



Lab Report

Only for course Teacher						
		Needs Improvement	Developing	Sufficient	Above Average	Total Mark
Allocate mark & Percentage		25%	50%	75%	100%	10
Clarity	2					
Content Quality	4					
Spelling & Grammar	2					
Organization and Formatting	2					
Total obtained mark						
Comments						

Semester: Fall 2024

Student Name: Erin Jahan Eshita

Student ID: 0242310005341074

Batch: 40th

Section: H

Course Code: SE224

Course Name: Database System Lab

Course Teacher Name: Kazi Rifat Ahmed

Designation: Lecturer

Submission Date: 24/11/2024

Bank Data Management System

Introduction:

The proposed project is a **Bank Data Management System (BDMS)** designed to manage and maintain essential banking operations such as customer management, account transactions, loan processing, employee information, etc. The system will store, retrieve, and update data efficiently using a relational database management system (RDBMS) like MySQL or SQL Server. The system will provide a streamlined and secure method for handling data, ensuring consistency and integrity.

Objective:

The primary objective of this project is to develop a robust, scalable, and secure database system for managing the data related to customers, accounts, transactions, loans, and bank employees. The system will ensure easy access, update, and retrieval of information while maintaining data integrity and security.

Table Information:

- 1. Customers:** This table stores the personal information of customers.
- 2. Accounts:** Stores information about customer bank accounts.
- 3. Transactions:** Stores details about account transactions.
- 4. Loans:** Tracks information on customer loans.
- 5. Employees:** Store details of bank employees.
- 6. Branches:** Stores information about the bank's branches.
- 7. Credit Cards:** Manages credit card data linked to customers.
- 8. Card Transactions:** Tracks transactions made using credit cards.
- 9. Service Fees:** Tracks fees applied to accounts and services.
- 10. Compliance Record:** Tracks compliance issues for regulatory purposes.

Attributes Information and Data Type:

1. Customers

- CustomerID: INT (Primary Key, Auto Increment)
- FirstName: VARCHAR(50)
- LastName: VARCHAR(50)
- DateOfBirth: DATE
- Email: VARCHAR(100)
- Phone: VARCHAR(15)
- Address: VARCHAR(255)
- JoinDate: DATE

2. Accounts

- AccountID: INT (Primary Key, Auto Increment)
- CustomerID: INT (Foreign Key referencing Customers)
- AccountType: VARCHAR(20) (e.g., Savings, Checking)
- Balance: DECIMAL(15, 2)
- DateOpened: DATE
- Status: VARCHAR(20) (e.g., Active, Closed)

3. Transactions

- TransactionID: INT (Primary Key, Auto Increment)
- AccountID: INT (Foreign Key referencing Accounts)
- TransactionDate: DATETIME
- Amount: DECIMAL(15, 2)
- TransactionType: VARCHAR(10) (e.g., Deposit, Withdrawal)
- Description: VARCHAR(255)

4. Loans

- LoanID: INT (Primary Key, Auto Increment)
- CustomerID: INT (Foreign Key referencing Customers)
- LoanAmount: DECIMAL(15, 2)
- InterestRate: DECIMAL(5, 2)
- LoanTerm: INT (in months)
- StartDate: DATE
- Status: VARCHAR(20) (e.g., Active, Paid Off)

5. Employees

- EmployeeID: INT (Primary Key, Auto Increment)
- FirstName: VARCHAR(50)
- LastName: VARCHAR(50)
- Position: VARCHAR(50)
- HireDate: DATE
- Email: VARCHAR(100)
- Phone: VARCHAR(15)
- BranchID: INT (Foreign Key referencing Branches)

6. Branches

- BranchID: INT (Primary Key, Auto Increment)
- BranchName: VARCHAR(100)
- Location: VARCHAR(100)
- Phone: VARCHAR(15)
- ManagerID: INT (Foreign Key referencing Employees)

7. ServiceFees

- FeeID: INT (Primary Key, Auto Increment)
- AccountID: INT (Foreign Key referencing Accounts)
- FeeAmount: DECIMAL(15, 2)
- FeeDate: DATETIME
- FeeDescription: VARCHAR(255)

8. ComplianceRecords

- RecordID: INT (Primary Key, Auto Increment)
- CustomerID: INT (Foreign Key referencing Customers)
- ComplianceType: VARCHAR(50)
- Status: VARCHAR(20) (e.g., Compliant, Non-Compliant)

Data Relationships

- **Customers to Accounts:** One-to-Many (A customer can have multiple accounts).
- **Accounts to Transactions:** One-to-Many (An account can have multiple transactions).
- **Customers to Loans:** One-to-Many (A customer can have multiple loans).
- **Employees to Branches:** One-to-Many (A branch can have multiple employees).
- **Branches to Accounts:** One-to-many (Each branch can be associated with multiple accounts).
- **Accounts to Service Fees:** One-to-Many (An account can incur multiple service fees).
- **Customers to Compliance Records:** One-to-Many (A customer can have multiple compliance records).

Conclusion:

The Bank Data Management System will serve as a reliable, secure, and scalable solution for managing the core data operations of a bank. It will enhance efficiency by ensuring data consistency, quick retrieval, and secure storage of all essential banking information.

1. Create Database:

The screenshot shows the phpMyAdmin interface. In the top navigation bar, the server is set to "Server: 127.0.0.1". The main menu includes Databases, SQL, Status, User accounts, Export, Import, Settings, Replication, Variables,Charsets, Engines, and Plugins. On the left sidebar, databases like New, bdms_project, eshu, information_schema, mysql, performance_schema, phpmyadmin, and test are listed. The central query box contains the SQL command: `CREATE DATABASE BDMS_Project;`. A green success message at the top states: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0013 seconds.)". Below the query box, an error message says: "Error: #1046 No database selected".

2. Create Table:

Customers Table:

This screenshot shows the phpMyAdmin interface for the "bdms_project" database. The top navigation bar includes Structure, SQL, Search, Query, Export, Import, Operations, Privileges, Routines, Events, Triggers, Tracking, Designer, and More. The left sidebar lists tables such as New, customers, and eshu. The central area shows the SQL query: `CREATE TABLE Customers (CustomerID INT AUTO_INCREMENT PRIMARY KEY, FirstName VARCHAR(50), LastName VARCHAR(50), DateOfBirth DATE, Email VARCHAR(100) UNIQUE, Phone VARCHAR(15), Address VARCHAR(255), JoinDate DATE);`. The status bar at the bottom indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)".

Accounts Table:

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. In the left sidebar, the 'Structure' tab is selected. The main area contains the SQL query for creating the 'Accounts' table:

```
1 CREATE TABLE Accounts (
2     AccountID INT AUTO_INCREMENT PRIMARY KEY,
3     CustomerID INT,
4     AccountType VARCHAR(20),
5     Balance DECIMAL(15, 2),
6     DateOpened DATE,
7     Status VARCHAR(20),
8     FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
9 );
```

Below the query, there are several buttons: 'Clear', 'Format', 'Get auto-saved query', 'Bind parameters', 'Bookmark this SQL query', 'Delimiter', and checkboxes for 'Show this query here again', 'Retain query box', 'Rollback when finished', and 'Enable foreign key checks'. A 'Go' button is also present.

After running the query, the results are displayed in a green box:

MySQL returned an empty result set (i.e. zero rows) (Query took 0.0006 seconds)

```
CREATE TABLE Accounts ( AccountID INT AUTO_INCREMENT PRIMARY KEY, CustomerID INT, AccountType VARCHAR(20), Balance DECIMAL(15, 2), DateOpened DATE, Status VARCHAR(20), FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID) );
```

[Edit inline] [Edit] [Create PHP code]

Transactions Table:

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. In the left sidebar, the 'Structure' tab is selected. The main area contains the SQL query for creating the 'Transactions' table:

```
1 CREATE TABLE Transactions (
2     TransactionID INT AUTO_INCREMENT PRIMARY KEY,
3     AccountID INT,
4     TransactionDate DATETIME,
5     Amount DECIMAL(15, 2),
6     TransactionType VARCHAR(10),
7     Description VARCHAR(255),
8     FOREIGN KEY (AccountID) REFERENCES Accounts(AccountID)
9 );
```

Below the query, there are several buttons: 'Clear', 'Format', 'Get auto-saved query', and checkboxes for 'Bind parameters'.

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists databases, tables, and other schema objects. The main area displays the SQL query results for creating the 'Transactions' table:

```
CREATE TABLE Transactions ( TransactionID INT AUTO_INCREMENT PRIMARY KEY, AccountID INT, TransactionDate DATETIME, Amount DECIMAL(15, 2), TransactionType VARCHAR(10), Description VARCHAR(255), FOREIGN KEY (AccountID) REFERENCES Accounts(AccountID) );
```

Loans Table:

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists databases, tables, and other schema objects. The main area displays the SQL query results for creating the 'Loans' table:

```
1 CREATE TABLE Loans (
2     LoanID INT AUTO_INCREMENT PRIMARY KEY,
3     CustomerID INT,
4     LoanAmount DECIMAL(15, 2),
5     InterestRate DECIMAL(5, 2),
6     LoanTerm INT,
7     StartDate DATE,
8     Status VARCHAR(20),
9     FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
10 );
```

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists databases, tables, and other schema objects. The main area displays the SQL query results for creating the 'Loans' table:

```
CREATE TABLE Loans ( LoanID INT AUTO_INCREMENT PRIMARY KEY, CustomerID INT, LoanAmount DECIMAL(15, 2), InterestRate DECIMAL(5, 2), LoanTerm INT, StartDate DATE, Status VARCHAR(20), FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID) );
```

Branches Table:

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. The left sidebar lists databases, tables, and other schema objects. The main area is titled 'Run SQL query/queries on database bdms_project:' and contains the following SQL code:

```
1 CREATE TABLE Branches (
2     BranchID INT AUTO_INCREMENT PRIMARY KEY,
3     BranchName VARCHAR(100),
4     Location VARCHAR(100),
5     Phone VARCHAR(15),
6     EmployeeID INT
7 );
```

Below the code, there are buttons for 'Clear', 'Format', and 'Get auto-saved query', and a checked checkbox for 'Bind parameters'.

After running the query, a message in the status bar indicates: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)' The SQL code shown is identical to the one above.

Employees Table:

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. The left sidebar lists databases, tables, and other schema objects. The main area is titled 'Run SQL query/queries on database bdms_project:' and contains the following SQL code:

```
1 CREATE TABLE Employees (
2     EmployeeID INT AUTO_INCREMENT PRIMARY KEY,
3     FirstName VARCHAR(50),
4     LastName VARCHAR(50),
5     Position VARCHAR(50),
6     HireDate DATE,
7     Email VARCHAR(100),
8     Phone VARCHAR(15),
9     BranchID INT,
10    FOREIGN KEY (BranchID) REFERENCES Branches(BranchID)
11 );
```

Below the code, there are buttons for 'Clear', 'Format', and 'Get auto-saved query', and a checked checkbox for 'Bind parameters'.

