

Project Specifications

E – Pay System

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1. Abstract

'LuLu' Bank has been providing standard banking services to its almost captive customers who have been with the bank for several decades. Bank has been able to retain these customers primarily because of their personalized and timely services. For all these years, LuLu bank made minimal investments in its technology platform and various systems. As a result, LuLu bank has not been able to offer value added financial services and responsiveness to its customers.

To survive in the industry, the LuLu bank has planned to launch a product called 'E- Pay' System. This system will enable the bank customers to pay their bills through online. Customers each time do not need to pay their bills by banking online transactions. Instead simply they can add the vendors or shops whatever regular transactions they are having with. Once the customers registered for this service, they need to add the billers or vendors to whom they need to pay the bill. For example, if a customer regularly paying the insurance premium, then the insurance company can be added as one of the billers in the system. Then, the payment is made automatically for the biller, by the mentioned due date. Similarly the customer can add an installment, loan payment, premium payment etc. This system helps the customers to avoid last minute rush.

2. High Level Design Specification

The project contains the following main modules.

- Registration
 - Billing Service
 - History
 - Admin
 - Search
-
- **Registration Module:**

This module allows the users to register themselves. The registered users can sign in to their account and perform the activities like adding billers information, managing billers, viewing history of payments etc.
 - **Billing Service Module:**

This module allows the customer to enjoy the billing service provided by the bank. It provides options for adding new biller information, updating or deleting the biller information, providing the payment schedule etc.

- **History Module:**

The customer can view the payment history. This module provides the details such as the payment scheduled, payment made for the billers etc.

- **Admin Module:**

This module allows the admin to perform admin activities. Through this module the admin can perform administrator activities like making announcements, managing the service of paying the billers etc. The admin can generate and view report such as list of users registered for 'E-Pay' service, payment made by the bank to billers, transaction details etc.

- **Search Module**

This module is used to search the information by entering a criteria such as billers name, date etc.

3. Mandatory Requirements

- **User-defined exceptions must be generated.**

The following are the sample scenarios where user-defined exceptions required. Identify the other mandatory requirements and implement them.

- a. Entering Invalid user id
- b. Entering Invalid user name and password etc.

- **Primary Key and foreign key constraints must be specified in database design.**

- **Session management must be implemented.**

Session tracking or management must be properly maintained between the pages until the user log outs the session.

4. Best Practices

The development team must follow the best practices.

1. Coding Standard

- Methods and class names must be meaningful
- Meaningful names for variables
- Meaningful names for controls. To clearly identify the controls, the controls name can start with the control name followed by their functionality name

Project Specification

Sample

txtCustomerName – text field which is used to enter the customer name

btSubmit – button to submit the fields entry

2. Validation for all the fields

- Missing of mandatory fields entry
- Entering numbers for name field etc.
- Identify the other required validation and implement them.

3. Layout design and arrangement of the controls must be proper in UI design

4. Title messages for each dialog and screen must be meaningful.

5. Deliverables Expected

- Project Documentation Report
- Database script file
- UI design document

6. Database Design

A partial database schema is given below. Additional tables or attributes may be added as per requirement. These database tables are samples only.

CUSTOMER_DETAILS

Field	Description
Customer_Id	Customer ID
Customer_Name	Customer Name
username	UserName
password	Password
Bill_Pay_Registered	To check the Bill Pay

ACCOUNT

Field	Description
Acct_no	Account Number
Customer_Id	Customer ID for reference

Ac_type	Type of account
Account_Balance	To know the current
Bill_Pay_Prefered	To checking the Preference of the Bill Payment

BILLER_DEATILS

Field	Description
Billor_id	To keep track of baill
Customer_Id	Customer ID for Reference
Billor Name	Billor Name
address	Billor Address
City	Billor city
Pin	Billor city Pin Number
Category_Code	Category Code
Status	To check the status of the biller either active are inactive

PAYMENT_DEATILS

Field	Description
Payment_Instr_No	Payment Instr Number
Ac_no	Account Number
Billor_Id	Bill ID for Refence
Payment_Due_Date	Payment date
Amount	Amount for bill payment
Recurring_Instr	Recurring Instr
Last_Processed_Date	Due date for Bill payment

PAYMENT_DETAILS

Field	Description
Payment_No	Payment Reference Number
Ac_no	Account Number from witch payment is made


Project Specification

Biller_Id	Bill ID for reference
Payment_Date	Payment made date
Amount	Amount for bill payment
Category_Code	Category code

1. SCREEN DESIGN

User Login

LOGIN



UserID

Password

[Forgot password?](#) New User? [Register here!](#)

Registration

E - Pay System

Home About us Report Bill Email Resources Links

Bill Payment Registration

Customer Name : M Karthik

Preferred Account1

Preferred Account2

Terms & Condition

I hereby declare that I have read the terms and conditions completely as mentioned in the Bill Payment Agreement and I unconditionally agree to abide by these terms and conditions. *

Managing Billers

The screenshot displays the 'E - Pay System' web application interface. At the top, there is a yellow header with the text 'E - Pay System'. Below the header is a navigation bar with links: Home, About us, Contact Us, Email, Resources, and Login. The main content area features a form titled 'Modify Biller Information'. The form contains the following fields: Biller Name (text input), Address (text input), City (text input), Pin Code (text input), Category (dropdown menu with '--Select--' as the current selection), and Status (radio buttons for 'Active' and 'Inactive'). At the bottom of the form are two buttons: 'Submit' and 'Back'.

Payment History

The screenshot displays the 'E - Pay System' web application interface. At the top, there is a yellow header with the text 'E - Pay System'. Below the header is a navigation bar with links: Home, About us, Contact Us, Email, Resources, and Login. The main content area features a form titled 'View Payment History'. The form contains the following fields: Category (dropdown menu with 'Telecom' as the current selection), From (date input field with '01/01/2016' as the value), and To (date input field with '31/01/2016' as the value). Below these fields are two buttons: 'Search' and 'Cancel'. At the bottom of the form is a table with the following columns: Date, AC No, Biller, Amount, and Category. The table has five rows of data.

Date	AC No	Biller	Amount	Category