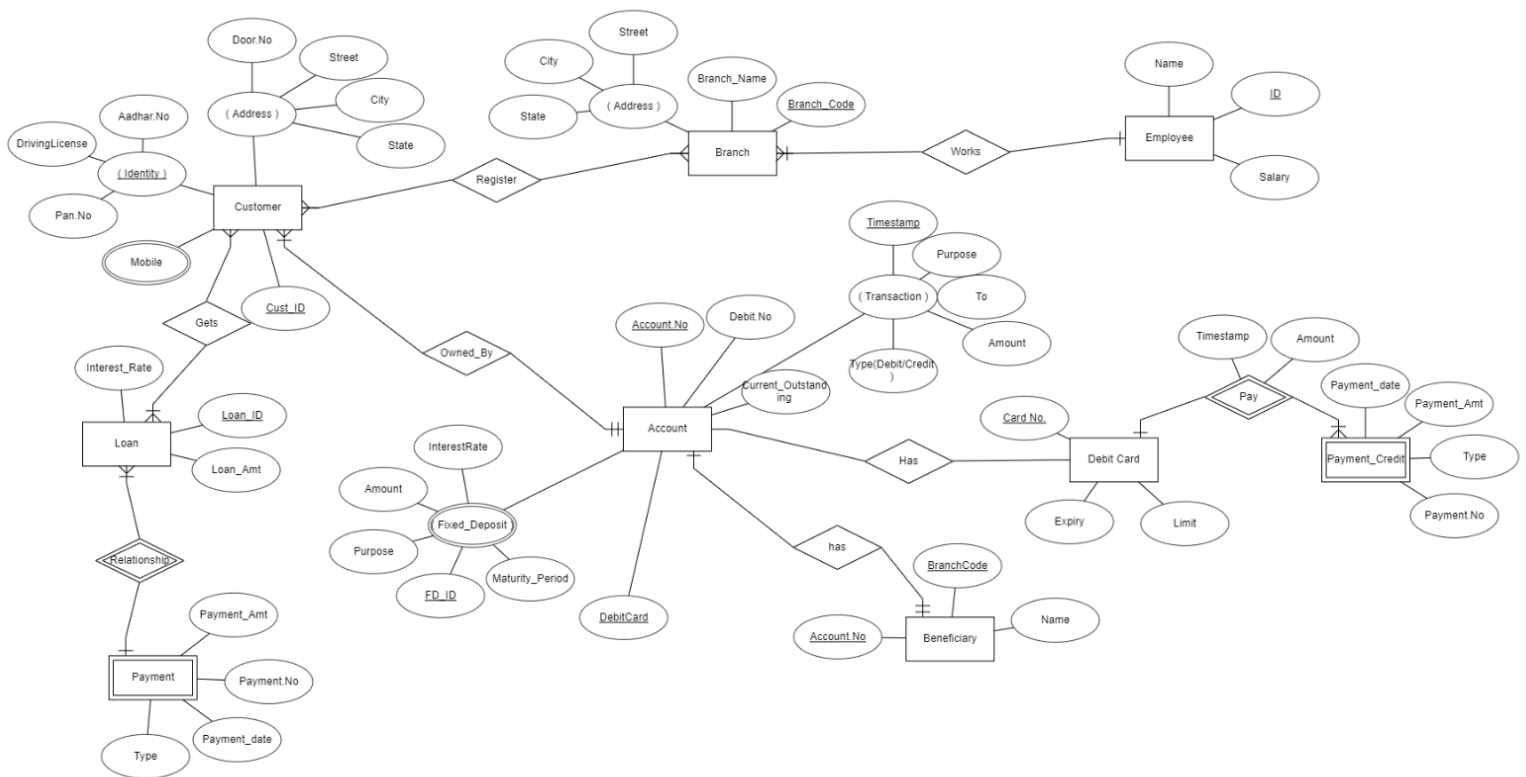


# DBMS PROJECT REPORT

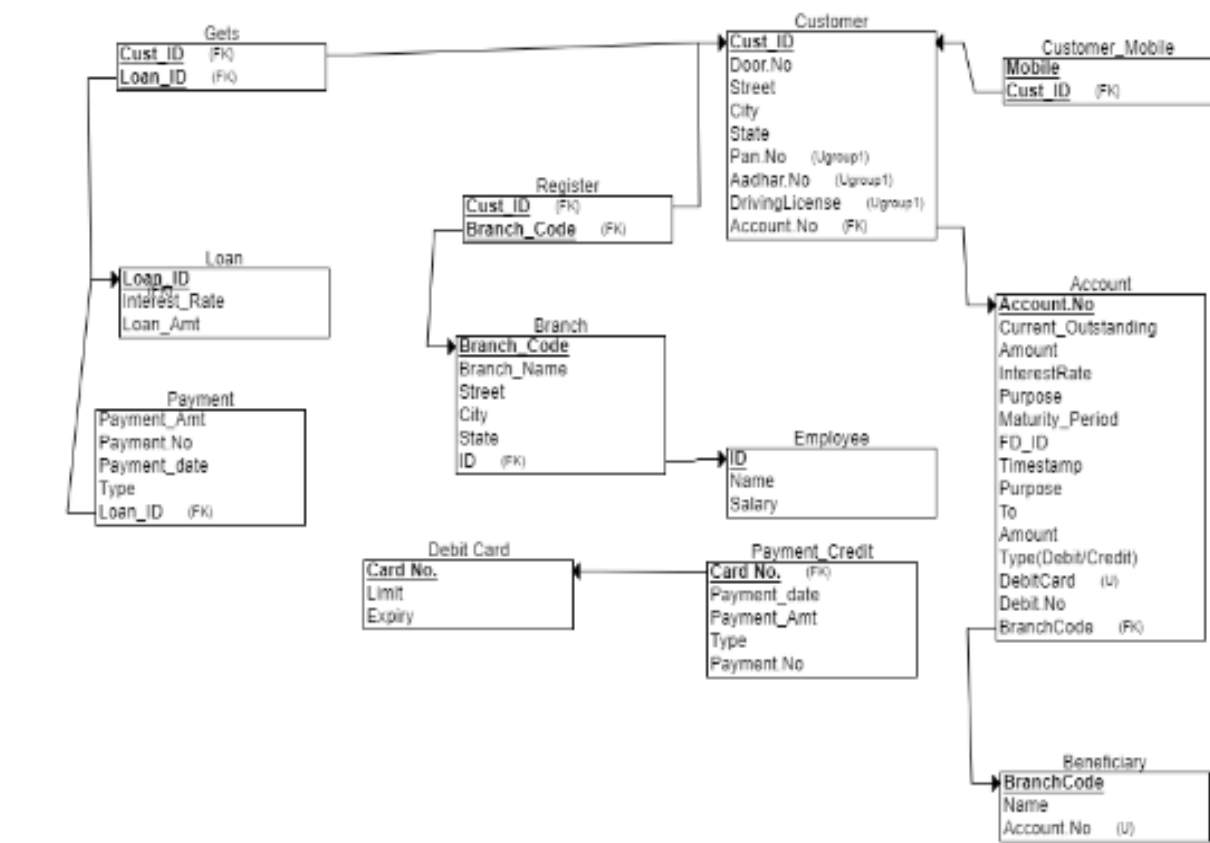
## BANK

Team Members: SECTION : H  
Prisha.Senthilkumar SRN: PES1UG21CS452  
Prarthana P Bhat SRN: PES1UG21CS439

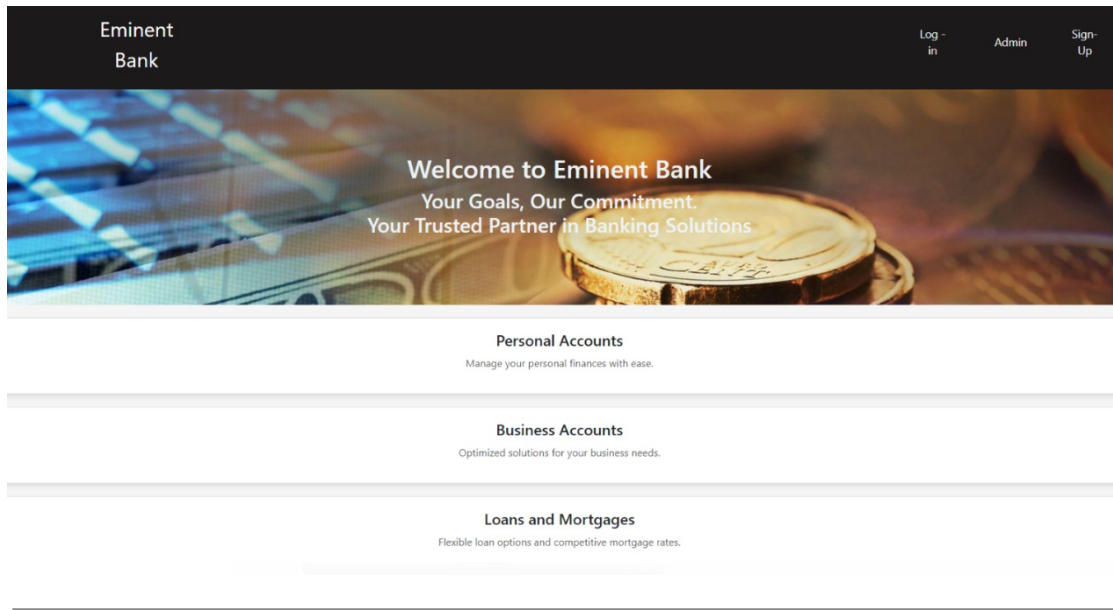
### ER DIAGRAM:



RELATIONAL SCHEMA:



**Normal form :** The database is in 3NF form.



## User Creation/Varied Privileges:

### Admin Login:

Eminent  
Bank

Log -  
inAdminSign-  
Up

Username:

admin2

Password:

\*\*\*\*\*

Login

### Customer Login:

Eminent  
Bank

Log -  
inAdminSign-  
Up

Eminent Bank

Username:

Prarthana

Password:

\*\*\*

Login

```
-- create role users;  
-- create role admin_t;  
-- grant select,update on account to users;  
-- grant all privileges on account_fd to users;  
-- grant all privileges on beneficiary to users;  
-- grant update on customer to users;  
-- grant all privileges on debitcard to users;  
-- grant all privileges on fd to users;  
-- grant all privileges on loan to users;  
-- grant all privileges on loan_payment to users;  
-- grant select,update on notification to users;
```

```

-- grant all privileges on register_login to users;
-- grant all privileges on transaction to users;

-- grant create,update,insert on account to admin_t;
-- grant create,update,insert on account_fd to admin_t;
-- grant select on beneficiary to admin_t;
-- grant all privileges on branch to admin_t;
-- grant all privileges on customer to admin_t;
-- grant create,select,delete,insert on debitcard to admin_t;