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. The left sidebar lists tables: New, bdms_project, accounts, branches, customers, employees, loans, transactions, eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main panel displays the structure of the 'Employees' table, which includes columns for EmployeeID (auto-increment primary key), FirstName, LastName, Position, HireDate, and Email.

```
CREATE TABLE Employees ( EmployeeID INT AUTO_INCREMENT PRIMARY KEY, FirstName VARCHAR(50), LastName VARCHAR(50), Position VARCHAR(50), HireDate DATE, Email VARCHAR(100), Phone VARCHAR(15), BranchID INT, FOREIGN KEY (BranchID) REFERENCES Branches(BranchID) );
```

ServiceFees Table:

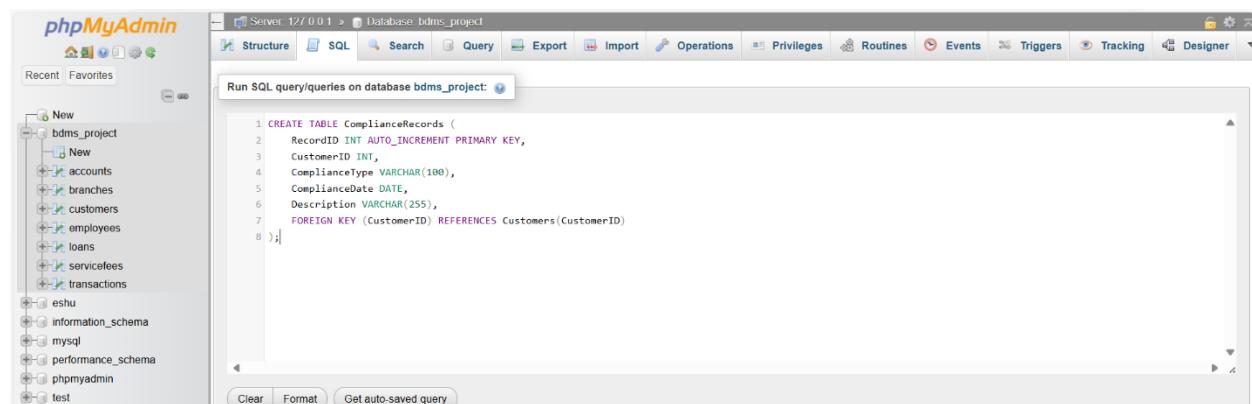
The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. The left sidebar lists tables: New, bdms_project, accounts, branches, customers, employees, loans, transactions, eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main panel shows the SQL query for creating the 'ServiceFees' table, which includes columns for FeeID (auto-increment primary key), AccountID, FeeAmount (decimal 15, 2), FeeDate (datetime), and FeeDescription (varchar 255). A foreign key constraint links AccountID to Accounts(AccountID).

```
1 CREATE TABLE ServiceFees (
2     FeeID INT AUTO_INCREMENT PRIMARY KEY,
3     AccountID INT,
4     FeeAmount DECIMAL(15, 2),
5     FeeDate DATETIME,
6     FeeDescription VARCHAR(255),
7     FOREIGN KEY (AccountID) REFERENCES Accounts(AccountID)
8 );
```

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. The left sidebar lists tables: New, bdms_project, accounts, branches, customers, employees, loans, servicefees, transactions, eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main panel displays the structure of the 'ServiceFees' table, which includes columns for FeeID (auto-increment primary key), AccountID, FeeAmount (decimal 15, 2), FeeDate (datetime), and FeeDescription (varchar 255). A foreign key constraint links AccountID to Accounts(AccountID).

```
CREATE TABLE ServiceFees ( FeeID INT AUTO_INCREMENT PRIMARY KEY, AccountID INT, FeeAmount DECIMAL(15, 2), FeeDate DATETIME, FeeDescription VARCHAR(255), FOREIGN KEY (AccountID) REFERENCES Accounts(AccountID) );
```

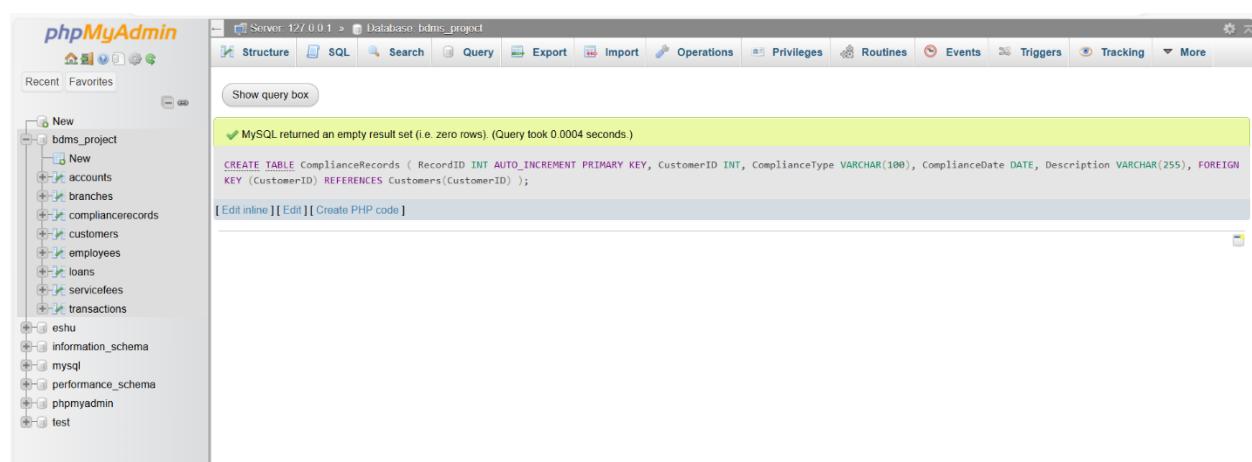
ComplianceRecords Table:



```

CREATE TABLE ComplianceRecords (
    RecordID INT AUTO_INCREMENT PRIMARY KEY,
    CustomerID INT,
    ComplianceType VARCHAR(100),
    ComplianceDate DATE,
    Description VARCHAR(255),
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)
);

```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds)

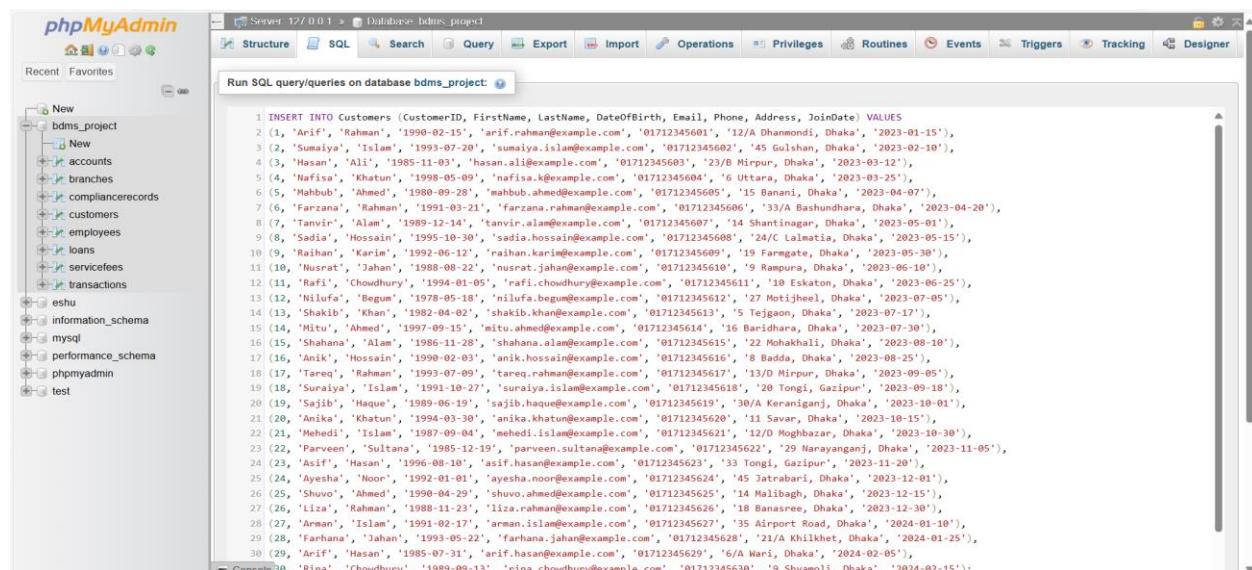
```

CREATE TABLE ComplianceRecords ( RecordID INT AUTO_INCREMENT PRIMARY KEY, CustomerID INT, ComplianceType VARCHAR(100), ComplianceDate DATE, Description VARCHAR(255), FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID) );

