has the right to keep track of the home finance provider's loan program details.)

1. Customers should be able to
 - View all loan programs offered by the home finance provider
 - Apply online for a loan program offered by the home finance provider, by filling up the application form that auto generates the application ID
 - View the application status of application, based on the application ID

2. The member of loan approval department should be able to:
 - Login into the system using his/her credentials.
 - View all loan programs offered by the home finance provider
 - View loan applications for a specific loan program.

Accept/Reject an application on the basis of the details of the loan applicant. If loan application is acceptable, loan application status is changed to 'Accepted', the scheduled date for an interview (of the loan applicant for verification of applicant's documents, before approving the applicant's loan under the mentioned loan program) is filled into the application form.

- After the interview, the status of the loan application is changed to Approved/Rejected
3. The administrators should be able to
 - login to the system using his/her credentials
 - Update and manage (add or delete) information of the loan programs offer by the home finance provider
 - Generate various reports like:
 - View List of loan applications approved/accepted (waiting for interview)/rejected for a loan program.

4. System implementation

4.1 Admin Environment

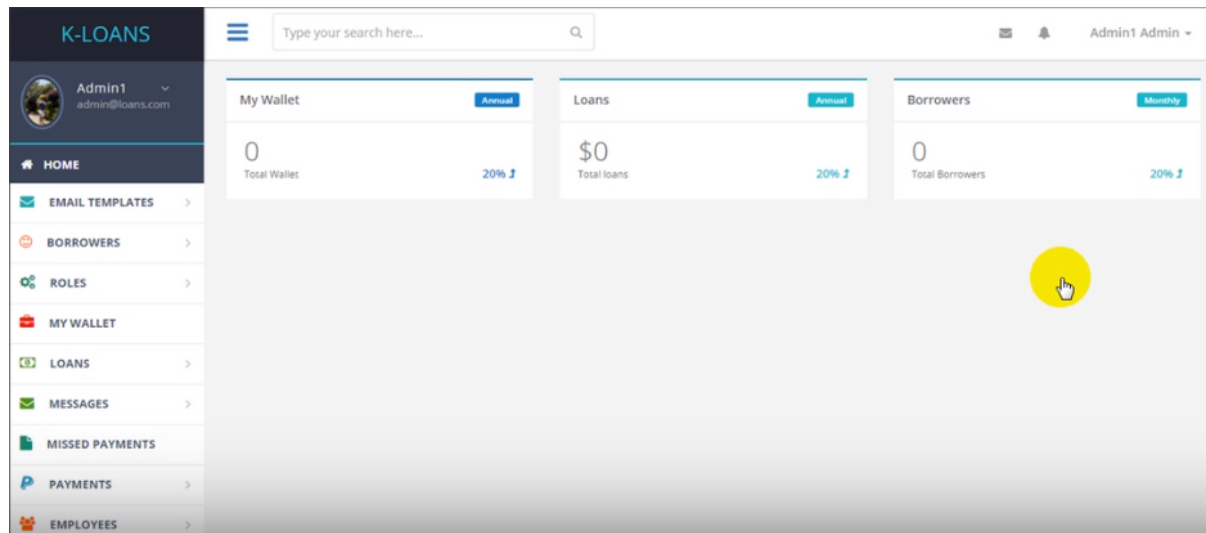
(i) Bank Name

Your Bank Name

LOAN EMI CALCULATOR

Configuration	Security	Directory	Loan Processing	Accounting	Transactions
New	Edit	Delete	Preview	OK	Cancel
Message:					
Loan Amount	<input type="text"/>	Interest Rate	<input type="text"/>		
Period (Month)	<input type="text"/>			<input type="button" value="Load EMI"/>	
Month	Principal Balanced	Monthly Interest	Principal Reduced	Monthly EMI Amount	

(ii) Homepage



4.2 Staff Environment

(iii) Loan Application Form

Your Bank Name

LOAN APPLICATION FORM

Configuration	Security	Directory	Loan Processing	Accounting	Transactions
New	Edit	Delete	Preview	Search Loan A/c no. <input type="text"/>	OK Cancel

Message:

<input checked="" type="checkbox"/> IsActive	Loan Id	<input type="text" value="L2013017000002"/>	Loan A/c No.	<input type="text" value="LIAC ROHIT"/>	Request Date	<input type="text" value="17/01/2013"/>
	Branch code	<input type="text" value="000001"/>	Branch name	<input type="text" value="MAIN BRANCH"/>	Open Date	<input type="text" value="17/01/2013"/>
Applicant :	First Name	<input type="text" value="ROHIT"/>	Middle Name	<input type="text" value="KUMAR"/>	Last Name	<input type="text" value="SINGH"/>
Co-Applicant :	First Name	<input type="text"/>	Middle Name	<input type="text"/>	Last Name	<input type="text"/>

- PERSONAL DETAILS
- INTRODUCTION DETAILS
- LOAN TYPE
- FINANCIAL INFORMATION
- REQUESTED LOAN & REPAYMENT SOURCE

(iv) Loan Info_1

K-LOANS

Admin1
admin@loans.com

HOME

EMAIL TEMPLATES

BORROWERS

ROLES

MY WALLET

LOANS

New

List

MESSAGES

MISSED PAYMENTS

Type your search here...