-- grant all privileges on employee to admin_t;
-- grant all privileges on fd to admin_t;
-- grant all privileges on job_applicant to admin_t;
-- grant all privileges on loan to admin_t;
-- grant all privileges on loan_payment to admin_t;
-- grant all privileges on notification to admin_t;
-- grant all privileges on recruits to admin_t;
-- grant all privileges on register_admin to admin_t;
-- grant all privileges on register_admin_login to admin_t;
-- grant all privileges on register_login to admin_t;
-- grant all privileges on transaction to admin_t;

```

---

## TRIGGERS:

**Triggers:**

**Without Trigger: Takes negative amount.**

```

495 • drop trigger handle_insert_transaction;
496 -- DELIMITER ;
497
498 -- DELIMITER //
499
500 -- CREATE TRIGGER handle_insert_transaction
501 -- BEFORE INSERT ON transaction
502 -- FOR EACH ROW
503 -- BEGIN
504 --     IF NEW.amount < 0 THEN
505 --         SIGNAL SQLSTATE '45000'
506 --         SET MESSAGE_TEXT = 'Error: Negative amount not allowed for insertion into transaction table.';
507 --     END IF;
508 --
509

```

localhost:3000/transaction

YouTube Maps

localhost:3000 says  
Your transaction was successful

OK

Eminent Bank

Home Sign-out

# Transaction

Beneficiary:

Name: Prarthana Account: 36 ☒

Name: Prarthana Account: 36 ☐

Amount to be Paid:

-5

Pay

With trigger: Shows invalid amount.

localhost:3000/transaction

Gmail YouTube Maps microsoft/ML-For-B... microsoft/ML-For-B... 25 Python Projects... Untitled - f

localhost:3000 says  
invalid amount!