```

3. Insert Records into Tables:

Inserting 30 records into Customers table:



```

INSERT INTO Customers (CustomerID, FirstName, LastName, DateOfBirth, Email, Phone, Address, JoinDate) VALUES
(1, 'Arif', 'Rahman', '1990-02-15', 'arif.rahan@example.com', '01712345601', '12/A Dhamondi, Dhaka', '2023-01-15'),
(2, 'Sumaiya', 'Islam', '1993-07-20', 'sumaiya.islam@example.com', '01712345602', '45 Gulshan, Dhaka', '2023-02-10'),
(3, 'Hasan', 'Ali', '1985-11-03', 'hasan.ali@example.com', '01712345603', '23/B Mirpur, Dhaka', '2023-03-12'),
(4, 'Nafisa', 'Khatun', '1998-05-09', 'nafisa.k@example.com', '01712345604', '6 Uttara, Dhaka', '2023-03-25'),
(5, 'Mahbub', 'Ahmed', '1980-09-28', 'mahbub.ahmed@example.com', '01712345605', '15 Banani, Dhaka', '2023-04-07'),
(6, 'Farzana', 'Rahman', '1991-03-21', 'farzana.rahan@example.com', '01712345606', '33/A Bashundhara, Dhaka', '2023-04-20'),
(7, 'Tanvir', 'Alam', '1989-12-14', 'tanvir.alam@example.com', '01712345607', '14 Shantinagar, Dhaka', '2023-05-01'),
(8, 'Sadia', 'Hossain', '1995-10-30', 'sadia.hossain@example.com', '01712345608', '24/C Lalmatia, Dhaka', '2023-05-15'),
(9, 'Raihan', 'Karim', '1992-06-12', 'raihan.karim@example.com', '01712345609', '19 Farmgate, Dhaka', '2023-05-30'),
(10, 'Nusrat', 'Jahan', '1988-08-22', 'nusrat.jahan@example.com', '01712345610', '9 Ramprura, Dhaka', '2023-06-10'),
(11, 'Rafi', 'Choudhury', '1994-01-05', 'rafi.choudhury@example.com', '01712345611', '10 Eskaton, Dhaka', '2023-06-25'),
(12, 'Nilufa', 'Begum', '1978-05-18', 'nilufa.begum@example.com', '01712345612', '27 Motijheel, Dhaka', '2023-07-05'),
(13, 'Shakib', 'Khan', '1982-04-02', 'shakib.khan@example.com', '01712345613', '5 Tejgaon, Dhaka', '2023-07-17'),
(14, 'Mitu', 'Ahmed', '1997-09-15', 'mitu.ahmed@example.com', '01712345614', '16 Baridhara, Dhaka', '2023-07-30'),
(15, 'Shahana', 'Alam', '1986-11-28', 'shahana.alam@example.com', '01712345615', '22 Mohakhali, Dhaka', '2023-08-10'),
(16, 'Anik', 'Hossain', '1998-02-03', 'anik.hossain@example.com', '01712345616', '8 Badda, Dhaka', '2023-08-25'),
(17, 'Tareq', 'Rahman', '1993-07-09', 'tareq.rahan@example.com', '01712345617', '13/D Mirpur, Dhaka', '2023-09-05'),
(18, 'Suraiya', 'Islam', '1991-10-27', 'suraiya.islam@example.com', '01712345618', '20 Tongi, Gazipur', '2023-09-18'),
(19, 'Sajib', 'Haque', '1989-06-19', 'sajib.haque@example.com', '01712345619', '30/A Keraniganj, Dhaka', '2023-10-01'),
(20, 'Anika', 'Khatun', '1994-03-30', 'anika.khatun@example.com', '01712345620', '11 Sevar, Dhaka', '2023-10-15'),
(21, 'Mehedi', 'Islam', '1987-09-04', 'mehedi.isla@example.com', '01712345621', '12/D Moghbazar, Dhaka', '2023-10-30'),
(22, 'Parveen', 'Sultana', '1985-12-19', 'parveen.sultana@example.com', '01712345622', '28 Narayanganj, Dhaka', '2023-11-05'),
(23, 'Asif', 'Hasan', '1996-08-10', 'asif.hasan@example.com', '01712345623', '2/Tongi, Gazipur', '2023-11-20'),
(24, 'Ayesha', 'Noor', '1992-01-01', 'ayesha.noor@example.com', '01712345624', '45 Jatrabari, Dhaka', '2023-12-01'),
(25, 'Shuvo', 'Ahmed', '1990-04-29', 'shuvo.ahmed@example.com', '01712345625', '14 Malibagh, Dhaka', '2023-12-15'),
(26, 'Liza', 'Rahman', '1988-11-23', 'liza.rahan@example.com', '01712345626', '18 Banasree, Dhaka', '2023-12-30'),
(27, 'Arman', 'Islam', '1991-02-17', 'arman.islam@example.com', '01712345627', '35 Airport Road, Dhaka', '2024-01-10'),
(28, 'Farhana', 'Jahan', '1993-05-22', 'farhana.jahan@example.com', '01712345628', '21/A Khilkhet, Dhaka', '2024-01-25'),
(29, 'Arif', 'Hasan', '1985-07-31', 'arif.hasan@example.com', '01712345629', '6/A Wari, Dhaka', '2024-02-05'),
(30, 'Rina', 'Chowdhury', '1989-09-13', 'rina.chowdhury@example.com', '01712345630', '9 Shyamoli, Dhaka', '2024-02-15');

```

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables such as accounts, branches, customers, employees, loans, servicefees, transactions, and eshu. The main area shows a success message: '30 rows inserted. (Query took 0.0008 seconds.)' Below it is the SQL query:

```
INSERT INTO Customers (CustomerID, FirstName, LastName, DateOfBirth, Email, Phone, Address, JoinDate) VALUES (1, 'Arif', 'Rahman', '1990-02-15', 'arif.rahan@example.com', '01712345601', '12/A Dhanmondi, Dhaka', '2023-01-15'), (2, 'Sumaiya', 'Islam', '1993-07-20', 'sumaiya.islam@example.com', '01712345602', '45 Gulshan, Dhaka', '2023-02-10'), (3, 'Hasan', 'Ali', '1985-11-03', 'hasan.ali@example.com', '01712345603', '23/B Mirpur, Dhaka', '2023-03-12'), (4, 'Nafisa', 'Khatun', '1998-05-09', 'nafisa.k@example.com', '01712345604', '6 Uttara, Dhaka', '2023-03-25'), (5, 'Mahbub', 'Ahmed', '1980-09-28', 'mahbub.ahmed@example.com', '01712345605', '35 Banani, Dhaka', '2023-04-07'), (6, 'Farzana', 'Rahman', '1991-03-21', 'farzana.rahaman@example.com', '01712345606', '33/A Bashundhara, Dhaka', '2023-04-20'), (7, 'Tanvir', 'Alam', '1989-12-14', 'tanvir.alam@example.com', '01712345607', '14 Shantinagar, Dhaka', '2023-05-01'), (8, 'Sadia', 'Hossain', '1995-10-30', 'sadia.hossain@example.com', '01712345608', '10/A Motijheel, Dhaka', '2023-06-01'), (9, 'Fazlur', 'Rahman', '1987-08-15', 'fazlur.rahan@example.com', '01712345609', '16/A Dhanmondi, Dhaka', '2023-07-01'), (10, 'Kabir', 'Islam', '1992-04-20', 'kabir.islam@example.com', '01712345610', '20/A Mirpur, Dhaka', '2023-08-01'), (11, 'Shahriar', 'Khatun', '1994-09-10', 'shahriar.k@example.com', '01712345611', '25/A Bashundhara, Dhaka', '2023-09-01'), (12, 'Rashed', 'Ahmed', '1982-01-15', 'rashed.ahmed@example.com', '01712345612', '30/A Motijheel, Dhaka', '2023-10-01'), (13, 'Mehedi', 'Islam', '1996-05-20', 'mehedi.islam@example.com', '01712345613', '18/A Dhanmondi, Dhaka', '2023-11-01'), (14, 'Firdaus', 'Khatun', '1990-07-10', 'firdaus.k@example.com', '01712345614', '22/A Bashundhara, Dhaka', '2023-12-01'), (15, 'Khalid', 'Rahman', '1984-03-15', 'khalid.rahan@example.com', '01712345615', '10/A Motijheel, Dhaka', '2023-01-01'), (16, 'Fazl', 'Khatun', '1992-08-20', 'fazl.k@example.com', '01712345616', '25/A Dhanmondi, Dhaka', '2023-02-01'), (17, 'Shahid', 'Ahmed', '1988-06-10', 'shahid.ahmed@example.com', '01712345617', '30/A Bashundhara, Dhaka', '2023-03-01'), (18, 'Kabiruzzaman', 'Islam', '1994-01-15', 'kabiruzzaman.islam@example.com', '01712345618', '15/A Motijheel, Dhaka', '2023-04-01'), (19, 'Fazlul Haq', 'Khatun', '1991-07-25', 'fazlul.haq@example.com', '01712345619', '20/A Dhanmondi, Dhaka', '2023-05-01'), (20, 'Khaliduzzaman', 'Rahman', '1985-03-10', 'khaliduzzaman.rahan@example.com', '01712345620', '18/A Bashundhara, Dhaka', '2023-06-01'), (21, 'Fazlul Haq', 'Islam', '1993-09-15', 'fazlul.haq.islam@example.com', '01712345621', '22/A Motijheel, Dhaka', '2023-07-01'), (22, 'Khaliduzzaman', 'Khatun', '1987-05-20', 'khaliduzzaman.k@example.com', '01712345622', '10/A Dhanmondi, Dhaka', '2023-08-01'), (23, 'Fazlul Haq', 'Ahmed', '1990-01-10', 'fazlul.haq.ahmed@example.com', '01712345623', '25/A Motijheel, Dhaka', '2023-09-01'), (24, 'Khaliduzzaman', 'Rahman', '1983-07-15', 'khaliduzzaman.rahan@example.com', '01712345624', '15/A Bashundhara, Dhaka', '2023-10-01'), (25, 'Fazlul Haq', 'Islam', '1995-03-20', 'fazlul.haq.islam@example.com', '01712345625', '20/A Motijheel, Dhaka', '2023-11-01'), (26, 'Khaliduzzaman', 'Khatun', '1986-01-10', 'khaliduzzaman.k@example.com', '01712345626', '18/A Dhanmondi, Dhaka', '2023-12-01'), (27, 'Fazlul Haq', 'Ahmed', '1989-05-15', 'fazlul.haq.ahmed@example.com', '01712345627', '22/A Bashundhara, Dhaka', '2023-01-01'), (28, 'Khaliduzzaman', 'Rahman', '1981-09-20', 'khaliduzzaman.rahan@example.com', '01712345628', '12/A Motijheel, Dhaka', '2023-02-01'), (29, 'Fazlul Haq', 'Islam', '1997-01-15', 'fazlul.haq.islam@example.com', '01712345629', '25/A Dhanmondi, Dhaka', '2023-03-01'), (30, 'Khaliduzzaman', 'Khatun', '1984-05-20', 'khaliduzzaman.k@example.com', '01712345630', '10/A Bashundhara, Dhaka', '2023-04-01')
```

Inserting 30 records into the Accounts table:

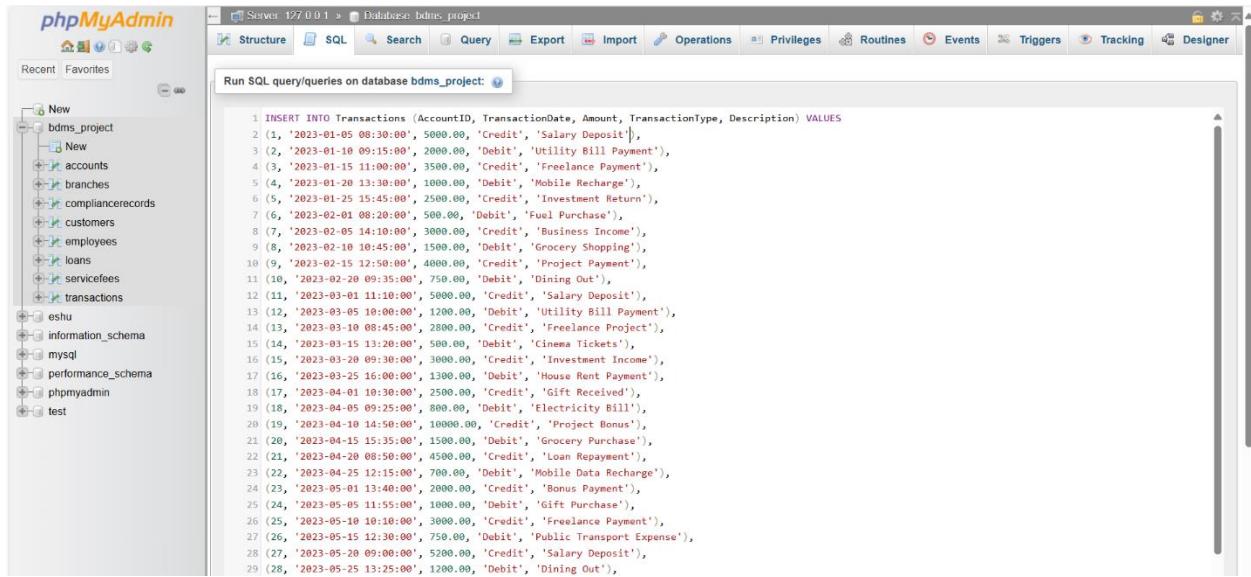
The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables such as accounts, branches, customers, employees, loans, servicefees, transactions, and eshu. The main area shows a success message: 'Run SQL query/queries on database bdms_project: 30 rows inserted. (Query took 0.0000 seconds.)' Below it is the SQL query:

```
1 INSERT INTO Accounts (AccountId, CustomerID, AccountType, Balance, DateOpened, Status) VALUES
2 (1, 1, 'Savings', 15000.50, '2023-01-15', 'Active'),
3 (2, 2, 'Checking', 12000.75, '2023-02-10', 'Active'),
4 (3, 3, 'Savings', 25000.00, '2023-03-12', 'Active'),
5 (4, 4, 'Checking', 18000.25, '2023-03-25', 'Active'),
6 (5, 5, 'Savings', 30000.00, '2023-04-07', 'Closed'),
7 (6, 6, 'Checking', 15000.00, '2023-04-20', 'Active'),
8 (7, 7, 'Savings', 22000.30, '2023-05-01', 'Active'),
9 (8, 8, 'Savings', 14000.50, '2023-05-15', 'Dormant'),
10 (9, 9, 'Checking', 16000.99, '2023-05-30', 'Active'),
11 (10, 10, 'Savings', 28000.00, '2023-06-10', 'Closed'),
12 (11, 11, 'Checking', 13500.50, '2023-06-25', 'Active'),
13 (12, 12, 'Savings', 28000.75, '2023-07-05', 'Dormant'),
14 (13, 13, 'Checking', 12000.60, '2023-07-17', 'Active'),
15 (14, 14, 'Savings', 15000.40, '2023-07-30', 'Closed'),
16 (15, 15, 'Savings', 30000.10, '2023-08-10', 'Active'),
17 (16, 16, 'Checking', 11000.80, '2023-08-25', 'Active'),
18 (17, 17, 'Savings', 17000.25, '2023-09-05', 'Dormant'),
19 (18, 18, 'Checking', 22000.50, '2023-09-18', 'Active'),
20 (19, 19, 'Savings', 25000.00, '2023-10-01', 'Closed'),
21 (20, 20, 'Checking', 19000.35, '2023-10-15', 'Active'),
22 (21, 21, 'Savings', 26000.50, '2023-10-30', 'Dormant'),
23 (22, 22, 'Checking', 14000.20, '2023-11-05', 'Active'),
```

