

**A Report**  
**ON**  
**“Database Project Lab”**  
**“Banking Database”**



**Representors**

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# **Banking Database**

## **1) Database Code:**

```
CREATE DATABASE Banking_System;
```

```
USE Banking_System;
```

```
CREATE TABLE Branch(  
Branch_ID INT PRIMARY KEY,  
Branch_Name VARCHAR(50)  
);
```

```
CREATE TABLE employee (  
Employeeid INT PRIMARY KEY,  
Employeeename VARCHAR(50),  
Branch_ID INT,  
Designation VARCHAR(50),  
FOREIGN KEY (Branch_ID) REFERENCES Branch(Branch_ID)  
);
```

```
CREATE TABLE customers (  
Customerid INT PRIMARY KEY,  
Customername VARCHAR(100),  
DOB DATE,  
Address varchar(50),  
Phone VARCHAR(15),  
Email VARCHAR(100) UNIQUE  
);
```

```
CREATE TABLE accounts(  
    Accountid INT PRIMARY KEY,  
    Customerid INT,  
    Accounttype varchar(100),  
    Branch_ID INT,  
    Balance DECIMAL(12,2) DEFAULT 0.00,  
    FOREIGN KEY (Customerid) REFERENCES customers (Customerid),  
    FOREIGN KEY (Branch_ID) REFERENCES Branch(Branch_ID)  
);
```

```
CREATE TABLE transactions(  
    Transactionid INT IDENTITY(24,1) PRIMARY KEY,  
    Accountid INT,  
    Transactiontype VARCHAR(100),  
    Amount DECIMAL(12,2),  
    transaction_date DATE,  
    FOREIGN KEY (Accountid) REFERENCES accounts(Accountid)  
);
```

```
CREATE TABLE transfers (  
    Transferid INT IDENTITY(1,1)PRIMARY KEY,  
    From_Accountid INT,  
    To_Accountid INT,  
    Amount DECIMAL(12,2),  
    FOREIGN KEY (From_Accountid) REFERENCES accounts(Accountid),  
    FOREIGN KEY (To_Accountid) REFERENCES accounts(Accountid)  
);
```

```
CREATE TABLE loans (  
    Loanid INT PRIMARY KEY,  
    Customerid INT,  
    Amount DECIMAL(12,2),  
    Applydate DATE,  
    FOREIGN KEY (Customerid) REFERENCES customers (Customerid),  
);
```

```
CREATE TABLE Complain(  
    Complain_ID INT PRIMARY KEY,  
    Customerid INT,  
    Description VARCHAR(50),  
    FOREIGN KEY (Customerid) REFERENCES customers(Customerid)  
);
```

```
CREATE TABLE LoanDistribution(  
    Distribution_Amount DECIMAL(15,3),  
    Loanid INT  
    FOREIGN KEY (Loanid) REFERENCES loans  
);
```

```
CREATE TABLE AccountCard(  
    Card_ID INT PRIMARY KEY,  
    Accountid INT,  
    Expiry_Date DATE,  
    Status VARCHAR(20),  
    FOREIGN KEY (Accountid) REFERENCES accounts
```

);

```
CREATE TABLE Repayment(  
  Repay_ID INT IDENTITY(601,1) PRIMARY KEY,  
  Loanid INT,  
  Amount DECIMAL(15,3)  
  FOREIGN KEY (Loanid) REFERENCES loans  
);
```

```
CREATE TABLE Service(  
  Customerid INT,  
  Service_Type VARCHAR(50),  
  FOREIGN KEY (Customerid) REFERENCES customers(Customerid)  
);
```

-----view-----

--1. Customers Account Info

```
CREATE VIEW View_Customer_Accounts  
AS  
SELECT
```

```
  customers.Customerid,  
  customers.Customername,  
  customers.Phone,  
  customers.Email,  
  accounts.Accountid,  
  accounts.Accounttype,  
  accounts.Balance,  
  Branch.Branch_Name
```

```
FROM customers
JOIN accounts ON customers.Customerid = accounts.Customerid
JOIN Branch ON accounts.Branch_ID = Branch.Branch_ID;
```