OK

# Transaction

Beneficiary:

Name: pqr Account: 4 ☒

Name: Alice Account: 5 ☐

Name: Prisha Account: 8 ☐

Name: aaa Account: 9 ☐

Amount to be Paid:

-1

Queries used:

INSERT OPERATIONS:

```
1)INSERT INTO beneficiary (accountNo, fname, toAccountNo, toname) VALUES  
(?, ?, ?, ?)
```

Before insertion:

```
mysql> select * from beneficiary;
```

| accountNo | fname     | toAccountNo | toname |
|-----------|-----------|-------------|--------|
| 3         | abc       | 4           | pqr    |
| 3         | Abc       | 5           | Alice  |
| 4         | Pqr       | 5           | Alice  |
| 4         | Pqr       | 6           | Bob    |
| 7         | Prarthana | 4           | pqr    |
| 7         | Prarthana | 5           | Alice  |
| 7         | Prarthana | 8           | Prisha |
| 4         | Pqr       | 3           | Abc    |
| 7         | Prarthana | 9           | aaa    |

9 rows in set (0.00 sec)

After:

Eminent Bank

HomeSign-out

Add beneficiary

Your Name:

Prarthana

Beneficiary Account No:

6

Beneficiary Account Name:

Bob

Submit

```
mysql> select * from beneficiary;
```

| accountNo | fname     | toAccountNo | toname |
|-----------|-----------|-------------|--------|
| 3         | abc       | 4           | pqr    |
| 3         | Abc       | 5           | Alice  |
| 4         | Pqr       | 5           | Alice  |
| 4         | Pqr       | 6           | Bob    |
| 7         | Prarthana | 4           | pqr    |
| 7         | Prarthana | 5           | Alice  |
| 7         | Prarthana | 8           | Prisha |
| 4         | Pqr       | 3           | Abc    |
| 7         | Prarthana | 9           | aaa    |

2)select current\_outstanding from account

```
where accountno = ?
```

```
mysql> select current_outstanding from account  
-> where accountno = 7;
```

| current_outstanding |
|---------------------|
| 81952               |

1 row in set (0.00 sec)

Eminent  
Bank

[Home](#)

[Sign-  
out](#)

Your Balance

Your Current Balance

Account:

Balance: Rs81952.00

3) `SELECT toname, toAccountno`

```
FROM beneficiary
WHERE accountno IN (
    SELECT accountno
    FROM beneficiary
    WHERE accountno = 7
)
```

```
mysql> SELECT toname, toAccountno
-> FROM beneficiary
-> WHERE accountno IN (
-> SELECT accountno
-> FROM beneficiary
-> WHERE accountno = 7
-> )
-> ;
```

| toname | toAccountno |
|--------|-------------|
| pqr    | 4           |
| Alice  | 5           |
| Prisha | 8           |
| aaa    | 9           |

Eminent BankHomeSign-out

Transaction

Beneficiary:

Name: pqr Account: 4

Name: Alice Account: 5

Name: Prisha Account: 8

Name: aaa Account: 9

☐

☐

☐

☐

4) `select email from notification where accountNo = 7;`



```
mysql> select email from notification where accountNo = 7;
+-----+
| email |
+-----+
| prarthanapb14@gmail.com |
+-----+
1 row in set (0.00 sec)
```

#### 5) update employee

```
set salary=salary+(salary*(2/100));
```

```
mysql> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| empId | fname | lname | phno | salary | adharNo | emailId | managerId | branchId |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | Johny | Abraham | 8909867867 | 82999.9 | 456745678356 | abc1@gmail.com | NULL | 1 |
| 3 | Abraham | Jobh | 6767644444 | 92027.3 | 123456789098 | abc796@gmail.com | 2 | 1 |
| 4 | Abraham | Lincoln | 6767644465 | 59637.3 | 123456789088 | abc79633@gmail.com | 2 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

After:

Eminent  
Bank

Sign-  
Out

Admin

Settings

Enter Bonus percentage:

Apply Bonus

```
mysql> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| empId | fname | lname | phno | salary | adharNo | emailId | managerId | branchId |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | Johny | Abraham | 8909867867 | 84659.9 | 456745678356 | abc1@gmail.com | NULL | 1 |
| 3 | Abraham | Jobh | 6767644444 | 93867.9 | 123456789098 | abc796@gmail.com | 2 | 1 |
| 4 | Abraham | Lincoln | 6767644465 | 60830.1 | 123456789088 | abc79633@gmail.com | 2 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

### JOIN OPERATION:

```

6) SELECT fd.fd_id, fd.principal, fd.interest, fd.openingDate,
fd.closingDate, fd.amount
FROM fd
INNER JOIN account_fd AS a ON fd.fd_id = a.fd_id
WHERE a.accountNo = 7;

```

```

mysql> SELECT fd.fd_id, fd.principal, fd.interest, fd.openingDate, fd.closingDate, fd.amount
-> FROM fd
-> INNER JOIN account_fd AS a ON fd.fd_id = a.fd_id
-> WHERE a.accountNo = 7;
+-----+-----+-----+-----+-----+-----+
| fd_id | principal | interest | openingDate | closingDate | amount |
+-----+-----+-----+-----+-----+-----+
| 16 | 600 | 0.06 | 2023-11-14 | 2024-11-14 | 636 |
| 17 | 600 | 0.06 | 2023-11-14 | 2024-11-14 | 636 |
| 18 | 600 | 0.06 | 2023-11-14 | 2024-11-14 | 636 |
| 20 | 1000 | 0.06 | 2023-11-16 | 2024-11-16 | 1060 |
| 21 | 1000 | 0.06 | 2023-11-24 | 2024-05-24 | 1060 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

7) SELECT * FROM TRANSACTION
WHERE FROMACC = 7
or TOACCNO = 7
ORDER BY TDATE DESC,timestamp desc;
;