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables such as accounts, branches, customers, employees, loans, servicefees, transactions, and eshu. The main area shows a success message: '30 rows inserted. (Query took 0.0000 seconds.)' Below it is the SQL query:

```
1 INSERT INTO Accounts (AccountId, CustomerID, AccountType, Balance, DateOpened, Status) VALUES (1, 1, 'Savings', 15000.50, '2023-01-15', 'Active'), (2, 2, 'Checking', 12000.75, '2023-02-10', 'Active'), (3, 3, 'Savings', 25000.00, '2023-03-12', 'Active'), (4, 4, 'Checking', 18000.25, '2023-03-25', 'Active'), (5, 5, 'Savings', 30000.00, '2023-04-07', 'Closed'), (6, 6, 'Checking', 15000.00, '2023-04-20', 'Active'), (7, 7, 'Savings', 22000.30, '2023-05-01', 'Active'), (8, 8, 'Savings', 14000.50, '2023-05-15', 'Dormant'), (9, 9, 'Checking', 16000.99, '2023-05-30', 'Active'), (10, 10, 'Savings', 28000.00, '2023-06-10', 'Closed'), (11, 11, 'Checking', 13500.50, '2023-06-25', 'Active'), (12, 12, 'Savings', 28000.75, '2023-07-05', 'Dormant'), (13, 13, 'Checking', 12000.60, '2023-07-17', 'Active'), (14, 14, 'Savings', 15000.40, '2023-07-30', 'Closed'), (15, 15, 'Savings', 30000.10, '2023-08-10', 'Active'), (16, 16, 'Checking', 11000.80, '2023-08-25', 'Active'), (17, 17, 'Savings', [...]
```

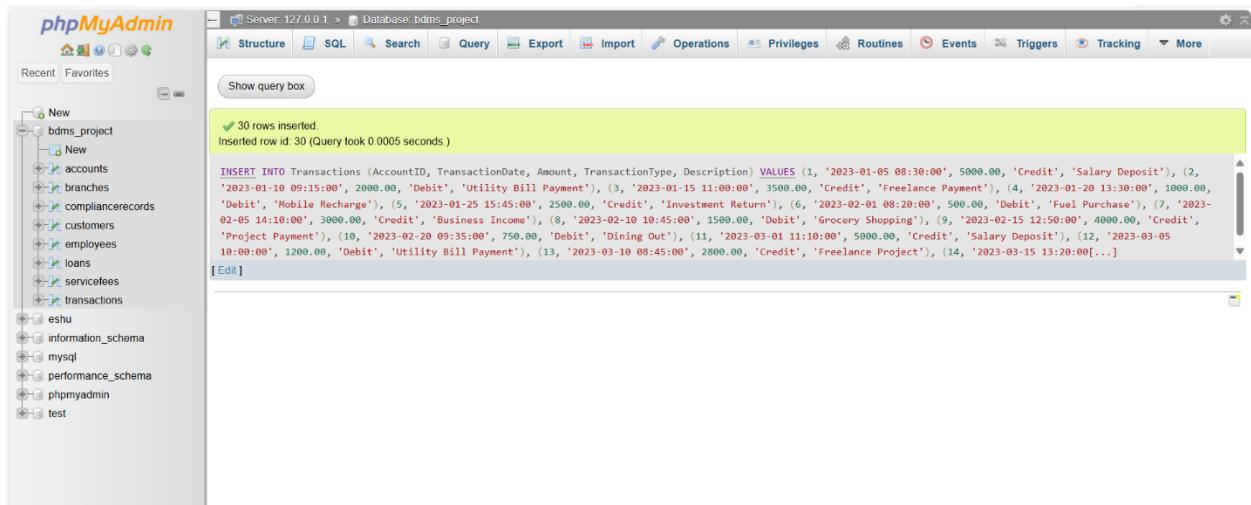
Inserting 30 records into the Transactions table:



```

1 INSERT INTO Transactions (AccountId, TransactionDate, Amount, TransactionType, Description) VALUES
2 (1, '2023-01-05 08:30:00', 5000.00, 'Credit', 'Salary Deposit'),
3 (2, '2023-01-10 09:15:00', 2000.00, 'Debit', 'Utility Bill Payment'),
4 (3, '2023-01-15 11:00:00', 3500.00, 'Credit', 'Freelance Payment'),
5 (4, '2023-01-20 13:30:00', 1000.00, 'Debit', 'Mobile Recharge'),
6 (5, '2023-01-25 15:45:00', 2500.00, 'Credit', 'Investment Return'),
7 (6, '2023-02-01 08:20:00', 500.00, 'Debit', 'Fuel Purchase'),
8 (7, '2023-02-05 14:10:00', 3000.00, 'Credit', 'Business Income'),
9 (8, '2023-02-10 10:45:00', 1500.00, 'Debit', 'Grocery Shopping'),
10 (9, '2023-02-15 12:50:00', 4000.00, 'Credit', 'Project Payment'),
11 (10, '2023-02-20 09:35:00', 750.00, 'Debit', 'Dining Out'),
12 (11, '2023-03-01 11:10:00', 5000.00, 'Credit', 'Salary Deposit'),
13 (12, '2023-03-05 10:00:00', 1200.00, 'Debit', 'Utility Bill Payment'),
14 (13, '2023-03-10 08:45:00', 2800.00, 'Credit', 'Freelance Project'),
15 (14, '2023-03-15 13:20:00', 500.00, 'Debit', 'Cinema Tickets'),
16 (15, '2023-03-20 09:30:00', 3000.00, 'Credit', 'Investment Income'),
17 (16, '2023-03-25 16:00:00', 1300.00, 'Debit', 'House Rent Payment'),
18 (17, '2023-04-01 10:30:00', 2500.00, 'Credit', 'Gift Received'),
19 (18, '2023-04-05 09:25:00', 800.00, 'Debit', 'Electricity Bill'),
20 (19, '2023-04-10 14:50:00', 1000.00, 'Credit', 'Project Bonus'),
21 (20, '2023-04-15 15:35:00', 1500.00, 'Debit', 'Grocery Purchase'),
22 (21, '2023-04-28 08:50:00', 4500.00, 'Credit', 'Loan Repayment'),
23 (22, '2023-04-25 12:15:00', 700.00, 'Debit', 'Mobile Data Recharge'),
24 (23, '2023-05-01 13:40:00', 2000.00, 'Credit', 'Bonus Payment'),
25 (24, '2023-05-05 11:55:00', 1000.00, 'Debit', 'Gift Purchase'),
26 (25, '2023-05-10 10:18:00', 3000.00, 'Credit', 'Freelance Payment'),
27 (26, '2023-05-15 12:30:00', 750.00, 'Debit', 'Public Transport Expense'),
28 (27, '2023-05-20 09:00:00', 5200.00, 'Credit', 'Salary Deposit'),
29 (28, '2023-05-25 13:25:00', 1200.00, 'Debit', 'Dining Out'),