--2. Transaction History

```
CREATE VIEW Transaction_History
```

```
AS
```

```
SELECT
```

```
    transactions.Transactionid,
    transactions.Accountid,
    customers.Customername,
    transactions.Transactiontype,
    transactions.Amount,
    transactions.transaction_date
```

```
FROM transactions
```

```
JOIN accounts ON transactions.Accountid = accounts.Accountid
```

```
JOIN customers ON accounts.Customerid = customers.Customerid;
```

--3. View customer loans

```
CREATE VIEW View_Customer_Loans AS
```

```
SELECT
```

```
    loans.Loanid,
    customers.Customername,
    loans.Amount ,
    loans.Applydate
```

```
FROM
```

```
    loans
```

```
INNER JOIN customers ON loans.Customerid = customers.Customerid;
```

--4. Loan\_Distribution

CREATE VIEW View\_Loan\_Distribution AS

SELECT

loans.Loanid,

customers.Customername,

loans.Amount AS Loan\_Amount,

LoanDistribution.Distribution\_Amount

FROM LoanDistribution

JOIN loans ON LoanDistribution.Loanid= loans.Loanid

JOIN customers ON loans.Customerid = customers.Customerid;

-----  
SELECT \* FROM View\_Loan\_Distribution;  
-----

-----  
--7. View\_Customer\_Services

CREATE VIEW View\_Customer\_Services AS

SELECT

customers.Customerid,

customers.Customername,

Service.Service\_Type

FROM

customers

JOIN Service ON customers.Customerid = Service.Customerid;

-----  
--6. View\_Account\_Cards

CREATE VIEW View\_Account\_Cards AS



```
SELECT
    AccountCard.Card_ID,
    accounts.Accountid,
    customers.Customername,
    AccountCard.Expiry_Date,
    AccountCard.Status
FROM
    AccountCard
JOIN accounts ON AccountCard.Accountid = accounts.Accountid
JOIN customers ON accounts.Customerid = customers.Customerid;
```

--7. View\_Customer\_Services

```
CREATE VIEW View_Customer_Services AS
```

```
SELECT
    customers.Customerid,
    customers.Customername,
    Service.Service_Type
FROM
    customers
JOIN Service ON customers.Customerid = Service.Customerid;
```

--8. Customer\_Complaints

```
CREATE VIEW View_Customer_Complaints AS
```

```
SELECT
    Complain.Complain_ID,
    customers.Customername,
    Complain.Description
```

FROM

Complain

JOIN customers ON Complain.Customerid = Complain.Customerid;

--9. View\_Employee\_Branch

CREATE VIEW View\_Employee\_Branch AS

SELECT

employee.Employeeid,

employee.Employeeename,

Branch.Branch\_Name

FROM

employee

JOIN Branch ON employee.Branch\_ID =Branch.Branch\_ID;

-----View Active Card-----

CREATE VIEW View\_Active\_Cards AS

SELECT

accounts.Accountid,

customers.Customername,

AccountCard.Card\_ID,

AccountCard.Expiry\_Date

FROM AccountCard

JOIN accounts ON AccountCard.Accountid =accounts.Accountid

JOIN customers ON accounts.Customerid = customers.Customerid

WHERE AccountCard.Status = 'Active';