```

```

mysql> SELECT * FROM TRANSACTION
-> WHERE FROMACC = 7
-> or TOACCNO = 7
-> ORDER BY TDATE DESC,timestamp desc;
+-----+-----+-----+-----+-----+-----+-----+
| transaction_id | amount | toAccNo | type | timestamp | fromAcc | tdate |
+-----+-----+-----+-----+-----+-----+-----+
| 38 | 300 | 4 | online | 15:33:39 | 7 | 2023-11-24 |
| 37 | 500 | 4 | online | 15:29:52 | 7 | 2023-11-24 |
| 36 | 200 | 4 | debit | 15:34:10 | 7 | 2023-11-23 |
| 35 | 1000 | 9 | online | 15:31:46 | 7 | 2023-11-23 |
| 34 | 100 | 4 | debit | 14:41:39 | 7 | 2023-11-22 |
| 33 | 7 | 8 | online | 12:53:55 | 7 | 2023-11-20 |
| 32 | 6 | 8 | online | 12:52:40 | 7 | 2023-11-20 |
| 31 | 100 | 4 | debit | 12:50:57 | 7 | 2023-11-20 |
| 27 | 1000 | 4 | online | 12:48:21 | 7 | 2023-11-16 |
| 26 | 8 | 4 | online | 12:10:36 | 7 | 2023-11-16 |
| 25 | 2 | 4 | online | 12:06:44 | 7 | 2023-11-16 |
| 24 | 5 | 3 | online | 12:05:17 | 7 | 2023-11-16 |
| 23 | 2 | 4 | online | 11:44:21 | 7 | 2023-11-16 |
+-----+-----+-----+-----+-----+-----+-----+
13 rows in set (0.00 sec)

```

| Eminent Bank      |        |               |        |           |              |            |
|-------------------|--------|---------------|--------|-----------|--------------|------------|
|                   |        |               |        |           | Home         | Sign-out   |
| Your Transactions |        |               |        |           |              |            |
| Transaction ID    | Amount | To Account No | Type   | Timestamp | From Account | Date       |
| 38                | Rs300  | 4             | online | 15:33:39  | 7            | 2023-11-23 |
| 37                | Rs500  | 4             | online | 15:29:52  | 7            | 2023-11-23 |
| 36                | Rs200  | 4             | debit  | 15:34:10  | 7            | 2023-11-22 |
| 35                | Rs1000 | 9             | online | 15:31:46  | 7            | 2023-11-22 |
| 34                | Rs100  | 4             | debit  | 14:41:39  | 7            | 2023-11-21 |
| 33                | Rs7    | 8             | online | 12:53:55  | 7            | 2023-11-19 |
| 32                | Rs6    | 8             | online | 12:52:40  | 7            | 2023-11-19 |
| 31                | Rs100  | 4             | debit  | 12:50:57  | 7            | 2023-11-19 |
| 27                | Rs1000 | 4             | online | 12:48:21  | 7            | 2023-11-15 |
| 26                | Rs8    | 4             | online | 12:10:36  | 7            | 2023-11-15 |

8)SELECT \* FROM LOAN WHERE ACC\_NO = 7;

```
mysql> SELECT * FROM LOAN WHERE ACC_NO = 7;
```

| loanId | amount | rate | acc_no | toBePaid | principal | ltime | timeLeft | time_yrs |
|--------|--------|------|--------|----------|-----------|-------|----------|----------|
| 4      | 248    | 0.12 | 7      | 200      | 200       | 2025  | 2023     | 2        |
| 5      | 680    | 0.12 | 7      | 600      | 500       | 2026  | 2023     | 3        |
| 6      | 1120   | 0.12 | 7      | 1000     | 1000      | 2024  | 2023     | 1        |
| 7      | 224    | 0.12 | 7      | 224      | 200       | 2024  | 2023     | 1        |

Eminent Bank

Home

Sign-out

[Your loans](#)

[Make payment](#)

[Apply for loan](#)

Your Loans

| Loan ID | Loan Amount | Interest Rate | Account Number | To Be Paid | Principal | Loan time | Time Left | Time in Years |
|---------|-------------|---------------|----------------|------------|-----------|-----------|-----------|---------------|
| 4       | Rs248       | 0.12%         | 7              | Rs200      | Rs200     | 2025      | 2023      | 2             |
| 5       | Rs680       | 0.12%         | 7              | Rs600      | Rs500     | 2026      | 2023      | 3             |
| 6       | Rs1120      | 0.12%         | 7              | Rs1000     | Rs1000    | 2024      | 2023      | 1             |
| 7       | Rs224       | 0.12%         | 7              | Rs224      | Rs200     | 2024      | 2023      | 1             |

### AGGREGATE FUNCTION:

9)select \* from account where Current\_Outstanding = Max(Current\_Outstanding)

| Account Number | Current Outstanding | Customer Id | Branch |
|----------------|---------------------|-------------|--------|
| 7              | 81946               | 8           | 1      |

### NESTED QUERY:

To get details of account holders who didn't even pay 50% of their loan amount.

```
10)select AccountNo,mobile,email from
(notification inner join
(select acc_no from
(select * from (select lp.loan_id from loan_payment lp where
lp.loan_id in (select loanID from loan l where
l.toBePaid>=0.5* l.amount))lid
inner join loan on loan.loanID=lid.loan_id)
getacct) final on notification.AccountNo=final.acc_no);
```

### Loan Unpaid

| Account Number | Email Address          | Mobile No  |
|----------------|------------------------|------------|
| 7              | prathanapb14@gmail.com | 7022342380 |

### PROCEDURES:

---

```
1. call loan_connect(?,?);
```

Before procedure call

mysql> select \* from account;

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 83152               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

7 rows in set (0.00 sec)

mysql> select \* from loan;

| loanId | amount | rate | acc_no | toBePaid | principal | ltime | timeLeft | time_yrs |
|--------|--------|------|--------|----------|-----------|-------|----------|----------|
| 2      | 224    | 0.12 | 4      | 0        | 200       | 2024  | 2023     | 1        |
| 3      | 224    | 0.12 | 4      | 124      | 200       | 2024  | 2023     | 1        |
| 4      | 248    | 0.12 | 7      | 200      | 200       | 2025  | 2023     | 2        |
| 5      | 680    | 0.12 | 7      | 600      | 500       | 2026  | 2023     | 3        |
| 6      | 1120   | 0.12 | 7      | 1120     | 1000      | 2024  | 2023     | 1        |

5 rows in set (0.00 sec)

mysql> select \* from loan\_payment;

| loan_id | lstatus    | paid_amt | payment_date | paymentNo | ltype |
|---------|------------|----------|--------------|-----------|-------|
| 2       | complete   | 224      | 2023-11-20   | 3         | LOAN  |
| 3       | incomplete | 100      | 2023-11-21   | 1         | LOAN  |
| 4       | incomplete | 48       | 2023-11-24   | 1         | LOAN  |
| 5       | incomplete | 80       | 2023-11-24   | 1         | LOAN  |
| 6       | incomplete | 0        | 2023-11-23   | 0         | LOAN  |

5 rows in set (0.00 sec)

After procedure call:

Paying loan\_id 6 from account number 7

GUI:

