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BGA

# Baitul Mukarram Baboshaye Group Billing System

For

System Analysis And Design



East West University

# SYSTEM ANALYSIS AND DESIGN

(MIS-402)

Prepared For

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DATE: DECEMBER 15, 1999.

East West University

Report - 21

Mr. Pijush K. Paul  
Associate Professor  
Dept. of Business Administration

December 15, 1999

Dear Sir,

Subject: Letter of Transmittal

It gives us immense pleasure in presenting herewith the report, which was assigned to us as partial fulfillment of the MIS-402 report. In preparing this report we had the opportunity to have an insight on System Design in real live. An attempt has been made in this report to identify the concept of system design. We have tried our best to fulfill the requirements of this report.

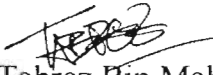
This requirement was very much valuable to us as it helped us to gain experience from practical field and we are grateful to you providing this opportunity of gaining such practical experience.


We must mention here that we are extremely grateful to you for your valuable guidance, tiresome effort and constant attention as and when required in accomplishing this report.


We will be pleased to answer any sort of query you think necessary as now and when needed.


With best regards

Yours sincerely,

  
Tabrez Bin Mahboob  
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## **ACKNOWLEDGEMENT**

We would like to show our sincerest indebtedness to our course instructor Mr. Pijush K. Paul, Associate Professor of the department of business administration for the completion of this report. His heartiest guidance and devotion helped us a great deal not only to complete this report but also to understand and establish a picture of the system design in real live.

We also like to express our thanks to Taskeed Javed for his help.

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## INTRODUCTION

Under Course System Analysis and Design all students are required to submit a group project Paper on System Design with own choice of Topic.

### **Origin Of The Report**

This report on “**Baitul Mukarram Baboshaye Group Billing System**” is submitted on December 15, 1999 to Mr. Pijush K. Paul, course teacher, Management Information System (MIS-402), East West University. Mr. Pijush K. Paul orally authorizes us to prepare the report.

### **The Purpose Of Writing The Report**

The main purpose of writing the report is to fulfill of Management Information System course requirement. Also to develop practical knowledge about the course. Because with out the practical knowledge the implication of the course will not be fulfill.

### **Scope Of The Report**

The world is running through the IT century. The revolution has given us database system, which has a great impact on the business world. Now in our country many organization, like, **Baitul Mukarram Baboshaye Group** is also looking to adapt

the system. So we tried to identify the user requirement and the related problem of implementing the system.

### **Sources Of Data**

The proposed system will be based on the DESA's meter reading. So the primary input or data of the system will be the meter reading.

### **Limitation**

The main limitation of the report is the users. Because, they do not know much about the database system. So they could not clearly express their requirement to us. This was a big problem for us. The other problem that could occur in future is "false meter reading". These were the limitation we faced

### **Development Platform**

1. Visual FoxPro 5
2. Windows 95
3. Hardware Pentium
4. Space – 8MB
5. Y2K free

## ORGANIZATION BACKGROUND

**Baitul Mukarram Baboshaye Group** was established in 1968. The group got registration in 1984. Under group there are about 435 shops. The purpose of the group is to look after the safety, rights and the welfare of the shops. A President, four vice presidents, one secretary, five joint secretaries, and a treasurer run the group. All of them are selected from the 39 members of the group. Part of the welfare, the group had set DESA's meter in last October. Now the group is the customer of DESA. And the shops are the sub customers. The Group does all deals with DESA. The office of the group is located in the roof of the Baitul Mukarram shopping complex. After every two-months they hold a meeting, where all the shops owners attends the meeting. These are all about Baitul Mukarram Baboshaye Group.