-----procedures-----

```
CREATE PROCEDURE InsertNewCustomer
```

```
    @customerid int ,
```

```
    @Customername VARCHAR(100),
```

```
    @DOB DATE,
```

```
    @Address VARCHAR(50),
```

```
    @Phone VARCHAR(15),
```

```
    @Email VARCHAR(100),
```

```
        @Accountid int,
```

```
    @Accounttype VARCHAR(100),
```

```
    @Balance DECIMAL(12,2)
```

```
AS
```

```
BEGIN
```

```
    INSERT INTO customers (Customerid, Customername, DOB, Address, Phone, Email)
```

```
    VALUES (@customerid,@Customername, @DOB, @Address, @Phone, @Email);
```

```
    INSERT INTO accounts (Accountid, Customerid, Accounttype, Balance)
```

```
    VALUES (@Accountid , @customerid, @Accounttype, @Balance);
```

```
    PRINT 'Customer and account inserted successfully.';
```

```
END;
```

```
----Update Customer Information----
```

```
CREATE PROCEDURE UpdateCustomerInfo
```

```
    @Customerid INT,
```

```
    @Phone VARCHAR(15),
```

```
    @Address VARCHAR(50),
```

```

    @Email VARCHAR(100)
AS
BEGIN
    UPDATE customers
    SET Phone = @Phone,
        Address = @Address,
        Email = @Email
    WHERE Customerid = @Customerid;

    PRINT 'Customer information updated successfully.';
END;

CREATE PROCEDURE ApplyLoan-----
    @Loanid INT,
    @Customerid INT,
    @Amount DECIMAL(12,2),
    @Applydate DATE
AS
BEGIN
    INSERT INTO loans (Loanid, Customerid, Amount, Applydate)
    VALUES (@Loanid, @Customerid, @Amount, @Applydate);

    PRINT 'Loan application submitted.';
END;

CREATE PROCEDURE RecordRepayment-----
    @Repay_ID INT,

```

```

    @Loanid INT,
    @Amount DECIMAL(15,3)
AS
BEGIN
    INSERT INTO Repayment (Repay_ID, Loanid, Amount)
    VALUES (@Repay_ID, @Loanid, @Amount);

    PRINT 'Repayment recorded successfully.';
END;

CREATE PROCEDURE RegisterComplaint-----
    @Complain_ID INT,
    @Customerid INT,
    @Description VARCHAR(50)
AS
BEGIN
    INSERT INTO Complain (Complain_ID, Customerid, Description)
    VALUES (@Complain_ID, @Customerid, @Description);

    PRINT 'Complaint registered successfully.';
END;

CREATE PROCEDURE IssueCard-----
    @Card_ID INT,
    @Accountid INT,
    @Expiry_Date DATE,
    @Status VARCHAR(20)
AS

```

```
BEGIN

    INSERT INTO AccountCard (Card_ID, Accountid, Expiry_Date, Status)

    VALUES (@Card_ID, @Accountid, @Expiry_Date, @Status);

    PRINT 'Card issued successfully.';

END;
```

```
CREATE PROCEDURE DeactivateCard-----

    @Card_ID INT

AS

BEGIN

    UPDATE AccountCard

    SET Status = 'Inactive'

    WHERE Card_ID = @Card_ID;

    PRINT 'Card deactivated.';

END;
```

```
CREATE PROCEDURE DeleteCustomerAccount -----

    @Customerid INT

AS

BEGIN

    DELETE FROM accounts

    WHERE Customerid = @Customerid;

    DELETE FROM customers

    WHERE Customerid = @Customerid;
```

```
PRINT 'Customeraccount deleted successfully.';
END;
```

```
CREATE PROCEDURE ShowData -----
    @Accounttype VARCHAR(100)
AS
BEGIN
    SELECT
customers.Customerid,customers.Customername,accounts.Accountid,accounts.Accounttype,acco
unts.Balance FROM customers
    inner JOIN accounts
        ON
        customers.Customerid = accounts.Customerid
    WHERE accounts.Accounttype = @Accounttype;
END;
```

----- Procedures with transactions -----

```
CREATE PROCEDURE ProcessWithdrawal-----
    @Accountid INT,
    @Amount DECIMAL(10,2),
    @TransactionDate DATE,
    @Transactionid INT
AS
BEGIN
    BEGIN TRANSACTION;
    BEGIN TRY
        UPDATE accounts SET Balance = Balance - @Amount
```

```

WHERE Accountid = @Accountid AND Balance >= @Amount;
IF @@ROWCOUNT=0
BEGIN
ROLLBACK;
PRINT 'Withdrawal failed: Insufficient funds or invalid account';
END
ELSE
BEGIN
INSERT INTO transactions (Transactionid,Accountid, Transactiontype, Amount,
transaction_date)
VALUES (@Transactionid,@Accountid, 'withdrawal', @Amount, @TransactionDate);
COMMIT;
PRINT 'Withdrawal successful';
END
END TRY
BEGIN CATCH
IF @@TRANCOUNT > 0
ROLLBACK;
PRINT 'Withdrawal failed: ' + ERROR_MESSAGE();
END CATCH
END;

