



# PAYMENTS SYSTEM

# Payments System

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## 1 Business Requirements & Rules

- Biller is an entity (vendor / service provider) to whom payments can be made from bank by existing account holders. Each Biller will be uniquely identified by Biller Code. Bank will maintain a master list of billers. (E.g Biller could be Mobile Service Provider (Airtel, Vi, Jio etc) or Electricity Companies etc)
- If Account Holder intends to make payment from the account to the biller, he / she can register the biller by selecting biller from master list and consumer number. Consumer Number could be mobile number or electric meter number etc for which account holder intends to pay bill through the account. While registration account holder can choose whether to auto-pay the bill. Auto-pay feature would pay the bill automatically 3 days before the due date. Account Holder can set a limit on maximum auto-pay amount. If auto-pay is ON and bill amount is greater than auto-pay limit bill will not be paid automatically.
- Bank Manager will register a new bill by entering the following information Biller Code, Consumer Number, Bill Number, Bill Amount, Due Date. Email Notification will be send to the account holder from Biller + Consumer Number Combination. New bills will have status of PENDING.
- Account Holder should be able to
  - See a list of his / her own registered billers, create a new one (See Above)
  - See bills uploaded and scheduled payments
  - Manually pay the bill (override auto-pay if present)
  - See past payments done for all or selected biller
  - Export into CSV all payments done within specified date range
- When bill payment is done account will be debited and email will be sent to account holder. Bill status will be set to PAID.
- All payment transactions would be recorded in transaction table with unique transaction reference / id

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## 2 System Roles (Actors)

- Bank Manager
- Account Holder

## 3 Suggested Classes

- Role - Role ID , Name
- Accounts - Sequence ID, Account Number, Name, Email Address, Current Balance (Populate via backend SQL)
- Account Transaction (Sequence ID, Transaction Reference, Date Time, Amount, Debit/Credit, Description, Bill Reference Number)
- Users (Login ID, Password, Role, Linked Account Sequence ID (Mandatory for Account Holder Role) (Populate via backend SQL), Role ID)
- Master Billers - Biller Code, Name (Populate via backend SQL)
- Registered Billers - Biller Sequence ID, Biller Code, Consumer Number, Account Number, Auto Pay (True/False), Auto Pay Limit( Default NULL)
- Bills - Bill Sequence ID, Biller Code , Consumer Number, Amount, Due Date, Status

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## 4 Use cases

- Login
- Role Bank Manager
  - Create New Bill
- Role Account Holder
  - Delete / View Registered Billers.
  - Add New Biller
  - View Scheduled Bill Payments
  - Manual Payment
  - View Payments done for all or selected biller
  - Export Payments Data in CSV
- Role System - Batch Job
  - Execute Auto pay - run once a day
- Mail Provision

## 5 Sample Data

- Suggested Master List of Billers with the bank

| Biller Code | Name              |
|-------------|-------------------|
| B001        | Airtel            |
| B002        | Jio               |
| B003        | Vi                |
| B011        | Tata Electric     |
| B012        | Adani Electricity |

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