Eminent  
Bank

HomeSign-out

Your loans

Make payment

Apply for loan

Your Name:

Prarthana

Loan id:

6

Loan Amount:

120

Pay

AFTER UPDATE :

```
mysql> select * from account;
+-----+-----+-----+-----+-----+
| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
+-----+-----+-----+-----+-----+
| 3 | 9014 | 1 | NULL | 3 |
| 4 | 13107 | 1 | NULL | 4 |
| 5 | 50515 | 1 | NULL | 6 |
| 6 | 40018 | 1 | NULL | 7 |
| 7 | 83152 | 1 | NULL | 8 |
| 8 | 614 | 1 | NULL | 9 |
| 9 | 1300 | 1 | NULL | 10 |
+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> select * from loan;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| loanId | amount | rate | acc_no | toBePaid | principal | ltime | timeLeft | time_yrs |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 224 | 0.12 | 4 | 0 | 200 | 2024 | 2023 | 1 |
| 3 | 224 | 0.12 | 4 | 124 | 200 | 2024 | 2023 | 1 |
| 4 | 248 | 0.12 | 7 | 200 | 200 | 2025 | 2023 | 2 |
| 5 | 680 | 0.12 | 7 | 600 | 500 | 2026 | 2023 | 3 |
| 6 | 1120 | 0.12 | 7 | 1000 | 1000 | 2024 | 2023 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from loan_payment;
+-----+-----+-----+-----+-----+-----+
| loan_id | lstatus | paid_amt | payment_date | paymentNo | ltype |
+-----+-----+-----+-----+-----+-----+
| 2 | complete | 224 | 2023-11-20 | 3 | LOAN |
| 3 | incomplete | 100 | 2023-11-21 | 1 | LOAN |
| 4 | incomplete | 48 | 2023-11-24 | 1 | LOAN |
| 5 | incomplete | 80 | 2023-11-24 | 1 | LOAN |
| 6 | incomplete | 120 | 2023-11-24 | 1 | LOAN |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

2. call apploan(?,?,?);

Before procedure call:

```
mysql> select * from loan;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| loanId | amount | rate | acc_no | toBePaid | principal | ltime | timeLeft | time_yrs |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 224 | 0.12 | 4 | 0 | 200 | 2024 | 2023 | 1 |
| 3 | 224 | 0.12 | 4 | 124 | 200 | 2024 | 2023 | 1 |
| 4 | 248 | 0.12 | 7 | 200 | 200 | 2025 | 2023 | 2 |
| 5 | 680 | 0.12 | 7 | 600 | 500 | 2026 | 2023 | 3 |
| 6 | 1120 | 0.12 | 7 | 1000 | 1000 | 2024 | 2023 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

After procedure call:

Eminent Bank

HomeSign-out

[Your loans](#)
[Make payment](#)
[Apply for loan](#)

Interest for loan is 12% per annum

Name:

Prarthana

Loan Amount:

200

Time (in years):

1

Apply

```
mysql> select * from loan;
```

| loanId | amount | rate | acc_no | toBePaid | principal | ltime | timeLeft | time_yrs |
|--------|--------|------|--------|----------|-----------|-------|----------|----------|
| 2      | 224    | 0.12 | 4      | 0        | 200       | 2024  | 2023     | 1        |
| 3      | 224    | 0.12 | 4      | 124      | 200       | 2024  | 2023     | 1        |
| 4      | 248    | 0.12 | 7      | 200      | 200       | 2025  | 2023     | 2        |
| 5      | 680    | 0.12 | 7      | 600      | 500       | 2026  | 2023     | 3        |
| 6      | 1120   | 0.12 | 7      | 1000     | 1000      | 2024  | 2023     | 1        |
| 7      | 224    | 0.12 | 7      | 224      | 200       | 2024  | 2023     | 1        |

```
6 rows in set (0.00 sec)
```

```
mysql> select * from loan_payment;
```

| loan_id | lstatus    | paid_amt | payment_date | paymentNo | ltype |
|---------|------------|----------|--------------|-----------|-------|
| 2       | complete   | 224      | 2023-11-20   | 3         | LOAN  |
| 3       | incomplete | 100      | 2023-11-21   | 1         | LOAN  |
| 4       | incomplete | 48       | 2023-11-24   | 1         | LOAN  |
| 5       | incomplete | 80       | 2023-11-24   | 1         | LOAN  |
| 6       | incomplete | 120      | 2023-11-24   | 1         | LOAN  |
| 7       | incomplete | 0        | 2023-11-24   | 0         | LOAN  |

```
6 rows in set (0.00 sec)
```

3. call fd(?,?,?,?);

```
drop procedure fd;
```

```
DELIMITER //
```

```
CREATE PROCEDURE fd(
```

```
    IN accno INT,
```

```
    IN amount FLOAT,
```

```
    IN time INT,
```

```
    IN nominee VARCHAR(25)
```

```
)
```

```
BEGIN
```

```
    DECLARE currentOutstanding FLOAT;
```

```
    DECLARE openingDate DATE;
```

```

DECLARE closingDate DATE;
DECLARE interestRate FLOAT;
DECLARE compoundInterest FLOAT;
DECLARE finalAmount float;

DECLARE fd_no int;

-- Check if the account has sufficient funds
SELECT Current_Outstanding INTO currentOutstanding
FROM account
WHERE AccountNo = accno;

IF currentOutstanding >= amount THEN
    -- Deduct the amount from the current outstanding
    UPDATE account
    SET Current_Outstanding = currentOutstanding - amount
    WHERE AccountNo = accno;

    -- Set opening date (assuming today is the opening date)
    SET openingDate = CURDATE();

    -- Set closing date
    SET closingDate = DATE_ADD(openingDate, INTERVAL time MONTH);

    -- Set interest rate (assuming 6% interest per annum)
    SET interestRate = 0.06;

    -- Calculate compound interest
    SET compoundInterest = amount * POW((1 + interestRate / 12),
(time/12));

    -- Insert into fd table
    INSERT INTO fd (maturity_period, principal, interest,nominee,
openingDate, closingDate, amount)
    VALUES (time, amount, 0.06, nominee,openingDate, closingDate,
compoundInterest);

    SELECT 'FD created successfully.' AS message;

```



```
ELSE
    SELECT 'Error: Insufficient funds.' AS message;
END IF;

select fd_id into fd_no
from fd
order by fd_id desc
limit 1;

insert into account_fd(accountNO,fd_id) values(accno,fd_no);

END //

DELIMITER ;
```