Loan Info

Loan Information Additional Fees Attachments Collateral Payment Schedule

Loan Information

Fields in red are required

Borrower: d

Account #: Demo Customer

Description:

Amount:

(v) Loan Info_2

K-LOANS

Admin1
admin@loans.com

HOME

EMAIL TEMPLATES

BORROWERS

ROLES

MY WALLET

LOANS

New

List

MESSAGES

MISSED PAYMENTS

Type your search here...

Loan Info

Fields in red are required

Current Balance: 2500.00

Payment Date: 10/16/2016

Amount to Pay:

Teller: Admin1 Admin

Remarks:

Close Approve Payment Schedule Print Disclosure edit

(vi) Messages

The screenshot shows the 'K-LOANS' application interface. On the left is a sidebar with navigation links: HOME, EMAIL TEMPLATES, BORROWERS, ROLES, MY WALLET, LOANS, and MESSAGES (highlighted). Below MESSAGES are links for New, Inbox, and Outbox. The main content area is titled 'My Mail' with a breadcrumb 'Home / Mailbox / Create'. It features a 'Create Mail' form with the following fields: 'To:' (containing 'n'), 'Subject:' (containing 'Admin1 Admin'), and 'Message:' (a large text area). A note above the form states 'Fields in red are required'. The top of the interface includes a search bar and a user profile for 'Admin1'.

(vii) Email Template

The screenshot shows the 'K-LOANS' application interface for creating an email template. The sidebar is similar to the previous screen, with 'EMAIL TEMPLATES' highlighted. The main content area is titled 'Email Template' with a breadcrumb 'Home / Email Templates / Create'. It features a form for creating a template. The 'Template Name' field contains 'Invoice Template'. The 'Placeholder' field contains '{person_name}; {company_name}; {price}'. The 'Template' field is a rich text editor containing the text: 'Dear Sir/Ma'am, Please check your invoice. Regards'. The 'Descriptions' field is empty. A note above the form states 'Fields in red are required'. A green notification banner at the top right says 'You have successfully saved template'. The bottom of the form has 'Close' and 'Submit' buttons. The top of the interface includes a search bar and a user profile for 'Admin1'.

(viii) List of Employees

K-LOANS

Admin1
admin@loans.com

HOME

EMAIL TEMPLATES

BORROWERS

ROLES

MY WALLET

LOANS

MESSAGES

MISSED PAYMENTS

PAYMENTS

EMPLOYEES

Type your search here...

List of Employees

Home / Employees / List

Employees

New Employee Delete E-Mail

Show 50 register

Type your search here.. Select staff

ID	Last Name	First Name	Username	E-Mail	Phone Number	Action
1	Admin	Admin1	admin	admin@loans.com	421-2583	edit

Showing records 1 to 1 of 1 total records

Previous 1 Next

(ix) List of Borrowers

K-LOANS

Admin1
admin@loans.com

HOME

EMAIL TEMPLATES

BORROWERS

ROLES

MY WALLET

LOANS

MESSAGES

MISSED PAYMENTS

Type your search here...

List of Borrowers

Home / Borrowers / Add

Borrower Information

Personal Information Financial Information Attachment

Fields in red are required

Photo:

Browse

First Name: Demo

(x) List of Roles

K-LOANS

Admin1
admin@loans.com

HOME

EMAIL TEMPLATES

BORROWERS

ROLES

MY WALLET

LOANS

MESSAGES

MISSED PAYMENTS

Type your search here...

Admin1 Admin

List of Roles

Home / Roles / Add

Role Information

Fields in red are required

Role Name:

Lower level: ☐ admin ☐ Staff

Permissions: Check the boxes below to grant access to modules

- ☐ Email Templates: List and Search Email Templates
- ☐ Borrowers: Add, Update, Delete, and Search borrowers
- ☐ Roles: List and Search Roles
- ☐ Loan Types: Add, Update, Delete, and Search Loan Types
- ☐ My Wallet: List and Search My Wallet Records