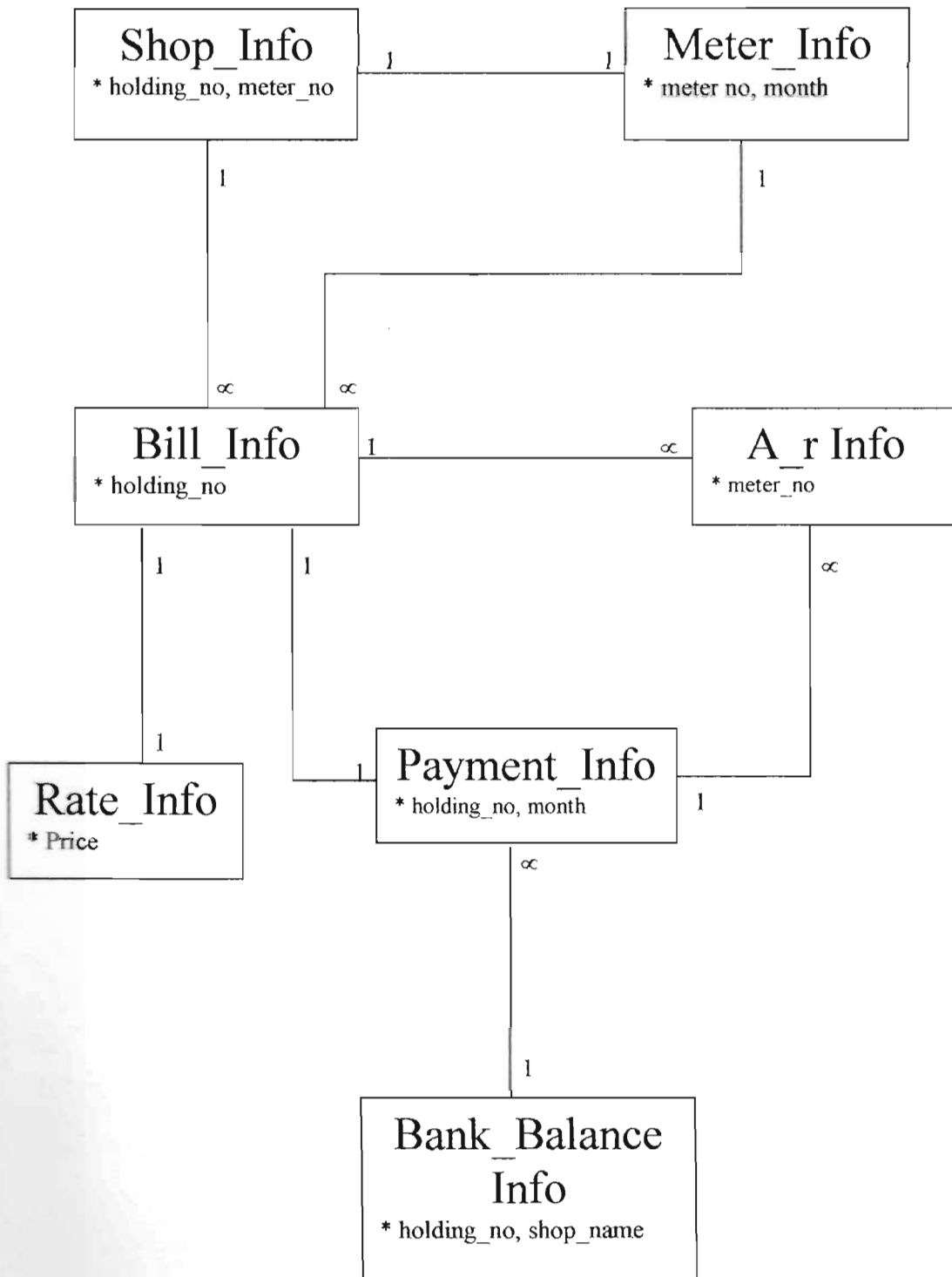
## USER REQUIREMENT

The user of the system is Baitul Mukarram Baboshaye Group. They mainly wanted the system when they set the meters in the shops. But for the less knowledge of any system they could not clear their requirements. So we had to clear our self what they wanted. From few of their clue we determined the following requirement they want:

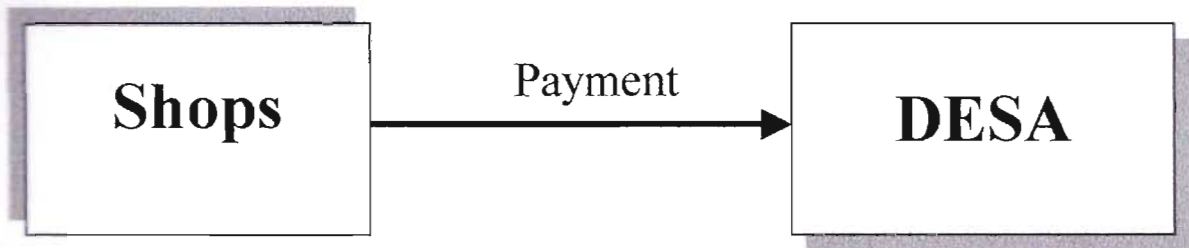
1. They want all the information about shops including meter reading.
2. Than they want to calculate bills of every month.
3. They want the over all bill and the shop wise bill.
4. They want to know the shop names that will pay later or will not pay.
5. They want the payment information to be stored.
6. They also want to keep the bank balance information.
7. Lastly they want all information related to the meter reading.

These were their requirements for the proposed system. But more or less we had to add many things to adjust the process. We have done the system more like Prototype. So we tried to fulfill their requirements.