```



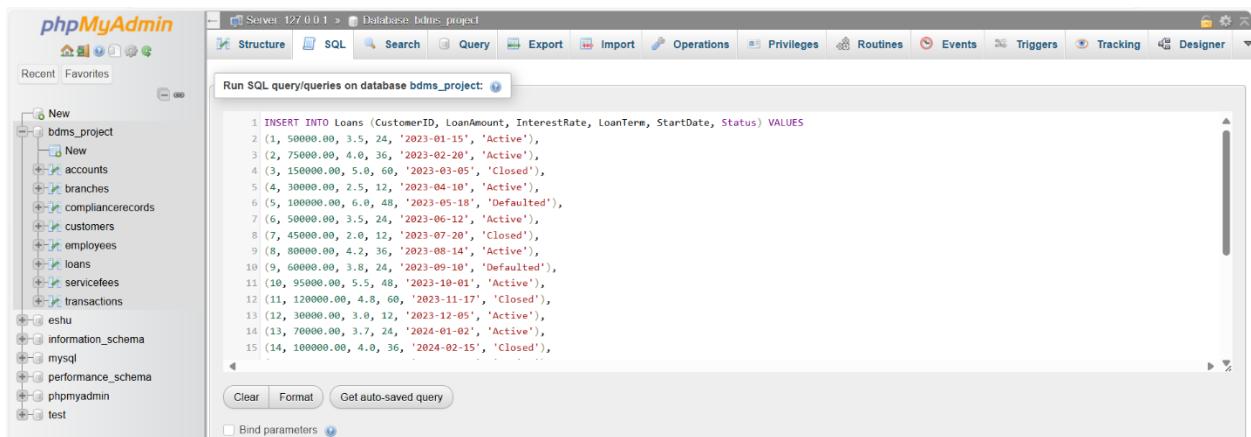
✓ 30 rows inserted.
Inserted row id: 30 (Query took 0.0005 seconds)

```

INSERT INTO Transactions (AccountId, TransactionDate, Amount, TransactionType, Description) VALUES (1, '2023-01-05 08:30:00', 5000.00, 'Credit', 'Salary Deposit'), (2, '2023-01-10 09:15:00', 2000.00, 'Debit', 'Utility Bill Payment'), (3, '2023-01-15 11:00:00', 3500.00, 'Credit', 'Freelance Payment'), (4, '2023-01-20 13:30:00', 1000.00, 'Debit', 'Mobile Recharge'), (5, '2023-01-25 15:45:00', 2500.00, 'Credit', 'Investment Return'), (6, '2023-02-01 08:20:00', 500.00, 'Debit', 'Fuel Purchase'), (7, '2023-02-05 14:10:00', 3000.00, 'Credit', 'Business Income'), (8, '2023-02-10 10:45:00', 1500.00, 'Debit', 'Grocery Shopping'), (9, '2023-02-15 12:50:00', 4000.00, 'Credit', 'Project Payment'), (10, '2023-02-20 09:35:00', 750.00, 'Debit', 'Dining Out'), (11, '2023-03-01 11:10:00', 5000.00, 'Credit', 'Salary Deposit'), (12, '2023-03-05 10:00:00', 1200.00, 'Debit', 'Utility Bill Payment'), (13, '2023-03-10 08:45:00', 2800.00, 'Credit', 'Freelance Project'), (14, '2023-03-15 13:20:00', 500.00, 'Debit', 'Cinema Tickets'), (15, '2023-03-20 09:30:00', 3000.00, 'Credit', 'Investment Income'), (16, '2023-03-25 16:00:00', 1300.00, 'Debit', 'House Rent Payment'), (17, '2023-04-01 10:30:00', 2500.00, 'Credit', 'Gift Received'), (18, '2023-04-05 09:25:00', 800.00, 'Debit', 'Electricity Bill'), (19, '2023-04-10 14:50:00', 1000.00, 'Credit', 'Project Bonus'), (20, '2023-04-15 15:35:00', 1500.00, 'Debit', 'Grocery Purchase'), (21, '2023-04-28 08:50:00', 4500.00, 'Credit', 'Loan Repayment'), (22, '2023-04-25 12:15:00', 700.00, 'Debit', 'Mobile Data Recharge'), (23, '2023-05-01 13:40:00', 2000.00, 'Credit', 'Bonus Payment'), (24, '2023-05-05 11:55:00', 1000.00, 'Debit', 'Gift Purchase'), (25, '2023-05-10 10:18:00', 3000.00, 'Credit', 'Freelance Payment'), (26, '2023-05-15 12:30:00', 750.00, 'Debit', 'Public Transport Expense'), (27, '2023-05-20 09:00:00', 5200.00, 'Credit', 'Salary Deposit'), (28, '2023-05-25 13:25:00', 1200.00, 'Debit', 'Dining Out')

```

Inserting 25 records into the Loans table:



```

1 INSERT INTO Loans (CustomerID, LoanAmount, InterestRate, LoanTerm, StartDate, Status) VALUES
2 (1, 50000.00, 3.5, 24, '2023-01-15', 'Active'),
3 (2, 75000.00, 4.0, 36, '2023-02-20', 'Active'),
4 (3, 150000.00, 5.0, 60, '2023-03-05', 'Closed'),
5 (4, 30000.00, 2.5, 12, '2023-04-10', 'Active'),
6 (5, 100000.00, 6.0, 48, '2023-05-18', 'Defaulted'),
7 (6, 50000.00, 3.5, 24, '2023-06-12', 'Active'),
8 (7, 45000.00, 2.0, 12, '2023-07-20', 'Closed'),
9 (8, 80000.00, 4.2, 36, '2023-08-14', 'Active'),
10 (9, 60000.00, 3.8, 24, '2023-09-10', 'Defaulted'),
11 (10, 95000.00, 5.5, 48, '2023-10-01', 'Active'),
12 (11, 120000.00, 4.8, 60, '2023-11-17', 'Closed'),
13 (12, 30000.00, 3.0, 12, '2023-12-05', 'Active'),
14 (13, 70000.00, 3.7, 24, '2024-01-02', 'Active'),
15 (14, 100000.00, 4.0, 36, '2024-02-15', 'Closed'),

```

phpMyAdmin

Server 127.0.0.1 > Database bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Show query box

25 rows inserted.
Inserted row id: 25 (Query took 0.0005 seconds.)

```
INSERT INTO Loans (CustomerID, LoanAmount, InterestRate, LoanTerm, StartDate, Status) VALUES (1, 50000.00, 3.5, 24, '2023-01-15', 'Active'), (2, 75000.00, 4.0, 36, '2023-02-20', 'Active'), (3, 150000.00, 5.0, 60, '2023-03-05', 'Closed'), (4, 30000.00, 2.5, 12, '2023-04-10', 'Active'), (5, 100000.00, 6.0, 48, '2023-05-18', 'Defaulted'), (6, 50000.00, 3.5, 24, '2023-06-12', 'Active'), (7, 45000.00, 2.0, 12, '2023-07-20', 'Closed'), (8, 80000.00, 4.2, 36, '2023-08-14', 'Active'), (9, 60000.00, 3.8, 24, '2023-09-10', 'Defaulted'), (10, 95000.00, 5.5, 48, '2023-10-01', 'Active'), (11, 120000.00, 4.8, 60, '2023-11-17', 'Closed'), (12, 30000.00, 3.0, 12, '2023-12-05', 'Active'), (13, 70000.00, 3.7, 24, '2024-01-02', 'Active'), (14, 100000.00, 4.0, 36, '2024-02-15', 'Closed'), (15, 200000.00, 5.5, 60, '2024-03-10', 'Active'), (16, 50000.00, 3.3, 24, '2024-04-25', 'Defaulted'), (17, 85000.00, 4.6, 36, '2024-05-15', 'Active'), (18, 40000.00, 2.8, 12, '2024-06-08', 'Active'), (...)
```

[Edit]

Inserting 30 records into the Branches table:

phpMyAdmin

Server 127.0.0.1 > Database bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Run SQL query/queries on database bdms_project:

```
1 INSERT INTO Branches (BranchName, Location, Phone, EmployeeID) VALUES
2 ('Dhaka Central', 'Dhaka', '01712345601', 1),
3 ('Chittagong Hub', 'Chittagong', '01812345602', 2),
4 ('Sylhet Center', 'Sylhet', '01912345603', 3),
5 ('Khulna Branch', 'Khulna', '01712345604', 4),
6 ('Rajshahi Regional', 'Rajshahi', '01812345605', 5),
7 ('Barisal Point', 'Barisal', '01912345606', 6),
8 ('Comilla Office', 'Comilla', '01712345607', 7),
9 ('Rangpur Outpost', 'Rangpur', '01812345608', 8),
10 ('Gazipur Unit', 'Gazipur', '01912345609', 9),
11 ('Narayanganj Suite', 'Narayanganj', '01712345610', 10),
12 ('Mymensingh Office', 'Mymensingh', '01812345611', 11),
13 ('Jessore Spot', 'Jessore', '01912345612', 12),
14 ('Dinajpur Outlet', 'Dinajpur', '01712345613', 13),
15 ('Faridpur Desk', 'Faridpur', '01812345614', 14),
16 ('Pabna Counter', 'Pabna', '01912345615', 15),
17 ('Tangail Corner', 'Tangail', '01712345616', 16),
18 ('Bogra Section', 'Bogra', '01812345617', 17),
19 ('Sirajganj Hub', 'Sirajganj', '01912345618', 18),
20 ('Nawabganj Center', 'Nawabganj', '01712345619', 19),
21 ('Kushtia Branch', 'Kushtia', '01812345620', 20),
```

Clear Format Get auto-saved query

Bind parameters

Bookmark this SQL query:

phpMyAdmin

Server 127.0.0.1 > Database bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Show query box

30 rows inserted.
Inserted row id: 30 (Query took 0.0008 seconds.)

```
INSERT INTO Branches (BranchName, Location, Phone, EmployeeID) VALUES ('Dhaka Central', 'Dhaka', '01712345601', 1), ('Chittagong Hub', 'Chittagong', '01812345602', 2), ('Sylhet Center', 'Sylhet', '01912345603', 3), ('Khulna Branch', 'Khulna', '01712345604', 4), ('Rajshahi Regional', 'Rajshahi', '01812345605', 5), ('Barisal Point', 'Barisal', '01912345606', 6), ('Comilla Office', 'Comilla', '01712345607', 7), ('Rangpur Outpost', 'Rangpur', '01812345608', 8), ('Gazipur Unit', 'Gazipur', '01912345609', 9), ('Narayanganj Suite', 'Narayanganj', '01712345610', 10), ('Mymensingh Office', 'Mymensingh', '01812345611', 11), ('Jessore Spot', 'Jessore', '01912345612', 12), ('Dinajpur Outlet', 'Dinajpur', '01712345613', 13), ('Faridpur Desk', 'Faridpur', '01812345614', 14), ('Pabna Counter', 'Pabna', '01912345615', 15), ('Tangail Corner', 'Tangail', '01712345616', 16), ('Bogra Section', 'Bogra', '01812345617', 17), ('Sirajganj Hub', 'Sirajganj', '01912345618', 18), ('Nawabganj Center', 'Nawabganj', '01712345619', 19), ('Kushtia Branch', 'Kushtia', '01812345620', 20),
```

[Edit]

Inserting 30 records into the Employees table:

phpMyAdmin

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```

1 INSERT INTO Employees (FirstName, LastName, Position, HireDate, Email, Phone, BranchID) VALUES
2 ('Rahim', 'Ahmed', 'Branch Manager', '2020-01-15', 'rahim.ahmed@company.com', '01711234501', 1),
3 ('Karim', 'Choudhury', 'Assistant Manager', '2021-02-10', 'karim.choudhury@company.com', '01811234502', 2),
4 ('Sabina', 'Begum', 'Cashier', '2019-05-20', 'sabina.begum@company.com', '01911234503', 3),
5 ('Asif', 'Hossain', 'Loan Officer', '2018-11-30', 'asif.hossain@company.com', '01711234504', 4),
6 ('Lima', 'Akter', 'Accountant', '2021-03-14', 'lima.akter@company.com', '01811234505', 5),
7 ('Nadia', 'Khan', 'Customer Service', '2019-08-01', 'nadia.khan@company.com', '01911234506', 6),
8 ('Farid', 'Miah', 'Security', '2020-12-20', 'farid.miah@company.com', '01711234507', 7),
9 ('Rashid', 'Uddin', 'Branch Manager', '2017-07-22', 'rashid.uddin@company.com', '01811234508', 8),
10 ('Kamal', 'Islam', 'Assistant Manager', '2020-09-10', 'kamal.islam@company.com', '01911234509', 9),
11 ('Hasina', 'Jahan', 'Teller', '2018-10-05', 'hasina.jahan@company.com', '01711234510', 10),
12 ('Anis', 'Rahman', 'Cashier', '2019-04-12', 'anis.rahman@company.com', '01811234511', 11),
13 ('Sultana', 'Parvin', 'Loan Officer', '2021-06-18', 'sultana.parvin@company.com', '01911234512', 12),
14 ('Rubel', 'Alam', 'Customer Service', '2022-01-11', 'rubel.alam@company.com', '01711234513', 13),
15 ('Mitu', 'Hasan', 'Branch Manager', '2018-02-16', 'mitu.hasan@company.com', '01811234514', 14),
16 ('Arif', 'Haque', 'Assistant Manager', '2020-10-07', 'arif.haque@company.com', '01911234515', 15),
17 ('Rehana', 'Sultana', 'Teller', '2021-12-02', 'rehana.sultana@company.com', '01711234516', 16),
18 ('Shahid', 'Ali', 'Accountant', '2017-03-03', 'shahid.ali@company.com', '01811234517', 17),
19 ('Nafisa', 'Janmat', 'Cashier', '2022-05-09', 'nafisa.jamat@company.com', '01911234518', 18),
20 ('Sohail', 'Kadir', 'Loan Officer', '2021-07-24', 'sohail.kadir@company.com', '01711234519', 19),
21 ('Rina', 'Begum', 'Customer Service', '2020-08-18', 'rina.begum@company.com', '01811234520', 20),
22 ('Manik', 'Khan', 'Branch Manager', '2019-06-26', 'manik.khan@company.com', '01911234521', 21),

```

Clear Format Get auto-saved query

phpMyAdmin

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Show query box

30 rows inserted
Inserted row id: 30 (Query took 0.0008 seconds)