Before procedure call:

```
mysql>
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 82952               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

```
7 rows in set (0.00 sec)
```

```
mysql> select * from fd;
```

| fd_id | maturity_period | principal | interest | nominee | openingDate | closingDate | amount |
|-------|-----------------|-----------|----------|---------|-------------|-------------|--------|
| 10    | 3               | 600       | 0.06     | Susan   | 2023-11-10  | 2024-02-10  | 636    |
| 11    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 12    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 13    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 14    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 15    | 3               | 600       | 0.06     | Ram     | 2023-11-10  | 2024-02-10  | 636    |
| 16    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 17    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 18    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 19    | 12              | 1000      | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 1060   |
| 20    | 12              | 1000      | 0.06     | Ram     | 2023-11-16  | 2024-11-16  | 1060   |

```
11 rows in set (0.00 sec)
```

```
mysql> select * from account_fd;
```

| account_fd_id | accountNo | fd_id |
|---------------|-----------|-------|
| 3             | 4         | 10    |
| 4             | 4         | 11    |
| 5             | 4         | 12    |
| 6             | 4         | 13    |
| 7             | 4         | 14    |
| 8             | 4         | 15    |
| 9             | 7         | 16    |
| 10            | 7         | 17    |
| 11            | 7         | 18    |
| 12            | 4         | 19    |
| 13            | 7         | 20    |
| 14            | 4         | 20    |

```
12 rows in set (0.00 sec)
```

After procedure call:

[Create fd](#)[Your FDs](#)

The rate of interest for the loan is 6%

Your Name:

Prarthana

Amount:

1000

Nominee:

Ram

Time in months:

6

Submit

```
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 81952               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

7 rows in set (0.00 sec)

```
mysql> select * from fd;
```

| fd_id | maturity_period | principal | interest | nominee | openingDate | closingDate | amount |
|-------|-----------------|-----------|----------|---------|-------------|-------------|--------|
| 10    | 3               | 600       | 0.06     | Susan   | 2023-11-10  | 2024-02-10  | 636    |
| 11    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 12    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 13    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 14    | 12              | 1000      | 0.06     | Ram     | 2023-11-10  | 2024-11-10  | 1060   |
| 15    | 3               | 600       | 0.06     | Ram     | 2023-11-10  | 2024-02-10  | 636    |
| 16    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 17    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 18    | 12              | 600       | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 636    |
| 19    | 12              | 1000      | 0.06     | Ram     | 2023-11-14  | 2024-11-14  | 1060   |
| 20    | 12              | 1000      | 0.06     | Ram     | 2023-11-16  | 2024-11-16  | 1060   |
| 21    | 6               | 1000      | 0.06     | Ram     | 2023-11-24  | 2024-05-24  | 1060   |

12 rows in set (0.00 sec)

```
mysql> select * from account_fd;
```

| account_fd_id | accountNo | fd_id |
|---------------|-----------|-------|
| 3             | 4         | 10    |
| 4             | 4         | 11    |
| 5             | 4         | 12    |
| 6             | 4         | 13    |
| 7             | 4         | 14    |
| 8             | 4         | 15    |
| 9             | 7         | 16    |
| 10            | 7         | 17    |
| 11            | 7         | 18    |
| 12            | 4         | 19    |
| 13            | 7         | 20    |
| 14            | 4         | 20    |
| 15            | 7         | 21    |

13 rows in set (0.00 sec)

5) call delete\_account(?);

```
-- DELIMITER //
-- CREATE PROCEDURE delete_account(IN account_no INT)
-- BEGIN
--     DECLARE lp INT;
--     DECLARE bal_high INT;
--     declare fd_pres int;
--     SET lp = 0;
--     SET bal_high = 0;
--     set fd_pres =0;
--     IF Balance_high(account_no) THEN
--         SET bal_high = 1;
--     END IF;
--     IF fd_present(account_no) THEN
--         SET fd_pres = 1;
--     END IF;
--
--     IF loan_present(account_no) THEN
--         SET lp = 1;
--     END IF;
--
--     IF lp = 0 AND bal_high = 0 and fd_pres=0 THEN
--         delete from account where accountno =account_no;
--         DELETE FROM customer where cust_id = ( select cust_id from account WHERE accountno = account_no) ;
--     ELSE
--         if fd_pres=1 then
--             select "Cannot Delete account.Fd is present for this account." as Message;
--         end if;
--         IF lp = 1 AND bal_high = 0 THEN
--             SELECT "Cannot delete account. Loan still pending" AS Message;
--         ELSEIF lp = 0 AND bal_high = 1 THEN
--             SELECT "Cannot delete account. Current balance is high. Make your current balance minimum" AS Message;
--         ELSE
--             SELECT "Cannot delete account. Loan pending and current balance is higher than 300" AS Message;
--         END IF;
--     END IF;
-- END//
-- DELIMITER ;
```

---

**Before procedure call:**

Enter Account Number:

12

Search

Loans

Fixed Deposit

Delete Account

Customer Account Details:

| Account Number | First Name | Last Name | Current_Outstanding | Aadhar Number |
|----------------|------------|-----------|---------------------|---------------|
| 12             | newacc     | abc       | 300                 | 823456789333  |

```
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 81952               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |
| 12        | 300                 | 1           | NULL           | 14      |

8 rows in set (0.00 sec)

After:

```
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 81952               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

7 rows in set (0.00 sec)