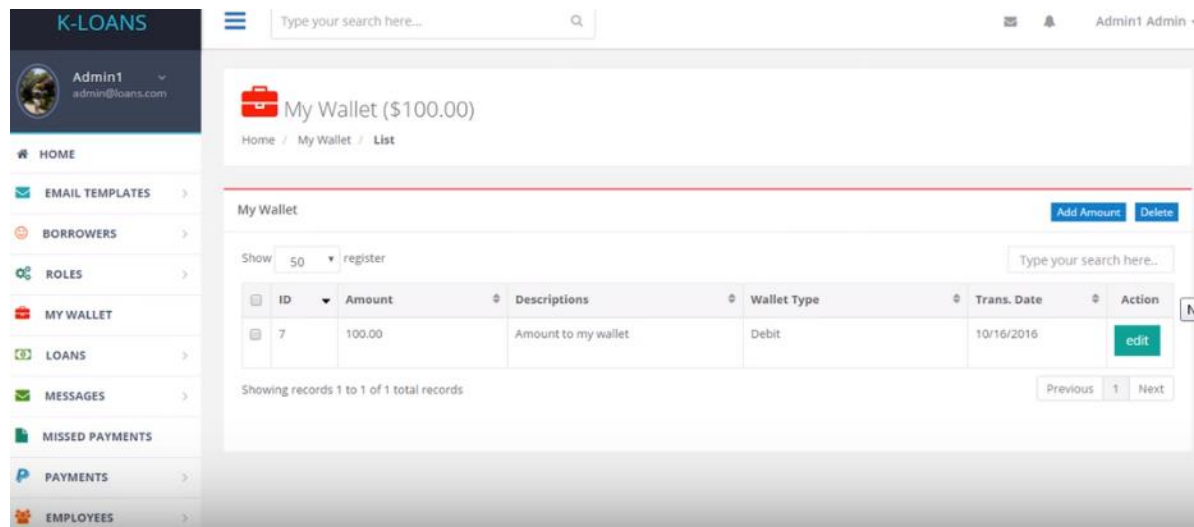
(xi) EMI Calculation

Security	Directory	Loan Processing	Accounting	Transactions	View
Edit	Delete	Preview	OK	Cancel	

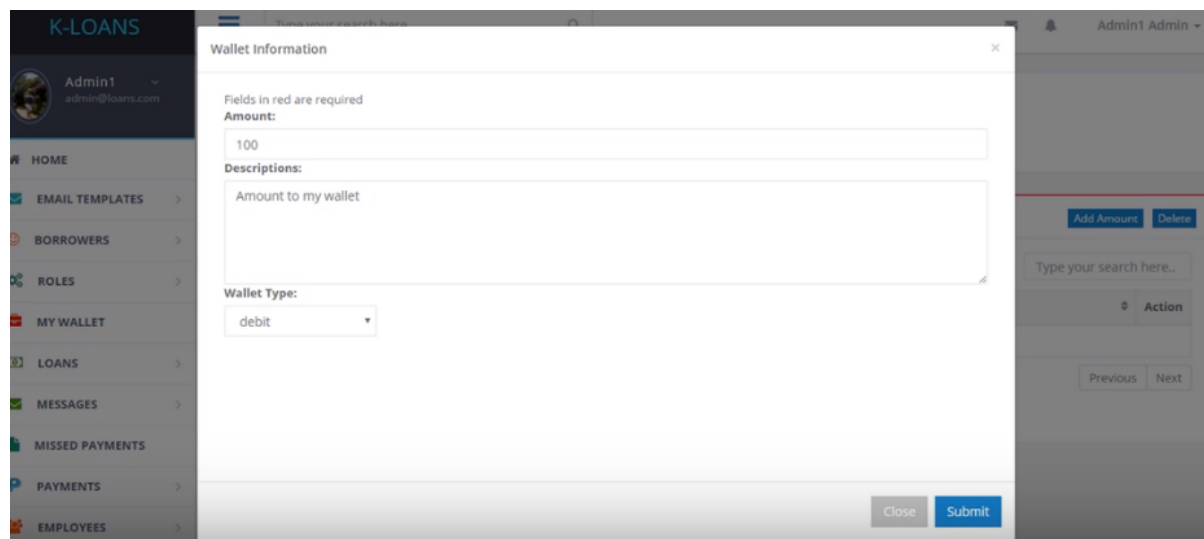
350000	Interest Rate	11.88
36		Load EMI

nth	Principal Balanced	Monthly Interest	Principal Reduced	Monthly EMI Amount
1	350000	3465.00	8139.96	11604.96
2	341860.04	3384.41	8220.55	11604.96
3	333639.49	3303.03	8301.93	11604.96
4	325337.56	3220.84	8384.11	11604.96
5	316953.44	3137.84	8467.12	11604.96
6	308486.32	3054.01	8550.95	11604.96
7	299935.37	2969.36	8635.60	11604.96
8	291299.77	2883.87	8721.09	11604.96
9	282578.68	2797.53	8807.43	11604.96
10	273771.25	2710.34	8894.62	11604.96
11	264876.63	2622.28	8982.68	11604.96
12	255893.95	2533.35	9071.61	11604.96
13	246822.34	2443.54	9161.42	11604.96

(xii) Wallet



(xiii) Wallet Info



5. Conclusion

The outcome provides a loan automation application that saves paper works throughout the life of the loan, and makes available its design, a guide or foundation towards creation of similar or improved systems. The Loan Automation Application Software would help boost a lending institution's customer service in many ways, and make the lending operations more efficient and transparent. The computational speed, accuracy and storage capabilities of the computer would merge with the creativity and intuition of the human to make it all a success.