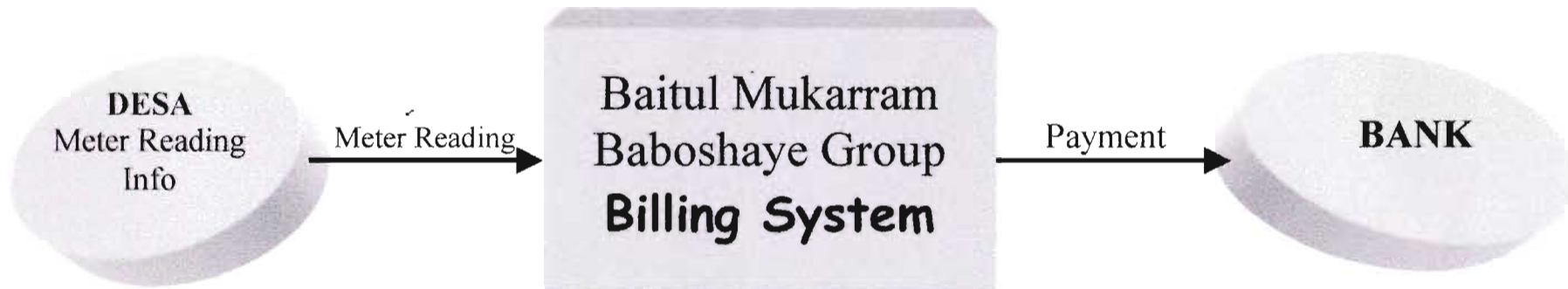
# ENTITY RELATION DIAGRAM



# EXISTING DFD

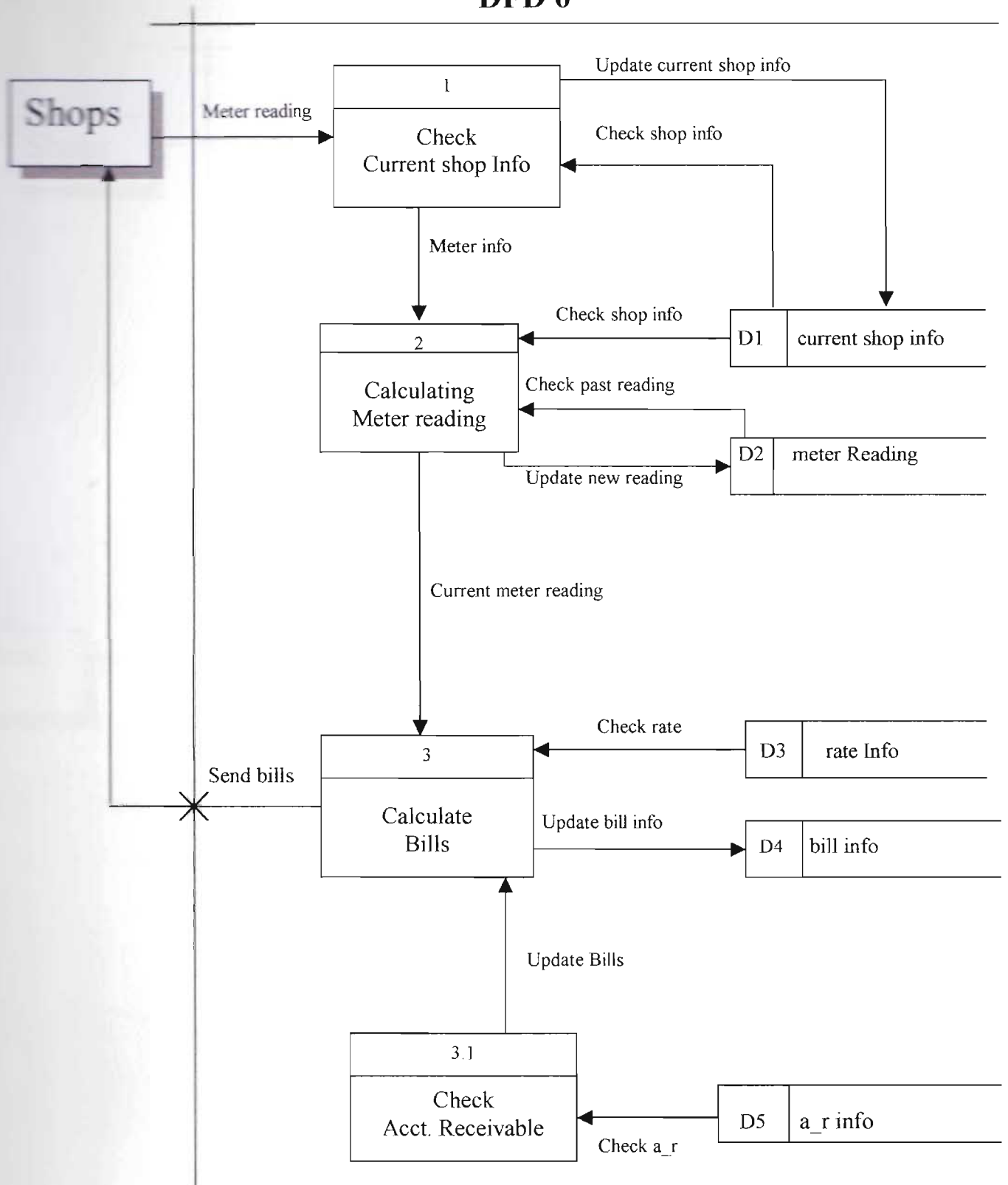


# CONTEXT DIAGRAM

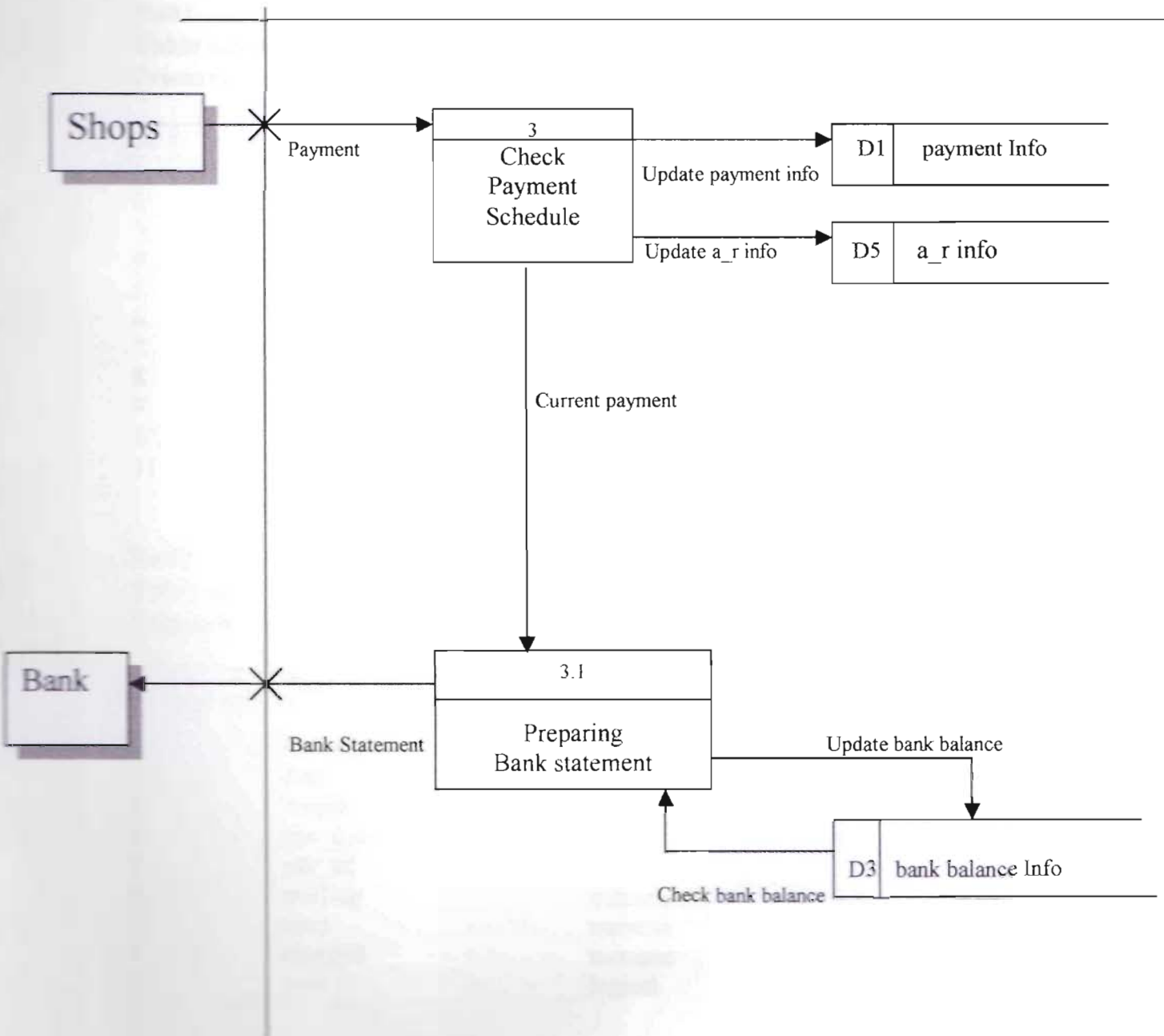


# PROPOSED DFD

# DFD 0



# DFD 1



# PROPOSED TABLES

No#1

Table name: shop\_info

Primary Key: holding\_no, meter\_no

SL #	Field Name	Data Type	Width
1.	holding_no	character	20
2.	shop_name	character	40
3.	owner_name	character	50
4.	position	character	25
5.	meter_no	character	10
6.	ave_	numeric	6,0
7.	nob_pres	character	20
8.	nob_past	character	20
9.	owner_add	character	30
10.	load	numeric	4,0
11.	part_name	character	30

No#2

Table name: meter\_info

Primary Key: meter\_no , month

SL #	Field Name	Data Type	Width
1.	holding_no	character	20
2.	date	date	8
3.	month	date	8
4.	pay_date	date	8
5.	pay_at	date	8
6.	reading	numeric	8,0
7.	used	numeric	8,0
8.	charged	numeric	8,2
9.	paid	logical	1

No#3

Table name: rate\_info

Primary Key: price

SL #	Field Name	Data Type	Width
1.	price	numeric	4,2



No#4

Table name: bill\_info

Primary Key: holding\_number

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	Prev	numeric	6,0
3.	Pres	numeric	6,0

No#5

Table name: a\_r table

Primary Key: meter\_no

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	total_charge	numeric	10,2
3.	total_pay	numeric	10,2
4.	due	numeric	8,2
5.	meter_no	character	10

No#6

Table name: payment\_info

Primary Key: holding\_number, month

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	month	date	8
3.	due	numeric	8,2
4.	payment	numeric	8,2
5.	pay_at	date	8