```

INSERT INTO Employees (FirstName, LastName, Position, HireDate, Email, Phone, BranchID) VALUES ('Rahim', 'Ahmed', 'Branch Manager', '2020-01-15', 'rahim.ahmed@company.com', '01711234501', 1), ('Karim', 'Choudhury', 'Assistant Manager', '2021-02-10', 'karim.choudhury@company.com', '01811234502', 2), ('Sabina', 'Begum', 'Cashier', '2019-05-20', 'sabina.begum@company.com', '01911234503', 3), ('Asif', 'Hossain', 'Loan Officer', '2018-11-30', 'asif.hossain@company.com', '01711234504', 4), ('Lima', 'Akter', 'Accountant', '2021-03-14', 'lima.akter@company.com', '01811234505', 5), ('Nadia', 'Khan', 'Customer Service', '2019-08-01', 'nadia.khan@company.com', '01911234506', 6), ('Farid', 'Miah', 'Security', '2020-12-20', 'farid.miah@company.com', '01711234507', 7), ('Rashid', 'Uddin', 'Branch Manager', '2017-07-22', 'rashid.uddin@company.com', '01811234508', 8), ('Kamal', 'Islam', 'Assistant Manager', '2020-09-10', 'kamal.islam@company.com', '01911234509', 9), ('Hasina', 'Jahan', 'Teller', '2018-10-05', 'hasina.jahan@company.com', '01711234510', 10), ('Anis', 'Rahman', 'Cashier', '2019-04-12', 'anis.rahman@company.com', '01811234511', 11), ('Sultana', 'Parvin', 'Loan Officer', '2021-06-18', 'sultana.parvin@company.com', '01911234512', 12), ('Rubel', 'Alam', 'Customer Service', '2022-01-11', 'rubel.alam@company.com', '01711234513', 13), ('Mitu', 'Hasan', 'Branch Manager', '2018-02-16', 'mitu.hasan@company.com', '01811234514', 14), ('Arif', 'Haque', 'Assistant Manager', '2020-10-07', 'arif.haque@company.com', '01911234515', 15), ('Rehana', 'Sultana', 'Teller', '2021-12-02', 'rehana.sultana@company.com', '01711234516', 16), ('Shahid', 'Ali', 'Accountant', '2017-03-03', 'shahid.ali@company.com', '01811234517', 17), ('Nafisa', 'Janmat', 'Cashier', '2022-05-09', 'nafisa.jamat@company.com', '01911234518', 18), ('Sohail', 'Kadir', 'Loan Officer', '2021-07-24', 'sohail.kadir@company.com', '01711234519', 19), ('Rina', 'Begum', 'Customer Service', '2020-08-18', 'rina.begum@company.com', '01811234520', 20), ('Manik', 'Khan', 'Branch Manager', '2019-06-26', 'manik.khan@company.com', '01911234521', 21),

```

[Edit]

Inserting 30 records into the ServiceFees table:

phpMyAdmin

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```

1 INSERT INTO ServiceFees (AccountId, FeeAmount, FeeDate, FeeDescription) VALUES
2 (1, 50.00, '2023-01-01 10:00:00', 'Monthly maintenance fee'),
3 (2, 100.00, '2023-01-05 14:30:00', 'ATM withdrawal fee'),
4 (3, 75.00, '2023-01-10 09:15:00', 'Overdraft protection fee'),
5 (4, 30.00, '2023-01-12 13:45:00', 'Account statement fee'),
6 (5, 120.00, '2023-01-20 08:05:00', 'Credit card processing fee'),
7 (6, 60.00, '2023-01-25 11:30:00', 'International transfer fee'),
8 (7, 45.00, '2023-01-28 15:10:00', 'Monthly maintenance fee'),
9 (8, 50.00, '2023-02-01 10:50:00', 'Account inactivity fee'),
10 (9, 55.00, '2023-02-05 12:20:00', 'ATM withdrawal fee'),
11 (10, 80.00, '2023-02-10 09:40:00', 'Credit card late payment fee'),
12 (11, 70.00, '2023-02-12 16:30:00', 'Overdraft protection fee'),
13 (12, 40.00, '2023-02-15 13:15:00', 'Account statement fee'),
14 (13, 125.00, '2023-02-18 11:05:00', 'Loan processing fee'),
15 (14, 65.00, '2023-02-22 14:00:00', 'Cheque processing fee'),
16 (15, 115.00, '2023-02-25 09:50:00', 'International transfer fee'),
17 (16, 35.00, '2023-03-01 10:15:00', 'Monthly maintenance fee'),
18 (17, 85.00, '2023-03-03 12:45:00', 'ATM withdrawal fee'),
19 (18, 95.00, '2023-03-10 08:20:00', 'Overdraft protection fee'),
20 (19, 130.00, '2023-03-12 14:35:00', 'Loan processing fee'),
21 (20, 50.00, '2023-03-15 13:55:00', 'Account statement fee'),
22 (21, 110.00, '2023-03-18 09:05:00', 'Credit card processing fee'),
23 (22, 55.00, '2023-03-22 15:25:00', 'ATM withdrawal fee'),
24 (23, 45.00, '2023-03-25 10:10:00', 'Monthly maintenance fee'),
25 (24, 150.00, '2023-04-01 11:45:00', 'Account inactivity fee'),

```

Clear Format Get auto-saved query

Bind parameters

Console

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Show query box

30 rows inserted.
Inserted row id: 30 (Query took 0.0015 seconds)

```
INSERT INTO ServiceFees (AccountID, FeeAmount, FeeDate, FeeDescription) VALUES (1, 50.00, '2023-01-01 10:00:00', 'Monthly maintenance fee'), (2, 100.00, '2023-01-05 14:30:00', 'ATM withdrawal fee'), (3, 75.00, '2023-01-10 09:15:00', 'Overdraft protection fee'), (4, 30.00, '2023-01-12 13:45:00', 'Account statement fee'), (5, 120.00, '2023-01-20 08:05:00', 'Credit card processing fee'), (6, 60.00, '2023-01-25 11:30:00', 'International transfer fee'), (7, 45.00, '2023-01-28 15:10:00', 'Monthly maintenance fee'), (8, 90.00, '2023-02-01 10:50:00', 'Account inactivity fee'), (9, 55.00, '2023-02-05 12:20:00', 'ATM withdrawal fee'), (10, 80.00, '2023-02-10 09:40:00', 'Credit card late payment fee'), (11, 70.00, '2023-02-12 16:30:00', 'Overdraft protection fee'), (12, 40.00, '2023-02-15 13:15:00', 'Account statement fee'), (13, 125.00, '2023-02-18 11:05:00', 'Loan processing fee'), (14, 65.00, '2023-02-22 14:00:00', 'Cheque processing fee'), (15, 115.00, '2023-02-25 09:50:00', 'I[...]
```

[Edit]

Inserting 22 records into the ComplianceRecords table:

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Designer

Show SQL query/queries on database bdms_project:

```
1 INSERT INTO ComplianceRecords (CustomerID, ComplianceType, Description) VALUES
2 (1, 'KYC Verification', 'Completed'),
3 (2, 'AML Compliance', 'Pending'),
4 (3, 'Risk Assessment', 'Completed'),
5 (4, 'Fraud Check', 'Completed'),
6 (5, 'Transaction Monitoring', 'Pending'),
7 (6, 'Sanctions Screening', 'Completed'),
8 (7, 'Credit Check', 'Completed'),
9 (8, 'KYC Verification', 'Pending'),
10 (9, 'AML Compliance', 'Completed'),
11 (10, 'Risk Assessment', 'Completed'),
12 (11, 'Fraud Check', 'Pending'),
13 (12, 'Transaction Monitoring', 'Completed'),
14 (13, 'Sanctions Screening', 'Pending'),
15 (14, 'Credit Check', 'Completed'),
16 (15, 'KYC Verification', 'Completed'),
17 (16, 'AML Compliance', 'Completed'),
18 (17, 'Risk Assessment', 'Pending'),
19 (18, 'Fraud Check', 'Completed'),
20 (19, 'Transaction Monitoring', 'Completed'),
21 (20, 'Sanctions Screening', 'Pending'),
22 (21, 'Credit Check', 'Completed'),
23 (22, 'KYC Verification', 'Pending');
```

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking More

Show query box

22 rows inserted.
Inserted row id: 22 (Query took 0.0010 seconds)

```
INSERT INTO ComplianceRecords (CustomerID, ComplianceType, Description) VALUES (1, 'KYC Verification', 'Completed'), (2, 'AML Compliance', 'Pending'), (3, 'Risk Assessment', 'Completed'), (4, 'Fraud Check', 'Completed'), (5, 'Transaction Monitoring', 'Pending'), (6, 'Sanctions Screening', 'Completed'), (7, 'Credit Check', 'Completed'), (8, 'KYC Verification', 'Pending'), (9, 'AML Compliance', 'Completed'), (10, 'Risk Assessment', 'Completed'), (11, 'Fraud Check', 'Pending'), (12, 'Transaction Monitoring', 'Completed'), (13, 'Sanctions Screening', 'Pending'), (14, 'Credit Check', 'Completed'), (15, 'KYC Verification', 'Completed'), (16, 'AML Compliance', 'Completed'), (17, 'Risk Assessment', 'Pending'), (18, 'Fraud Check', 'Completed'), (19, 'Transaction Monitoring', 'Completed'), (20, 'Sanctions Screening', 'Pending'), (21, 'Credit Check', 'Completed'), (22, 'KYC Verification', 'Pending');
```

[Edit inline] [Edit] [Create PHP code]

40 SQL Questions and Queries:

Basic SQL Syntax: SELECT, INSERT, UPDATE, DELETE

1. Select all information about customers.

The screenshot shows two instances of the phpMyAdmin interface. The top instance is in 'Structure' mode, displaying the SQL query: `SELECT * FROM Customers;`. The bottom instance is in 'Table' mode, showing the results of the same query on the 'Customers' table. The results table has columns: CustomerID, FirstName, LastName, DateOfBirth, Email, Phone, Address, and JoinDate. The data includes 14 rows of customer information, such as Anif Rahman, Sumaiya Islam, Hasan Ali, Nafisa Khatun, Mahbub Ahmed, Farzana Rahman, Tanvir Alam, Sadia Hossain, Raihan Karim, Nusrat Jahan, Rafi Chowdhury, Nilufa Begum, Shakib Khan, and Mitu Ahmed.