```

```

CREATE PROCEDURE ProcessDeposit-----
    @Accountid INT,
    @Amount DECIMAL(10,2),
    @TransactionDate DATE,
    @Transactionid INT -- User must provide transaction ID
AS
BEGIN

```



```

BEGIN TRANSACTION;

BEGIN TRY

UPDATE accounts

SET Balance = Balance + @Amount

WHERE Accountid = @Accountid;

INSERT INTO transactions (Transactionid, Accountid, Transactiontype, Amount,
transaction_date)

VALUES (@Transactionid, @Accountid, 'deposit', @Amount, @TransactionDate);

COMMIT;

PRINT 'Deposit successful';

END TRY

BEGIN CATCH

IF @@TRANCOUNT > 0

ROLLBACK;

PRINT 'Deposit failed: ' + ERROR_MESSAGE();

END CATCH

END;

```

```

CREATE PROCEDURE ProcessTransfer-----

```

```

    @FromAccount INT,
    @ToAccount INT,
    @Amount DECIMAL(10,2),
    @TransactionDate DATE

```

```

AS

```

```

BEGIN

```

```

    BEGIN TRANSACTION;

```

```

    BEGIN TRY

```

```

        -- 1. Update account balances

```

```
UPDATE accounts SET Balance = Balance - @Amount WHERE Accountid =  
@FromAccount;
```

```
UPDATE accounts SET Balance = Balance + @Amount WHERE Accountid =  
@ToAccount;
```

```
-- 2. Record transfer (Transferid auto-generated)
```

```
INSERT INTO transfers (From_Accountid, To_Accountid, Amount)
```

```
VALUES (@FromAccount, @ToAccount, @Amount);
```

```
-- 3. Record transactions (Transactionid auto-generated starting from 24)
```

```
INSERT INTO transactions (Accountid, Transactiontype, Amount, transaction_date)
```

```
VALUES (@FromAccount, 'transfer_out', @Amount, @TransactionDate);
```

```
INSERT INTO transactions (Accountid, Transactiontype, Amount, transaction_date)
```

```
VALUES (@ToAccount, 'transfer_in', @Amount, @TransactionDate);
```

```
COMMIT;
```

```
PRINT 'Transfer completed successfully';
```

```
END TRY
```

```
BEGIN CATCH
```

```
IF @@TRANCOUNT > 0
```

```
ROLLBACK;
```

```
PRINT 'Transfer failed: ' + ERROR_MESSAGE();
```

```
END CATCH
```

```
END;
```

-----

```

-----Repayment Transaction-----
CREATE PROCEDURE ProcessRepayment
    @Loanid INT,
    @RepayAmount DECIMAL(15,3)
AS
BEGIN
    BEGIN TRANSACTION;

    BEGIN TRY
        INSERT INTO Repayment (Loanid, Amount)
            VALUES (@Loanid, @RepayAmount);

        COMMIT;

        PRINT 'Repayment recorded successfully';
    END TRY
    BEGIN CATCH
        IF @@TRANCOUNT > 0
            ROLLBACK;

        PRINT 'Repayment failed: ' + ERROR_MESSAGE();
    END CATCH
END;

```

## **2) Insertion and Execution Code:**

Use Banking\_System;

```

INSERT INTO Branch(Branch_ID,Branch_Name)
VALUES(1,'Multan'),
(2,'Lahore'),
(3,'karachi');

```

```

INSERT INTO accounts (Accountid, Customerid, Accounttype, Branch_ID, Balance)
VALUES
(105, 5, 'savings', 1, 25000.00),