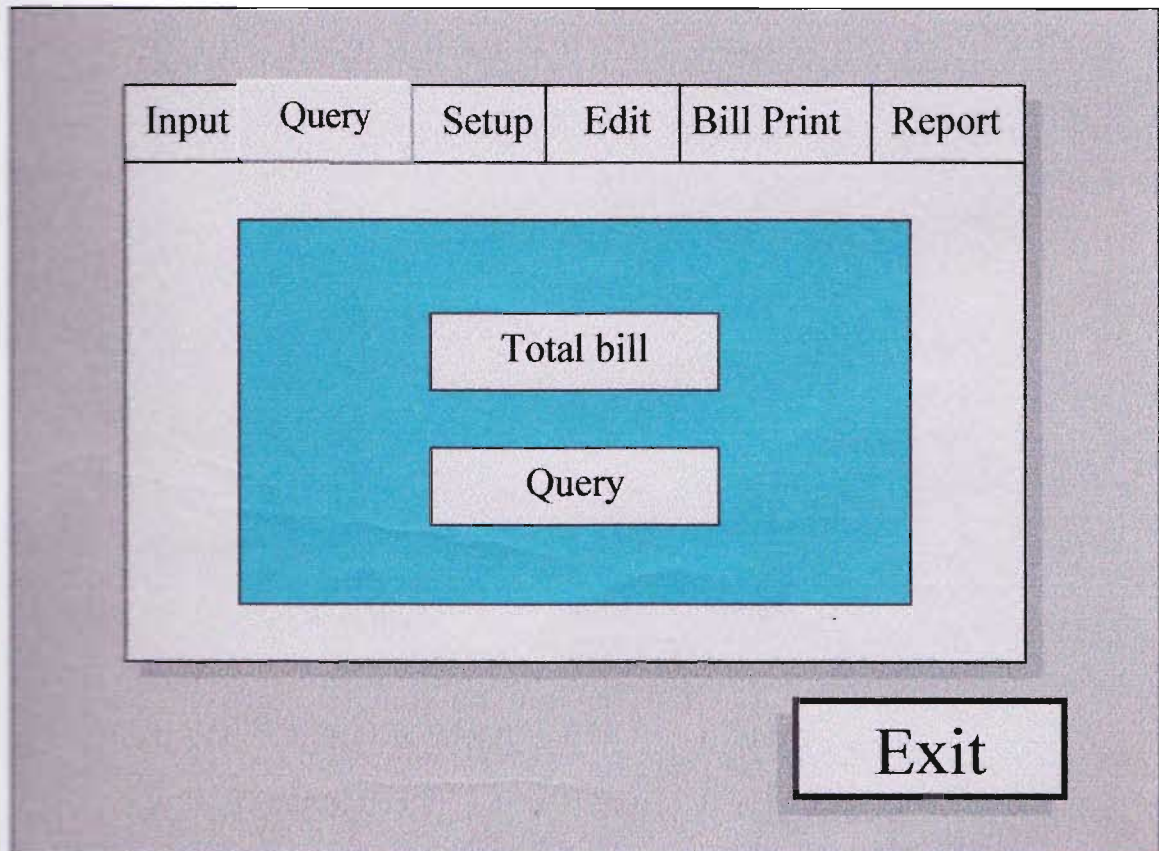
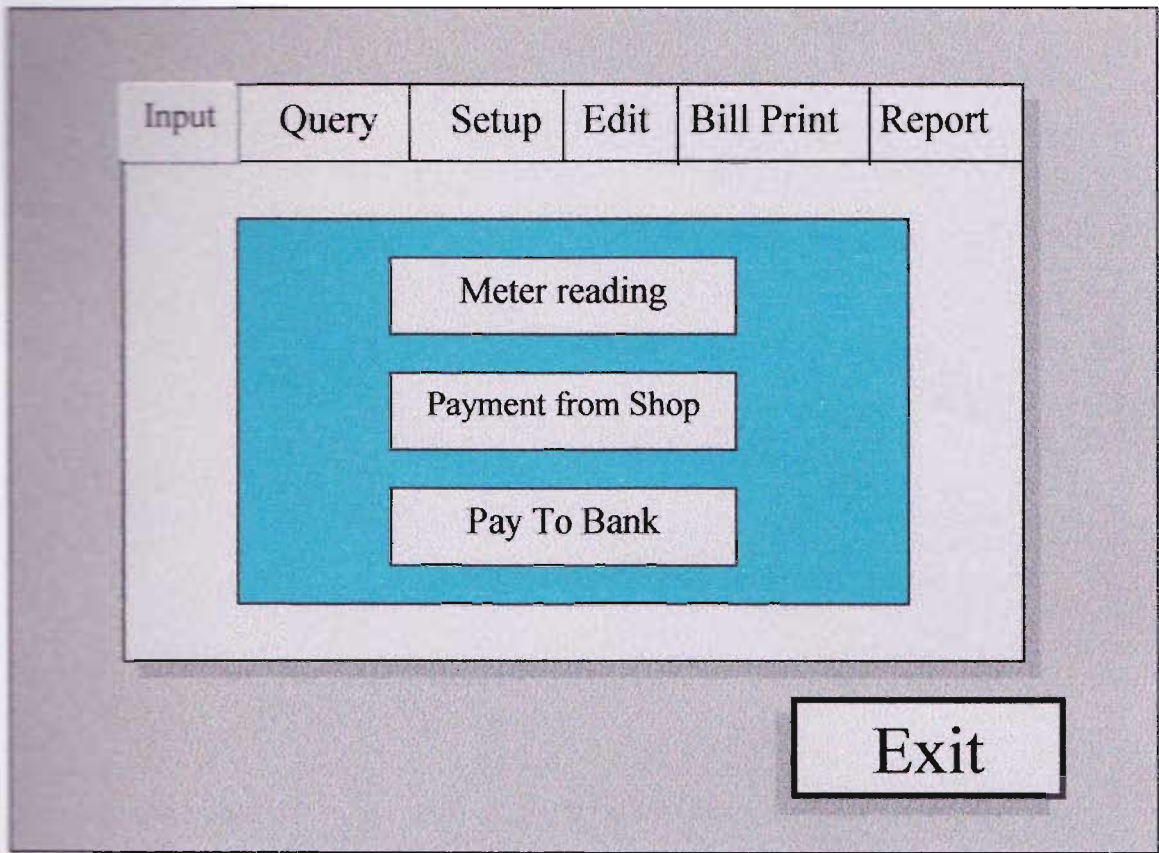
No#7

Table name: bank\_balance\_info

Primary Key: holding\_no, shop\_name

SL #	Field Name	Data Type	Width
1.	total dr	numeric	20,2
2.	total cr.	numeric	20,2
3.	holding_no	character	20
4.	shop_name	character	40

# PROPOSED SCREEN





Input	Query	Setup	Edit	Bill Print	Report
-------	-------	-------	------	------------	--------