CustomerID	FirstName	LastName	DateOfBirth	Email	Phone	Address	JoinDate
1	Anif	Rahman	1990-02-15	arf.rahman@example.com	01712345601	12/A Dhanmondi, Dhaka	2023-01-15
2	Sumaiya	Islam	1993-07-20	sumaiya.islam@example.com	01712345602	45 Gulshan, Dhaka	2023-02-10
3	Hasan	Ali	1985-11-03	hasan.ali@example.com	01712345603	23/B Mirpur, Dhaka	2023-03-12
4	Nafisa	Khatun	1998-05-09	nafisa.k@example.com	01712345604	6 Utara, Dhaka	2023-03-25
5	Mahbub	Ahmed	1980-09-28	mahbub.ahmed@example.com	01712345605	15 Banani, Dhaka	2023-04-07
6	Farzana	Rahman	1991-03-21	farzana.rahman@example.com	01712345606	33/A Bashundhara, Dhaka	2023-04-20
7	Tanvir	Alam	1969-12-14	tanvir.alam@example.com	01712345607	14 Shantinagar, Dhaka	2023-05-01
8	Sadia	Hossain	1995-10-30	sadia.hossain@example.com	01712345608	24/C Lalimata, Dhaka	2023-05-15
9	Raihan	Karim	1992-06-12	raihan.karim@example.com	01712345609	19 Farmgate, Dhaka	2023-05-30
10	Nusrat	Jahan	1988-08-22	nusrat.jahan@example.com	01712345610	9 Rampura, Dhaka	2023-06-10
11	Rafi	Chowdhury	1994-01-05	rafi.chowdhury@example.com	01712345611	10 Eskaton, Dhaka	2023-06-25
12	Nilufa	Begum	1978-05-18	nilufa.begum@example.com	01712345612	27 Motijheel, Dhaka	2023-07-05
13	Shakib	Khan	1982-04-02	shakib.khan@example.com	01712345613	5 Tejgaon, Dhaka	2023-07-17
14	Mitu	Ahmed	1997-09-15	mitu.ahmed@example.com	01712345614	16 Rangpura, Dhaka	2023-07-30

2. Add a new customer to the database.

```

1 INSERT INTO Customers (FirstName, LastName, DateOfBirth, Email, Phone, Address, JoinDate)
2 VALUES ('Erin', 'Jahan', '2003-01-01', 'erin@yahoo.com', '1234567890', '123 Dhaka St-6', '2023-01-01');
3

```

1 row inserted
Inserted row id: 31 (Query took 0.0008 seconds.)

```

INSERT INTO Customers (FirstName, LastName, DateOfBirth, Email, Phone, Address, JoinDate) VALUES ('Erin', 'Jahan', '2003-01-01', 'erin@yahoo.com', '1234567890', '123 Dhaka St-6', '2023-01-01');

```

3. Update an existing customer's email by CustomerID.

```

1 UPDATE Customers
2 SET Email = 'arif@gmail.com'
3 WHERE CustomerID = 1;
4

```

1 row affected (Query took 0.0005 seconds.)

```

UPDATE Customers SET Email = 'arif@gmail.com' WHERE CustomerID = 1;

```

4. Delete an employee record based on EmployeeID.

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. In the left sidebar, there are several tables listed under the 'New' category: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'Query' tab is selected in the top navigation bar. In the main query editor, the following SQL code is entered:

```
1 DELETE FROM employees
2 WHERE EmployeeID = 30;
3
```

After executing the query, a message in the status bar indicates: "1 row deleted. (Query took 0.0005 seconds.)".

This screenshot shows the same phpMyAdmin interface after the DELETE query has been executed. The status bar message "1 row deleted. (Query took 0.0005 seconds.)" is visible at the bottom. The query editor shows the executed command:

```
DELETE FROM employees WHERE EmployeeID = 30;
```

Filtering and Sorting: WHERE, ORDER BY, AND, OR, NOT, LIKE, IN, BETWEEN

5. Select all accounts with a balance greater than 5000.

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The left sidebar lists tables: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'Query' tab is selected. In the query editor, the following SQL code is entered:

```
1 SELECT * FROM Accounts
2 WHERE Balance > 5000;
3
```

phpMyAdmin

Server: 127.0.0.1 » Database: bdms_project » Table: Accounts

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Showing rows 0 - 24 (30 total, Query took 0.0010 seconds.)

SELECT * FROM Accounts WHERE Balance > 5000;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

1 > >> Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	AccountID	CustomerID	AccountType	Balance	DateOpened	Status
<input type="checkbox"/>	1	1	Savings	15000.50	2023-01-15	Active
<input type="checkbox"/>	2	2	Checking	12000.75	2023-02-10	Active
<input type="checkbox"/>	3	3	Savings	25000.00	2023-03-12	Active
<input type="checkbox"/>	4	4	Checking	18000.25	2023-03-25	Active
<input type="checkbox"/>	5	5	Savings	30000.00	2023-04-07	Closed
<input type="checkbox"/>	6	6	Checking	15000.00	2023-04-20	Active
<input type="checkbox"/>	7	7	Savings	22000.30	2023-05-01	Active
<input type="checkbox"/>	8	8	Savings	14000.50	2023-05-15	Dormant
<input type="checkbox"/>	9	9	Checking	16000.90	2023-05-30	Active
<input type="checkbox"/>	10	10	Savings	20000.00	2023-06-10	Closed
<input type="checkbox"/>	11	11	Checking	13500.50	2023-06-25	Active
<input type="checkbox"/>	12	12	Savings	28000.75	2023-07-05	Dormant
<input type="checkbox"/>	13	13	Checking	12000.60	2023-07-17	Active
<input checked="" type="checkbox"/>	14	14	Savings	15000.40	2023-07-30	Closed

Console it Copy Delete

32°C 3:34 PM

6. Find customers who joined after January 1, 2022.

Server: 127.0.0.1 » Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Trig

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Customers
2 WHERE JoinDate > '2022-01-01';
3 |
```

Showing rows 0 - 24 (31 total, Query took 0.0004 seconds)

```
SELECT * FROM Customers WHERE JoinDate > '2022-01-01';
```

CustomerID	FirstName	LastName	DateOfBirth	Email	Phone	Address	JoinDate
1	Arif	Rahman	1990-02-15	arif@gmail.com	01712345601	12/A Dhanmondi, Dhaka	2023-01-15
2	Sumaiya	Islam	1993-07-20	sumaiya.islam@example.com	01712345602	45 Gulshan, Dhaka	2023-02-10
3	Hasan	Ali	1985-11-03	hasan.ali@example.com	01712345603	23/B Mirpur, Dhaka	2023-03-12
4	Nafisa	Khatun	1998-05-09	nafisa.k@example.com	01712345604	6 Uttara, Dhaka	2023-03-25
5	Mahbub	Ahmed	1980-09-28	mahbub.ahmed@example.com	01712345605	15 Banani, Dhaka	2023-04-07
6	Farzana	Rahman	1991-03-21	farzana.rahman@example.com	01712345606	33/A Bashundhara, Dhaka	2023-04-20
7	Tanvir	Alam	1988-12-14	tanvir.alam@example.com	01712345607	14 Shantinagar, Dhaka	2023-05-01
8	Sadia	Hossain	1995-10-30	sadia.hossain@example.com	01712345608	24/C Lalmoni, Dhaka	2023-05-15
9	Raihan	Karim	1992-06-12	raihan.karim@example.com	01712345609	19 Farmgate, Dhaka	2023-05-30
10	Nusrat	Jahan	1988-08-22	nusrat.jahan@example.com	01712345610	9 Rampura, Dhaka	2023-06-10
11	Rafi	Chowdhury	1994-01-05	rafi.chowdhury@example.com	01712345611	10 Eskaton, Dhaka	2023-06-25
12	Nilufa	Begum	1978-05-18	nilufa.begum@example.com	01712345612	27 Motijheel, Dhaka	2023-07-05
13	Shakib	Khan	1982-04-02	shakib.khan@example.com	01712345613	5 Togaon, Dhaka	2023-07-17

7. List customers whose last name starts with 'S'.

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Customers
2 WHERE LastName LIKE 'S%';
3
```

Showing rows 0 - 0 (1 total, Query took 0.0005 seconds)

```
SELECT * FROM Customers WHERE LastName LIKE 'S%';
```

CustomerID	FirstName	LastName	DateOfBirth	Email	Phone	Address	JoinDate
22	Parveen	Sultana	1985-12-19	parveen.sultana@example.com	01712345622	29 Narayanganj, Dhaka	2023-11-05

8. Find accounts with a status of either 'Active' or 'Closed'.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Accounts
2 WHERE Status IN ('Active', 'Closed');
3
```

Clear Format Get auto-saved query

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Accounts

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Showing rows 0 - 24 (25 total, Query took 0.0008 seconds.)

```
SELECT * FROM Accounts WHERE Status IN ('Active', 'Closed');
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	AccountID	CustomerID	AccountType	Balance	DateOpened	Status
<input type="checkbox"/>	1	1	Savings	15000.50	2023-01-15	Active
<input type="checkbox"/>	2	2	Checking	12000.75	2023-02-10	Active
<input type="checkbox"/>	3	3	Savings	25000.00	2023-03-12	Active
<input type="checkbox"/>	4	4	Checking	18000.25	2023-03-25	Active
<input type="checkbox"/>	5	5	Savings	30000.00	2023-04-07	Closed
<input type="checkbox"/>	6	6	Checking	15000.00	2023-04-20	Active
<input type="checkbox"/>	7	7	Savings	22000.30	2023-05-01	Active
<input type="checkbox"/>	9	9	Checking	16000.90	2023-05-30	Active
<input type="checkbox"/>	10	10	Savings	20000.00	2023-06-10	Closed
<input type="checkbox"/>	11	11	Checking	13500.50	2023-06-25	Active
<input type="checkbox"/>	13	13	Checking	12000.60	2023-07-17	Active
<input type="checkbox"/>	14	14	Savings	15000.40	2023-07-30	Closed
<input type="checkbox"/>	15	15	Savings	30000.10	2023-08-10	Active
<input checked="" type="checkbox"/>	16	16	Checking	11000.80	2023-08-25	Active

9. Get all transactions between \$100 and \$500.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Transactions
2 WHERE Amount BETWEEN 100 AND 500;
3
```

Clear Format Get auto-saved query

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Transactions

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

```
SELECT * FROM Transactions WHERE Amount BETWEEN 100 AND 500;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	TransactionID	AccountID	TransactionDate	Amount	TransactionType	Description
<input type="checkbox"/>	Edit	6	6 2023-02-01 08:20:00	500.00	Debit	Fuel Purchase
<input type="checkbox"/>	Edit	14	14 2023-03-15 13:20:00	500.00	Debit	Cinema Tickets

Check all With selected

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print

Bookmark this SQL query

Label: Let every user access this bookmark

10. Retrieve all transactions that are not 'Withdrawal'.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Privileges Routines Events Triggers Tracking Design

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Transactions
2 WHERE TransactionType != 'Withdrawal';
3 |
```

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Transactions

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Showing rows 0 - 24 (30 total, Query took 0.0004 seconds.)