```

```
(106, 6, 'current', 1, 35000.00),
(107, 7, 'savings', 1, 15000.00),
(108, 8, 'fixed_deposit', 1, 60000.00),
(109, 9, 'current', 1, 18000.00);
```

```
INSERT INTO customers (Customerid, Customername, DOB, Address, Phone, Email)
VALUES
(5, 'Zainab Fatima', '1999-12-05', 'Faisalabad-Pakistan', '03011234567',
'zainab.fatima@example.com'),
(6, 'Ahsan Javed', '1998-08-17', 'Gujranwala-Pakistan', '03222334455',
'ahsan.javed@example.com'),
(7, 'Sara Khan', '2000-01-30', 'Karachi-Pakistan', '03144556677',
'sara.khan@example.com'),
(8, 'Hamid Raza', '1997-11-15', 'Rawalpindi-Pakistan', '03311223344',
'hamid.raza@example.com'),
(9, 'Laiba Sheikh', '2002-03-10', 'Quetta-Pakistan', '03455667788',
'laiba.sheikh@example.com');
```

```
INSERT INTO employee (Employeeid, Employeeename, Branch_ID, Designation)
VALUES
(201, 'Ali Nawaz', 1, 'Manager'),
(202, 'Hina Tariq', 1, 'Cashier'),
(203, 'Usman Aslam', 1, 'Loan Officer'),
(204, 'Kiran Ahmed', 1, 'Service Rep'),
(205, 'Bilal Iqbal', 1, 'IT Support');
```

```
INSERT INTO loans (Loanid, Customerid, Amount, Applydate)
VALUES
(301, 5, 50000.00, '2000-12-05'),
(302, 6, 100000.00, '1999-08-17'),
(303, 7, 30000.00, '2000-06-30'),
(304, 8, 70000.00, '1998-11-15'),
(305, 9, 20000.00, '2003-03-10');
```

```
INSERT INTO Complain(Complain_ID, Customerid, Description)
VALUES
(401, 5, 'ATM did not dispense cash but deducted amount'),
(402, 6, 'Unable to access account online'),
(403, 7, 'Lost debit card, need replacement'),
(404, 8, 'Loan approval is taking too long'),
(405, 9, 'Staff behavior was unprofessional');
```

```
INSERT INTO Service(Customerid, Service_Type)
VALUES
(5, 'Online Banking Activation'),
(6, 'New Cheque Book'),
(7, 'Mobile Banking Setup'),
(8, 'Credit Card Request'),
(9, 'Update Contact Info');
```

```
INSERT INTO AccountCard (Card_ID, Accountid, Expiry_Date, Status)
VALUES
(501, 105, '2026-12-31', 'Active'),
(502, 106, '2025-10-31', 'Active'),
(503, 107, '2027-05-31', 'Active'),
(504, 108, '2026-08-31', 'Inactive'),
(505, 109, '2025-11-30', 'Active');
```

```

INSERT INTO LoanDistribution (Distribution_Amount, Loanid)
VALUES
(25000.000, 301), -- Partial distribution for Zainab's loan
(50000.000, 302), -- Partial distribution for Ahsan's loan
(15000.000, 303), -- Partial distribution for Sara's loan
(35000.000, 304), -- Partial distribution for Hamid's loan
(10000.000, 305); -- Partial distribution for Laiba's loan

INSERT INTO Repayment (Loanid, Amount)
VALUES
(301, 5000.000), -- Zainab's repayment
(302, 10000.000), -- Ahsan's repayment
(303, 3000.000), -- Sara's repayment
(304, 7000.000), -- Hamid's repayment
(305, 2000.000); -- Laiba's repayment

INSERT INTO transactions (Accountid, Transactiontype, Amount, transaction_date)
VALUES
(105, 'deposit', 10000.00, '2025-05-01'), -- Zainab's deposit
(106, 'withdrawal', 5000.00, '2025-05-02'), -- Ahsan's withdrawal
(107, 'deposit', 15000.00, '2025-05-03'), -- Sara's deposit
(108, 'transfer_out', 3000.00, '2025-05-04'), -- Hamid's transfer
(109, 'transfer_in', 2000.00, '2025-05-05'); -- Laiba's transfer

INSERT INTO transfers ( From_Accountid, To_Accountid, Amount)
VALUES
(105, 106, 5000.00), -- Zainab to Ahsan
(106, 107, 3000.00), -- Ahsan to Sara
(107, 108, 4000.00), -- Sara to Hamid
(108, 109, 2000.00), -- Hamid to Laiba
(109, 105, 1000.00); -- Laiba to Zainab

select * from View_Customer_Accounts;

select * from Transaction_History;

SELECT * FROM View_Customer Loans;

SELECT * FROM View_Loan_Distribution;

SELECT * FROM View_Active_Cards;

SELECT * FROM View_Customer_Services;

select * from View_Customer_Complaints;

SELECT * FROM View_Active_Cards;

EXEC InsertNewCustomer
    @customerid = 4,
    @Customername = 'hassaan',
    @DOB = '2001-11-25',
    @Address = 'Karachi-Pakistan',
    @Phone = '03123456789',
    @Email = 'h5566@example.com',
    @Accountid = 104,
    @Accounttype = 'Savings',
    @Balance = 30000.00;