Rate Info

Add Shops

Password Setup

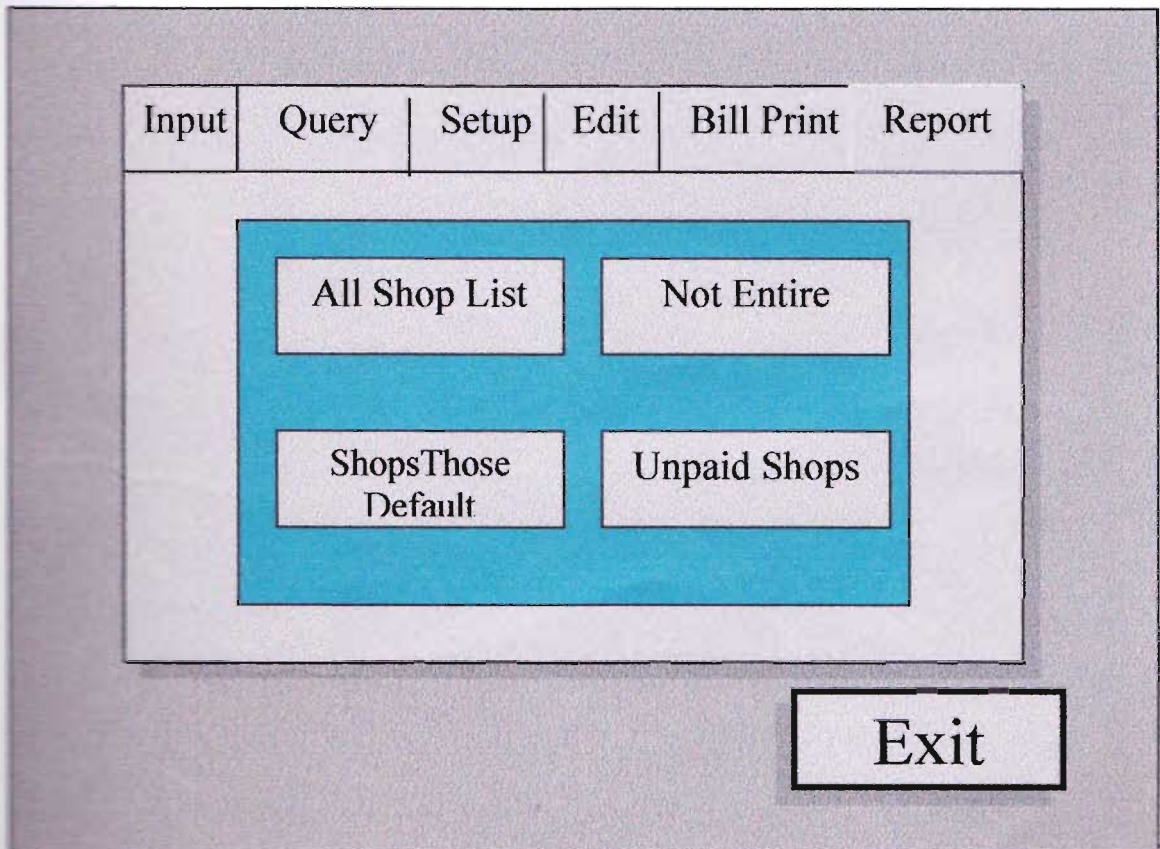
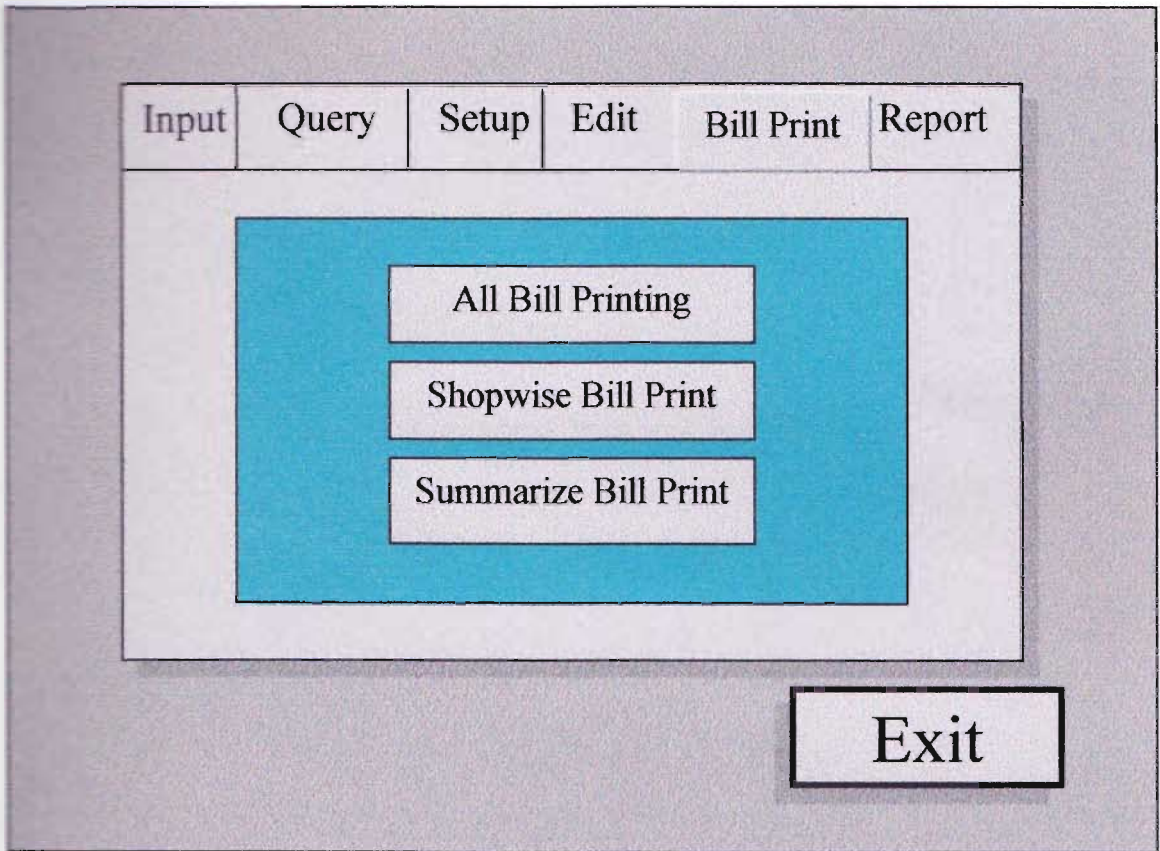
Exit