6)new account:  
Before

```
mysql> select * from customer;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Cust_ID | FirstName | LastName | DoorNo | Street | City | PanNo | AadharNo | DrivingLicense | phno |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | Abc | Xyz | 21 | roseStreet | Bangalore | ABCTY1234D | 123456789123 | NULL | NULL |
| 4 | Pqr | Xyz | 21 | lilyStreet | Bangalore | AACTY1234D | 113456789123 | NULL | NULL |
| 6 | Alice | H | 20 | rosestreet | Bangalore | ACCTY1234D | 113456789155 | NULL | NULL |
| 7 | Bob | H | 25 | rosestreet | Bangalore | ADDTY1234D | 113456766155 | NULL | NULL |
| 8 | Prarthana | Bhat | 1 | JHGJJ | abdjfl | BDDTY1234D | ADDTY1234D | 123336789123 | 7022342380 |
| 9 | prisha | sentil | 23 | alsjflajl | bangalore | ASDFF2323L | 123456789333 | NULL | NULL |
| 10 | agy | asf | 154 | sahvka | bangalore | BSDFF2323L | 123456789311 | NULL | NULL |
| 12 | afa | asfa | 54 | afas | bangalore | ASDFF2323B | 123456789310 | NULL | NULL |
| 13 | afa | asfa | 12 | alsjflajl | bangalore | ASDFF2323Z | 123456789222 | NULL | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)

mysql> select * from account;
+-----+-----+-----+-----+-----+
| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
+-----+-----+-----+-----+-----+
| 3 | 9014 | 1 | NULL | 3 |
| 4 | 13107 | 1 | NULL | 4 |
| 5 | 50515 | 1 | NULL | 6 |
| 6 | 40018 | 1 | NULL | 7 |
| 7 | 81952 | 1 | NULL | 8 |
| 8 | 614 | 1 | NULL | 9 |
| 9 | 1300 | 1 | NULL | 10 |
+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql> select * from notification;
+-----+-----+-----+
| AccountNo | mobile | email |
+-----+-----+-----+
| 7 | 7022342380 | prarthanapb14@gmail.com |
| 8 | 123456789123 | prishja@gmail.com |
| 9 | 123456789123 | prishja@gmail.com |
| 10 | 123456789123 | pri2019senthil@gmail.com |
| 11 | 123456789123 | pri2019senthil@gmail.com |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

After:

Eminent Bank

Sign-OutAdminSettings

newacc

abc

12

abcdfg

Mumbai

ASDFG2323L

823456789333

NULL

1789567889

newacc@gmail.com

300

1

Create Account

```
mysql> select * from customer;
```

| Cust_ID | FirstName | LastName | DoorNo | Street      | City      | PanNo      | AadharNo     | DrivingLicense | phno       |
|---------|-----------|----------|--------|-------------|-----------|------------|--------------|----------------|------------|
| 3       | Abc       | Xyz      | 21     | roseStreet  | Banglore  | ABCTV1234D | 123456789123 | NULL           | NULL       |
| 4       | Pqr       | Xyz      | 21     | lilyStreet  | Bangalore | AACTV1234D | 113456789123 | NULL           | NULL       |
| 6       | Alice     | H        | 28     | rosetstreet | Bangalore | ACCTV1234D | 113456789155 | NULL           | NULL       |
| 7       | Bob       | H        | 25     | rosetstreet | Bangalore | ADDTV1234D | 113456766155 | NULL           | NULL       |
| 8       | Prarthana | Bhat     | 1      | JHGJJ       | abdjfl    | BDDTV1234D | ADDTV1234D   | 123336789123   | 7822342380 |
| 9       | prisha    | sentil   | 23     | alsjflajl   | bangalore | ASDFF2323L | 123456789333 | NULL           | NULL       |
| 10      | agy       | asf      | 154    | sahvka      | bangalore | BSDFF2323L | 123456789311 | NULL           | NULL       |
| 12      | afa       | asfa     | 54     | afas        | bangalore | ASDFF2323B | 123456789310 | NULL           | NULL       |
| 13      | afa       | asfa     | 12     | alsjflajl   | bangalore | ASDFF2323Z | 123456789222 | NULL           | NULL       |
| 14      | newacc    | abc      | 12     | abcdefg     | mumbai    | ASDFG2323L | 823456789333 | NULL           | NULL       |

10 rows in set (0.00 sec)

```
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 81952               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |
| 12        | 300                 | 1           | NULL           | 14      |

8 rows in set (0.00 sec)

```
mysql> select * from notification;
```

| AccountNo | mobile     | email                    |
|-----------|------------|--------------------------|
| 7         | 7022342380 | prarthanapb14@gmail.com  |
| 8         | 1234598763 | prisjha@gmail.com        |
| 9         | 1234567880 | prisjha@gmail.com        |
| 10        | 1234567800 | pri2019senthil@gmail.com |
| 11        | 1234567822 | pri2019senthil@gmail.com |
| 12        | 1789567889 | newacc@gmail.com         |

6 rows in set (0.00 sec)

```
mysql> select * from debitcard;
```

| account_no | pay_amount | ptime    | tdate      | debitCardNo |
|------------|------------|----------|------------|-------------|
| 8          | NULL       | 17:50:49 | 2023-11-14 | 1           |
| 7          | NULL       | 01:50:49 | 2023-11-12 | 123456      |
| 9          | NULL       | 14:17:50 | 2023-11-23 | 123457      |
| 12         | NULL       | 19:34:43 | 2023-11-25 | 123460      |

4 rows in set (0.00 sec)

## Functions:

```
1. SELECT TransferAmount( senderAccountNo INT,
                           receiverAccountNo INT,
                           transferAmount FLOAT
                           );
```

Before function call:

```
> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 12807               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 83452               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