```

```

EXEC UpdateCustomerInfo
    @Customerid = 5,
    @Phone = '555-987-6543',
    @Address = 'Multan-pakistan',
    @Email = 'zainab.com';

EXEC ApplyLoan
    @Loanid = 306,
    @Customerid = 4,
    @Amount = 10000.00,
    @Applydate = '2025-05-24';

EXEC RecordRepayment
    @Repay_ID = 606,
    @Loanid = 306,
    @Amount = 1500.500;

EXEC RegisterComplaint
    @Complain_ID = 406,
    @Customerid = 4,
    @Description = 'Unauthorized transaction';

EXEC IssueCard
    @Card_ID = 506,
    @Accountid = 104,
    @Expiry_Date = '2028-12-31',
    @Status = 'Active';

EXEC DeactivateCard
    @Card_ID = 506;

EXEC DeleteCustomerAccount
    @Customerid=4;

EXEC ShowData @Accounttype='savings';

EXEC ProcessDeposit
    @Accountid=105,
    @Amount=1000.00,
    @TransactionDate='2025-12-1',
    @Transactionid=30;

EXEC ProcessWithdrawal
    @Accountid=105,
    @Amount=1000.00,
    @TransactionDate='2025-12-1',
    @Transactionid=29;

EXEC ProcessTransfer
    @FromAccount = 105,
    @ToAccount = 106,
    @Amount = 500.00,
    @TransactionDate = '2025-06-15';

EXEC ProcessLoanDistribution
    @Loanid = 302,
    @DistAmount = 30000.00;

```

```
select * from LoanDistribution;
```

```
EXEC ProcessRepayment
@Loanid = 301,
@RepayAmount = 5000.00;
```

### 3) Views:

#### VIEW ALL CUSTOMERS ACCOUNTS:

	Customerid	Custormername	Phone	Email	Accountid	Accounttype	Balance	Branch_Name
1	5	Zainab Fatima	03011234567	zainab.fatima@example.com	105	savings	25000.00	Multan
2	6	Ahsan Javed	03222334455	ahsan.javed@example.com	106	current	35000.00	Multan
3	7	Sara Khan	03144556677	sara.khan@example.com	107	savings	15000.00	Multan
4	8	Hamid Raza	03311223344	hamid.raza@example.com	108	fixed_deposit	60000.00	Multan
5	9	Laiba Sheikh	03455667788	laiba.sheikh@example.com	109	current	18000.00	Multan

#### VIEW ALL TRANSACTION HISTORY:

	Transactionid	Accountid	Custormername	Transactiontype	Amount	transaction_date
1	24	105	Zainab Fatima	deposit	10000.00	2025-05-01
2	25	106	Ahsan Javed	withdrawal	5000.00	2025-05-02
3	26	107	Sara Khan	deposit	15000.00	2025-05-03
4	27	108	Hamid Raza	transfer_out	3000.00	2025-05-04
5	28	109	Laiba Sheikh	transfer_in	2000.00	2025-05-05