Input	Query	Setup	Edit	Bill Print	Report
-------	-------	-------	------	------------	--------

Edit Shop list

Edit Meter Info

Exit



# PROPOSED FORMS



# ENTRY FORM OF MONTHLY METER READING

Date	<input style="width: 100%;" type="text"/>		
Billing Month	<input style="width: 50%;" type="text"/>	▼	Billing Year <input style="width: 50%;" type="text"/>
Last Day of Payment	<input style="width: 100%; text-align: center;" type="text" value="//"/>		
Holding No.	<input style="width: 100%;" type="text"/>		
Shop Name	<input style="width: 100%;" type="text"/>		
Current reading	<input style="width: 100%;" type="text"/>		
Used Unit	<input style="width: 50%;" type="text"/>	Price/Unit	<input style="width: 50%;" type="text"/>
Total charge	<input style="width: 100%;" type="text"/>		
<input style="width: 150px; height: 30px; border: 2px solid black;" type="button" value="Save"/>		<input style="width: 150px; height: 30px; border: 2px solid black;" type="button" value="Close"/>	

Table name: meter\_info  
 Primary Key: meter\_no , month

SL #	Field Name	Data Type	Width
1.	holding_no	character	20
2.	date	date	8
3.	month	date	8
4.	pay_date	date	8
5.	pay_at	date	8
6.	reading	numeric	8,0
7.	used	numeric	8,0
8.	charged	numeric	8,2
9.	paid	logical	1

Table name: a\_r table  
 Primary Key: meter\_no

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	total_charge	numeric	10,2
3.	total_pay	numeric	10,2
4.	due	numeric	8,2
5.	meter_no	character	10

# ENTRY FORM OF SHOP INFORMATION

<b>Holding No.</b>	<input style="width: 100%;" type="text"/>		
<b>Shop Name</b>	<input style="width: 100%;" type="text"/>		
<b>Owner's Name</b>	<input style="width: 100%;" type="text"/>		
<b>Owner's Address</b>	<input style="width: 100%;" type="text"/>		
<b>Tenant/Partner</b>	<input style="width: 100%;" type="text"/>		
<b>Present NOB</b>	<input style="width: 50%;" type="text"/>	<b>Past NOB</b>	<input style="width: 50%;" type="text"/>
<b>Load</b>	<input style="width: 50%;" type="text"/>	<b>Position</b>	<input style="width: 50%;" type="text"/>
<b>Meter No.</b>	<input style="width: 50%;" type="text"/>	<b>Current Reading</b>	<input style="width: 50%;" type="text"/>
<input style="width: 100%; height: 30px;" type="button" value="Save"/>		<input style="width: 100%; height: 30px;" type="button" value="Close"/>	

Table name: shop\_info

Primary Key: holding\_no, meter\_no

SL #	Field Name	Data Type	Width
1.	holding_no	character	20
2.	shop_name	character	40
3.	owner_name	character	50
4.	position	character	25
5.	meter_no	character	10
6.	ave_	numeric	6,0
7.	nob_pres	character	20
8.	nob_past	character	20
9.	owner_add	character	30
10.	load	numeric	4,0
11.	part_name	character	30

Table name: bill\_info

Primary Key: holding\_number

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	Prev	numeric	6,0
3.	Pres	numeric	6,0



# ENTRY FORM OF MONTHLY PAYMENT

Holding No.	<input type="text"/>
Month	<input type="text"/> ▼
Pay At	<input type="text"/>
Payment	<input type="text"/>
Due	<input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Close"/>	

Table name: payment\_info

Primary Key: holding\_number, month

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	month	date	8
3.	due	numeric	8,2
4.	payment	numeric	8,2
5.	pay_at	date	8

Table name: a\_r table

Primary Key: meter\_no

SL #	Field Name	Data Type	Width
1.	holding_number	character	20
2.	total_charge	numeric	10,2
3.	total_pay	numeric	10,2
4.	due	numeric	8,2
5.	meter_no	character	10

## RATE ENTRY FORM

Price/Unit

Table name: rate\_info

Primary Key: price

SL #	Field Name	Data Type	Width
1.	price	numeric	4,2

## PAY FROM TO BANK

Payment Date

Payment to Bank

Table name: bank\_balance\_info

Primary Key: holding\_no, shop\_name

SL #	Field Name	Data Type	Width
1.	total dr	numeric	20,2
2.	total cr.	numeric	20,2
3.	holding_no	character	20
4.	shop_name	character	40

## THE TOTAL BILL FORM

**Bill For Which date**

**Holding No.**

**Show With Wild Card**       **Specific Holding**

**Total Bill**

**Show**      **Close**

## QUERY FORM

**Are All Bills Entered**

**Bank Balance**

**Bill For**

**Bank Balance**

**Show**      **Close**

# PROPOSED REPORTS

# ALL BILL PRINTING

<b>Bill for Which Date</b>	/ /
<div style="display: inline-block; border: 1px solid black; padding: 5px 15px; margin: 5px;">Report</div> <div style="display: inline-block; border: 1px solid black; padding: 5px 15px; margin: 5px 20px;">Close</div>	