```
35 rows in set (0.00 sec)
```

```
mysql> select * from transaction;
```

| transaction_id | amount | toAccNo | type   | timestamp | fromAcc | tdate      |
|----------------|--------|---------|--------|-----------|---------|------------|
| 1              | 200    | 4       | online | 18:27:42  | 4       | 2023-11-08 |
| 2              | 500    | 5       | online | 19:23:44  | 4       | 2023-11-08 |
| 3              | 1      | 3       | online | 22:04:56  | 4       | 2023-11-08 |
| 4              | 1      | 3       | online | 22:42:43  | 4       | 2023-11-08 |
| 5              | 1      | 4       | online | 23:15:17  | 4       | 2023-11-13 |
| 6              | 1      | 5       | online | 23:55:36  | 4       | 2023-11-13 |
| 7              | 1      | 3       | online | 23:57:59  | 4       | 2023-11-13 |
| 8              | 1      | 5       | online | 17:44:33  | 4       | 2023-11-14 |
| 9              | 10000  | 4       | online | 18:22:58  | 4       | 2023-11-14 |
| 12             | 600    | 4       | online | 18:32:30  | 4       | 2023-11-14 |
| 13             | 1000   | 4       | online | 18:35:30  | 4       | 2023-11-14 |
| 14             | 1      | 3       | online | 11:59:27  | 4       | 2023-11-15 |
| 15             | 1      | 3       | online | 11:59:45  | 4       | 2023-11-15 |
| 16             | 1      | 5       | online | 11:59:58  | 4       | 2023-11-15 |
| 17             | 1      | 3       | online | 12:00:16  | 4       | 2023-11-15 |
| 18             | 1      | 5       | online | 12:00:41  | 4       | 2023-11-15 |
| 19             | 1      | 5       | online | 12:00:47  | 4       | 2023-11-15 |
| 20             | 1      | 4       | online | 09:23:46  | 4       | 2023-11-16 |
| 21             | 2      | 4       | online | 10:59:16  | 4       | 2023-11-16 |
| 22             | 2      | 4       | online | 11:02:00  | 4       | 2023-11-16 |
| 23             | 2      | 4       | online | 11:44:21  | 7       | 2023-11-16 |
| 24             | 5      | 3       | online | 12:05:17  | 7       | 2023-11-16 |
| 25             | 2      | 4       | online | 12:06:44  | 7       | 2023-11-16 |
| 26             | 8      | 4       | online | 12:10:36  | 7       | 2023-11-16 |
| 27             | 1000   | 4       | online | 12:48:21  | 7       | 2023-11-16 |
| 29             | 1      | 3       | online | 09:09:20  | 4       | 2023-11-17 |
| 30             | 1      | 6       | online | 09:23:46  | 4       | 2023-11-17 |
| 31             | 100    | 4       | debit  | 12:50:57  | 7       | 2023-11-20 |
| 32             | 6      | 8       | online | 12:52:40  | 7       | 2023-11-20 |
| 33             | 7      | 8       | online | 12:53:55  | 7       | 2023-11-20 |
| 34             | 100    | 4       | debit  | 14:41:39  | 7       | 2023-11-22 |
| 35             | 1000   | 9       | online | 15:31:46  | 7       | 2023-11-23 |
| 36             | 200    | 4       | debit  | 15:34:10  | 7       | 2023-11-23 |
| 37             | 500    | 4       | online | 15:29:52  | 7       | 2023-11-24 |
| 38             | 300    | 4       | online | 15:33:39  | 7       | 2023-11-24 |

```
35 rows in set (0.00 sec)
```

After function call:



localhost:3000/transaction?beneficiary=4&amount=500

localhost:3000 says  
Your transaction was successful

## Transaction

Beneficiary:

Name: pqr Account: 4

Name: Alice Account: 5

Name: Prisha Account: 8

Name: aaa Account: 9

Amount to be Paid:

300

Pay

```
mysql> select * from account;
```

| AccountNo | Current_Outstanding | branch_code | credit_card_no | cust_id |
|-----------|---------------------|-------------|----------------|---------|
| 3         | 9014                | 1           | NULL           | 3       |
| 4         | 13107               | 1           | NULL           | 4       |
| 5         | 50515               | 1           | NULL           | 6       |
| 6         | 40018               | 1           | NULL           | 7       |
| 7         | 83152               | 1           | NULL           | 8       |
| 8         | 614                 | 1           | NULL           | 9       |
| 9         | 1300                | 1           | NULL           | 10      |

7 rows in set (0.00 sec)

Rs 300 deducted from account 7 and debited to account 4

```
mysql> select * from transaction;
```

| transaction_id | amount | toAccNo | type   | timestamp | fromAcc | tdate      |
|----------------|--------|---------|--------|-----------|---------|------------|
| 1              | 200    | 4       | online | 18:27:42  | 4       | 2023-11-08 |
| 2              | 500    | 5       | online | 19:23:44  | 4       | 2023-11-08 |
| 3              | 1      | 3       | online | 22:04:56  | 4       | 2023-11-08 |
| 4              | 1      | 3       | online | 22:42:43  | 4       | 2023-11-08 |
| 5              | 1      | 4       | online | 23:15:17  | 4       | 2023-11-13 |
| 6              | 1      | 5       | online | 23:55:36  | 4       | 2023-11-13 |
| 7              | 1      | 3       | online | 23:57:59  | 4       | 2023-11-13 |
| 8              | 1      | 5       | online | 17:44:33  | 4       | 2023-11-14 |
| 9              | 10000  | 4       | online | 18:22:58  | 4       | 2023-11-14 |
| 12             | 600    | 4       | online | 18:32:30  | 4       | 2023-11-14 |
| 13             | 1000   | 4       | online | 18:35:30  | 4       | 2023-11-14 |
| 14             | 1      | 3       | online | 11:59:27  | 4       | 2023-11-15 |
| 15             | 1      | 3       | online | 11:59:45  | 4       | 2023-11-15 |
| 16             | 1      | 5       | online | 11:59:58  | 4       | 2023-11-15 |
| 17             | 1      | 3       | online | 12:00:16  | 4       | 2023-11-15 |
| 18             | 1      | 5       | online | 12:00:41  | 4       | 2023-11-15 |
| 19             | 1      | 5       | online | 12:00:47  | 4       | 2023-11-15 |
| 20             | 1      | 4       | online | 09:23:46  | 4       | 2023-11-16 |
| 21             | 2      | 4       | online | 10:59:16  | 4       | 2023-11-16 |
| 22             | 2      | 4       | online | 11:02:00  | 4       | 2023-11-16 |
| 23             | 2      | 4       | online | 11:44:21  | 7       | 2023-11-16 |
| 24             | 5      | 3       | online | 12:05:17  | 7       | 2023-11-16 |
| 25             | 2      | 4       | online | 12:06:44  | 7       | 2023-11-16 |
| 26             | 8      | 4       | online | 12:10:36  | 7       | 2023-11-16 |
| 27             | 1000   | 4       | online | 12:48:21  | 7       | 2023-11-16 |
| 29             | 1      | 3       | online | 09:09:20  | 4       | 2023-11-17 |
| 30             | 1      | 6       | online | 09:23:46  | 4       | 2023-11-17 |
| 31             | 100    | 4       | debit  | 12:50:57  | 7       | 2023-11-20 |
| 32             | 6      | 8       | online | 12:52:40  | 7       | 2023-11-20 |
| 33             | 7      | 8       | online | 12:53:55  | 7       | 2023-11-20 |
| 34             | 100    | 4       | debit  | 14:41:39  | 7       | 2023-11-22 |
| 35             | 1000   | 9       | online | 15:31:46  | 7       | 2023-11-23 |
| 36             | 200    | 4       | debit  | 15:34:10  | 7       | 2023-11-23 |
| 37             | 500    | 4       | online | 15:29:52  | 7       | 2023-11-24 |
| 38             | 300    | 4       | online | 15:33:39  | 7       | 2023-11-24 |

```
35 rows in set (0.00 sec)
```

Transaction id 38 has been added into transaction table

---