#### VIEW ALL CUSTOMERS RECORDS:

	Loanid	Custormername	Amount	Applydate
1	301	Zainab Fatima	50000.00	2000-12-05
2	302	Ahsan Javed	100000.00	1999-08-17
3	303	Sara Khan	30000.00	2000-06-30
4	304	Hamid Raza	70000.00	1998-11-15
5	305	Laiba Sheikh	20000.00	2003-03-10

#### VIEW ALL LOAN DISTRIBUTION:

	Loanid	Custormername	Loan_Amount	Distribution_Amount
1	301	Zainab Fatima	50000.00	25000.000
2	302	Ahsan Javed	100000.00	50000.000
3	303	Sara Khan	30000.00	15000.000
4	304	Hamid Raza	70000.00	35000.000
5	305	Laiba Sheikh	20000.00	10000.000

**VIEW ACTIVE CARDS:**

	Accountid	Customername	Card_ID	Expiry_Date
1	105	Zainab Fatima	501	2026-12-31
2	106	Ahsan Javed	502	2025-10-31
3	107	Sara Khan	503	2027-05-31
4	109	Laiba Sheikh	505	2025-11-30

**View CUSTOMERS SERVICES:**

	Customerid	Customername	Service_Type
1	5	Zainab Fatima	Online Banking Activation
2	6	Ahsan Javed	New Cheque Book
3	7	Sara Khan	Mobile Banking Setup
4	8	Hamid Raza	Credit Card Request
5	9	Laiba Sheikh	Update Contact Info

**VIEW CUSTOMER COMPLAINS:**

	Complain_ID	Customername	Description
1	401	Zainab Fatima	ATM did not dispense cash but deducted amount
2	401	Ahsan Javed	ATM did not dispense cash but deducted amount
3	401	Sara Khan	ATM did not dispense cash but deducted amount
4	401	Hamid Raza	ATM did not dispense cash but deducted amount
5	401	Laiba Sheikh	ATM did not dispense cash but deducted amount
6	402	Zainab Fatima	Unable to access account online
7	402	Ahsan Javed	Unable to access account online
8	402	Sara Khan	Unable to access account online
9	402	Hamid Raza	Unable to access account online
10	402	Laiba Sheikh	Unable to access account online

**VIEW ACTIVE CARD:**

	Accountid	Customername	Card_ID	Expiry_Date
1	105	Zainab Fatima	501	2026-12-31
2	106	Ahsan Javed	502	2025-10-31
3	107	Sara Khan	503	2027-05-31
4	109	Laiba Sheikh	505	2025-11-30



#### 4) Procedures:

##### INSERT NEW CUSTOMERS:

	Customerid	Customername	DOB	Address	Phone	Email
1	4	hassaan	2001-11-25	Karachi-Pakistan	03123456789	h5566@example.com
2	5	Zainab Fatima	1999-12-05	Faisalabad-Pakistan	03011234567	zainab.fatima@example.com
3	6	Ahsan Javed	1998-08-17	Gujranwala-Pakistan	03222334455	ahsan.javed@example.com
4	7	Sara Khan	2000-01-30	Karachi-Pakistan	03144556677	sara.khan@example.com
5	8	Hamid Raza	1997-11-15	Rawalpindi-Pakistan	03311223344	hamid.raza@example.com
6	9	Laiba Sheikh	2002-03-10	Quetta-Pakistan	03455667788	laiba.sheikh@example.com

##### UPDATE CUSTOMER INFO:

	Customerid	Customername	DOB	Address	Phone	Email
1	4	hassaan	2001-11-25	Karachi-Pakistan	03123456789	h5566@example.com
2	5	Zainab Fatima	1999-12-05	Multan-pakistan	555-987-6543	zainab.com
3	6	Ahsan Javed	1998-08-17	Gujranwala-Pakistan	03222334455	ahsan.javed@example.com
4	7	Sara Khan	2000-01-30	Karachi-Pakistan	03144556677	sara.khan@example.com
5	8	Hamid Raza	1997-11-15	Rawalpindi-Pakistan	03311223344	hamid.raza@example.com
6	9	Laiba Sheikh	2002-03-10	Quetta-Pakistan	03455667788	laiba.sheikh@example.com