## All Bill Printing

### Shop's Copy

<b>Holding No.</b>	XX	<b>Pvs_ Reading</b>	XXXXXX
<b>Shop Name</b>	XXXXXXXXXX	<b>Current Reading</b>	XXXXXX
<b>Shop Address</b>	XXXXXXXXXX	<b>Used Unit</b>	XXXXX
<b>Meter No.</b>	XXXXXXX	<b>Unit/Price</b>	XXXX
<b>Issued Date</b>	XXXXXX	<b>Total charge</b>	XXXXXX
<b>Month</b>	XXXXXX	<b>A_R</b>	XXXXX
<b>Due Date</b>	XXXXXX	<b>Total Bill</b>	XXXXXX

### Group's Copy

<b>Holding No.</b>	XX	<b>Month</b>	XXXXXX
<b>Shop Name</b>	XXXXXXXXXX	<b>Due Date</b>	XXXXXX
<b>Shop Address</b>	XXXXXXXXXX	<b>Total Bill</b>	XXXXXX
<b>Meter No.</b>	XXXXXXX		

### Bank's Copy

<b>Holding No.</b>	XX	<b>Month</b>	XXXXXX
<b>Shop Name</b>	XXXXXXXXXX	<b>Due Date</b>	XXXXXX
<b>Shop Address</b>	XXXXXXXXXX	<b>Total Bill</b>	XXXXXX
<b>Meter No.</b>	XXXXXXX		

# SHOPWISE BILL PRINT

<b>Bill for Which Date</b>	/ /
<b>Holding NO.</b>	
<input type="checkbox"/> <b>Print With Wild Card</b>	
<b>Report</b>	<b>Close</b>

## Shopwise Bill Print

### Shop's Copy

<b>Holding No.</b>	XX	<b>Pvs_ Reading</b>	XXXXXXX
<b>Shop Name</b>	XXXXXXXXXXXX	<b>Current Reading</b>	XXXXXXX
<b>Shop Address</b>	XXXXXXXXXXXX	<b>Used Unit</b>	XXXXXX
<b>Meter No.</b>	XXXXXXXXXX	<b>Unit/Price</b>	XXXX
<b>Issued Date</b>	XXXXXX	<b>Total charge</b>	XXXXXX
<b>Month</b>	XXXXXX	<b>A_R</b>	XXXXXX
<b>Due Date</b>	XXXXXX	<b>Total Bill</b>	XXXXXX

### Group's Copy

<b>Holding No.</b>	XX	<b>Month</b>	XXXXXXX
<b>Shop Name</b>	XXXXXXXXXXXX	<b>Due Date</b>	XXXXXX
<b>Shop Address</b>	XXXXXXXXXXXX	<b>Total Bill</b>	XXXXXX
<b>Meter No.</b>	XXXXXXXXXX		

### Bank's Copy

<b>Holding No.</b>	XX	<b>Month</b>	XXXXXXX
<b>Shop Name</b>	XXXXXXXXXXXX	<b>Due Date</b>	XXXXXX
<b>Shop Address</b>	XXXXXXXXXXXX	<b>Total Bill</b>	XXXXXX
<b>Meter No.</b>	XXXXXXXXXX		

# SUMMARIZE BILL PRINT

Bill for Which Date

Holding NO.

Print With Wild Card  All Bill Print

## Summarize Bill Print

SL#	Holding No.	Shop Name	Current Reading	Used Unit
XX	XX	XXXXXXXXXXXX	XXXXX	XXXXX

# LIST OF ALL SHOPS

## LIST OF ALL SHOPS

<b>Holding No.</b>	XX
<b>Shop Name</b>	XXXXXXXXXXXXXXXXXXXX
<b>Position (Floor)</b>	XX
<b>Owner's Name</b>	XXXXXXXXXXXXXXXXXX
<b>Owner's Address</b>	XXXXXXXXXXXXXXXXXXXX
<b>Nature of Business</b>	XXXXXXXXXXXX
<b>Meter No.</b>	XXXXXXX
<b>Load Assume</b>	XXXXXXX
<b>Average Reading</b>	XXXXXXX



# UNENTERED SHOPS

Not Entered Shops for Which Date

## UNENTERED SHOP'S

SL#	Holding No.	Shop Name
XX	XXX	XXXXXXXXXXXXXXXXXX

# SHOPS THOSE DEFAULT

Default Shop at Which Date

## SHOPS THOSE PAY THERE BILL AFTER DUE DATE

SL#	Holding No.	Shop Name	Type Of Default
XX	XX	XXXXXXXXXXXX	XXXXXXXXXXXX

# UNPAID SHOPS

Unpaid Shops for Which Date

Unpaid Shops Before the Date

## UNPAID SHOP

<u>SL#</u>	<u>Holding No.</u>	<u>Shop Name</u>	<u>Charge</u>
XX	XX	XXXXXXXXXXXXXXXXXX	
		<b>Last Day of Payment</b>	<b>For The Month</b>
		XXXXXXXXXX	XXXXXXXXXX
			XXXXX

## **CONCLUSION**

From the above report we tried to show the implementation of the proposed system. We also have the scope to train the end user. We are providing one month Training Assistant to the users. The scope of upgradability of the system is open. By the proposed system the Group can decrease corruptions related to the meter reading. Also the system will perform error free function.

There is a plan to develop the proposed system in future, in which the meter reading will come directly. Manual meter reading will be close.

We have tried our best to make the report error free.