##### APPLY LOAN:

	Loanid	Customerid	Amount	Applydate
1	301	5	50000.00	2000-12-05
2	302	6	100000.00	1999-08-17
3	303	7	30000.00	2000-06-30
4	304	8	70000.00	1998-11-15
5	305	9	20000.00	2003-03-10
6	306	4	10000.00	2025-05-24

##### REPAYMENT RECORD:

	Repay_ID	Loanid	Amount
1	601	301	5000.000
2	602	302	10000.000
3	603	303	3000.000
4	604	304	7000.000
5	605	305	2000.000
6	606	306	1500.500

##### REGISTER COMPLAIN:

	Complain_ID	Customerid	Description
1	401	5	ATM did not dispense cash but deducted amount
2	402	6	Unable to access account online
3	403	7	Lost debit card, need replacement
4	404	8	Loan approval is taking too long
5	405	9	Staff behavior was unprofessional
6	406	4	Unauthorized transaction

### ISSUE CARD:

	Card_ID	Accountid	Expiry_Date	Status
1	501	105	2026-12-31	Active
2	502	106	2025-10-31	Active
3	503	107	2027-05-31	Active
4	504	108	2026-08-31	Inactive
5	505	109	2025-11-30	Active
6	506	104	2028-12-31	Active

### DEACTIVATE CARD:

	Card_ID	Accountid	Expiry_Date	Status
1	501	105	2026-12-31	Active
2	502	106	2025-10-31	Active
3	503	107	2027-05-31	Active
4	504	108	2026-08-31	Inactive
5	505	109	2025-11-30	Active
6	506	104	2028-12-31	Inactive

### DELETE CUSTOMER ACCOUNT:

Commands completed successfully.

Completion time: 2025-05-23T22:18:31.7575947+05:00

### CREATE SHOW DATA:

	Customerid	Customername	Accountid	Accounttype	Balance
1	4	hassaan	104	Savings	30000.00
2	5	Zainab Fatima	105	savings	25000.00
3	7	Sara Khan	107	savings	15000.00

## 5) Procedures WITH TRANSACTIONS:

### DEPOSIT PROCESS:

	Transactionid	Accountid	Transactiontype	Amount	transaction_date
1	24	105	deposit	10000.00	2025-05-01
2	25	106	withdrawal	5000.00	2025-05-02
3	26	107	deposit	15000.00	2025-05-03
4	27	108	transfer_out	3000.00	2025-05-04
5	28	109	transfer_in	2000.00	2025-05-05
6	29	105	withdrawal	1000.00	2025-12-01
7	30	105	deposit	1000.00	2025-12-01

**WITHDRAW PROCESS:**

	Transactionid	Accountid	Transactiontype	Amount	transaction_date
1	24	105	deposit	10000.00	2025-05-01
2	25	106	withdrawal	5000.00	2025-05-02
3	26	107	deposit	15000.00	2025-05-03
4	27	108	transfer_out	3000.00	2025-05-04
5	28	109	transfer_in	2000.00	2025-05-05
6	29	105	withdrawal	1000.00	2025-12-01
7	30	105	deposit	1000.00	2025-12-01

**TRANSFER PROCESS:**

	Accountid	Customerid	Accounttype	Branch_ID	Balance
1	104	4	Savings	NULL	30000.00
2	105	5	savings	1	24500.00
3	106	6	current	1	35500.00
4	107	7	savings	1	15000.00
5	108	8	fixed_deposit	1	60000.00
6	109	9	current	1	18000.00

**LOAN DISTRIBUTION PROCESS:**

	Distribution_Amount	Loanid
1	25000.000	301
2	50000.000	302
3	15000.000	303
4	35000.000	304
5	10000.000	305
6	30000.000	302

**REPAYMENT PROCESS:**

	Repay_ID	Loanid	Amount
1	601	301	5000.000
2	602	302	10000.000
3	603	303	3000.000
4	604	304	7000.000
5	605	305	2000.000
6	606	301	5000.000