```
SELECT * FROM Transactions WHERE TransactionType != 'Withdrawal';
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	TransactionID	AccountID	TransactionDate	Amount	TransactionType	Description
<input type="checkbox"/>	Edit	1	1 2023-01-05 08:30:00	5000.00	Credit	Salary Deposit
<input type="checkbox"/>	Edit	2	2 2023-01-10 09:15:00	2000.00	Debit	Utility Bill Payment
<input type="checkbox"/>	Edit	3	3 2023-01-15 11:00:00	3500.00	Credit	Freelance Payment
<input type="checkbox"/>	Edit	4	4 2023-01-20 13:30:00	1000.00	Debit	Mobile Recharge
<input type="checkbox"/>	Edit	5	5 2023-01-25 15:45:00	2500.00	Credit	Investment Return
<input type="checkbox"/>	Edit	6	6 2023-02-01 08:20:00	500.00	Debit	Fuel Purchase
<input type="checkbox"/>	Edit	7	7 2023-02-05 14:10:00	3000.00	Credit	Business Income
<input type="checkbox"/>	Edit	8	8 2023-02-10 10:45:00	1500.00	Debit	Grocery Shopping
<input type="checkbox"/>	Edit	9	9 2023-02-15 12:50:00	4000.00	Credit	Project Payment
<input type="checkbox"/>	Edit	10	10 2023-02-20 09:35:00	750.00	Debit	Dining Out
<input type="checkbox"/>	Edit	11	11 2023-03-01 11:10:00	5000.00	Credit	Salary Deposit
<input type="checkbox"/>	Edit	12	12 2023-03-05 10:00:00	1200.00	Debit	Utility Bill Payment

11. List all customers, ordered by JoinDate in descending order.

The screenshot shows two instances of the phpMyAdmin interface. The top instance is in 'SQL' mode, displaying the following query:

```
1 SELECT * FROM Customers
2 ORDER BY JoinDate DESC;
```

The bottom instance is in 'Browse' mode, showing the results of the executed query. The results table has the following columns: CustomerID, FirstName, LastName, DateOfBirth, Email, Phone, Address, and JoinDate. The data is sorted by JoinDate in descending order. The results are as follows:

CustomerID	FirstName	LastName	DateOfBirth	Email	Phone	Address	JoinDate
30	Rina	Chowdhury	1989-09-13	rina.chowdhury@example.com	01712345630	9 Shyamoli, Dhaka	2024-02-15
29	Arif	Hasan	1985-07-31	arif.hasan@example.com	01712345629	6/A Wari, Dhaka	2024-02-05
28	Farhana	Jahan	1993-05-22	farhana.jahan@example.com	01712345628	21/A Khilkhet, Dhaka	2024-01-25
27	Arman	Islam	1991-02-17	arman.islam@example.com	01712345627	35 Airport Road, Dhaka	2024-01-10
26	Liza	Rahman	1988-11-23	liza.rahaman@example.com	01712345626	18 Banasree, Dhaka	2023-12-30
25	Shuvo	Ahmed	1990-04-29	shuvo.ahmed@example.com	01712345625	14 Malibagh, Dhaka	2023-12-15
24	Ayesha	Noor	1992-01-01	ayesha.noor@example.com	01712345624	45 Jatrabari, Dhaka	2023-12-01
23	Asif	Hasan	1996-08-10	asif.hasan@example.com	01712345623	33 Tongi, Gazipur	2023-11-20
22	Parveen	Sultana	1985-12-19	parveen.sultana@example.com	01712345622	29 Narayanganj, Dhaka	2023-11-05
21	Mehedi	Islam	1987-09-04	mehedi.islam@example.com	01712345621	12/D Moghbazar, Dhaka	2023-10-30
20	Anika	Khatun	1994-03-30	anika.khatun@example.com	01712345620	11 Savar, Dhaka	2023-10-15
19	Sajib	Haque	1989-06-19	sajib.haque@example.com	01712345619	30/A Keraniganj, Dhaka	2023-10-01
18	Suraiya	Islam	1991-10-27	suraiya.islam@example.com	01712345618	20 Tongi, Gazipur	2023-09-18
17	Tareq	Rahman	1993-07-09	tareq.rahaman@example.com	01712345617	13/D Mirpur, Dhaka	2023-09-05

Aggregate Functions: COUNT, SUM, AVG, MIN, MAX

12. Count the total number of accounts.

The screenshot shows the phpMyAdmin interface in 'SQL' mode. The query entered is:

```
1 SELECT COUNT(*) AS TotalAccounts FROM Accounts;
```

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The left sidebar lists tables such as 'New', 'accounts', 'branches', 'compliancerecords', 'customers', 'employees', 'loans', 'servicefees', 'transactions', 'eshu', 'information_schema', 'mysql', 'performance_schema', 'phpmyadmin', and 'test'. The main panel displays the results of a SQL query: 'SELECT COUNT(*) AS TotalAccounts FROM Accounts;'. The result is 'TotalAccounts: 30'. Below the results, there are options to 'Print', 'Copy to clipboard', 'Export', 'Display chart', and 'Create view'.

13. Find the total balance of all accounts.

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The left sidebar lists the same tables as before. The main panel shows the SQL query 'SELECT SUM(Balance) AS TotalBalance FROM Accounts;' entered into the 'Query' tab. The results will be displayed below the query entry area.

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The left sidebar lists the tables. The main panel displays the results of the SQL query: 'SELECT SUM(Balance) AS TotalBalance FROM Accounts;'. The result is 'TotalBalance: 593511.10'. Below the results, there are options to 'Print', 'Copy to clipboard', 'Export', 'Display chart', and 'Create view'.

14. Calculate the average loan amount.

phpMyAdmin

Structure SQL Search Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT AVG(LoanAmount) AS AvgLoanAmount FROM Loans;
```

Clear Format Get auto-saved query

phpMyAdmin

Structure SQL Insert Export Import Operations Privileges Tracking Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total). Query took 0.0026 seconds.

```
SELECT AVG(LoanAmount) AS AvgLoanAmount FROM Loans;
```

Profiling | Edit inline | Explain SQL | Create PHP code | Refresh

Show all Number of rows: 25 Filter rows: Search this table

Extra options

AvgLoanAmount
79600.00000

Show all Number of rows: 25 Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

15. Find the maximum loan amount issued.

phpMyAdmin

Structure SQL Search Export Import Operations Privileges Routines Events Triggers Tracking Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT MAX(LoanAmount) AS MaxLoanAmount FROM Loans;
```

Bind parameters

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Loans

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total). Query took 0.0013 seconds.

```
SELECT MAX(LoanAmount) AS MaxLoanAmount FROM Loans;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table

Extra options

MaxLoanAmount

200000.00

Show all Number of rows: 25 Filter rows Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

16. Get the minimum balance across all accounts.

phpMyAdmin

Run SQL query/queries on database bdms_project:

```
1 SELECT MIN(Balance) AS MinBalance FROM Accounts;
2
```

Clear Format Get auto-saved query

Bind parameters

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Accounts

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total). Query took 0.0012 seconds.

```
SELECT MIN(Balance) AS MinBalance FROM Accounts;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table

Extra options

MinBalance

11000.80

Show all Number of rows: 25 Filter rows Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Joins: INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN, SELF JOIN

17. Retrieve customer names along with their account balance.

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. In the left sidebar, there are several tables listed under the 'New' category: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'customers' table is selected. In the main panel, the 'SQL' tab is active, displaying the following SQL query:

```
1 SELECT Customers.FirstName, Customers.LastName, Accounts.Balance
2 FROM Customers
3 INNER JOIN Accounts ON Customers.CustomerID = Accounts.CustomerID;
```

Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query'. A checkbox for 'Bind parameters' is also present. After executing the query, the results are displayed in a table:

FirstName	LastName	Balance
Arif	Rahman	15000.50
Sumaya	Islam	12000.75
Hasan	Ali	25000.00
Nafisa	Khatun	18000.25
Mahbub	Ahmed	30000.00
Farzana	Rahman	15000.00
Tanvir	Alam	22000.30
Sadia	Hossain	14000.50
Raihan	Karim	16000.90
Nusrat	Jahan	20000.00
Rafi	Chowdhury	13500.50
Nilufa	Begum	28000.75
Shakib	Khan	12000.60
Mitu	Ahmed	15000.40

18. List all customers and any associated loan details (if available).

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. In the left sidebar, there are several tables listed under the 'New' category: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'customers' table is selected. In the main panel, the 'SQL' tab is active, displaying the following SQL query:

```
1 SELECT Customers.CustomerID, Customers.FirstName, Customers.LastName, Loans.LoanAmount
2 FROM Customers
3 LEFT JOIN Loans ON Customers.CustomerID = Loans.CustomerID;
```

Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query'. A checkbox for 'Bind parameters' is also present.

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists various tables: New, bdms_project (with sub-tables New, accounts, branches, compliancerecords, customers, employees, loans, servicefees, transactions), eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main area displays a query result for the following SQL statement:

```
SELECT Customers.CustomerID, Customers.FirstName, Customers.LastName, Loans.LoanAmount FROM Customers LEFT JOIN Loans ON Customers.CustomerID = Loans.CustomerID;
```

The result table shows 24 rows of data:

CustomerID	FirstName	LastName	LoanAmount
1	Anil	Rahman	50000.00
2	Sumaiya	Islam	75000.00
3	Hasan	Ali	150000.00
4	Nafisa	Khatun	30000.00
5	Mahbub	Ahmed	100000.00
6	Fazlana	Rahman	50000.00
7	Tanvir	Alam	45000.00
8	Sadia	Hossain	80000.00
9	Rulan	Karin	60000.00
10	Nusrat	Jahan	95000.00
11	Rafi	Chowdhury	120000.00
12	Nilufa	Begum	30000.00
13	Shakib	Khan	70000.00
14	Mitu	Ahmed	100000.00

19. Get all accounts and their associated transactions.

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables: New, bdms_project (with sub-tables New, accounts, branches, compliancerecords, customers, employees, loans, servicefees, transactions), eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main area shows the SQL query editor with the following query:

```
1 SELECT Accounts.AccountID, Accounts.Balance, Transactions.Amount, Transactions.TransactionDate
2 FROM Accounts
3 INNER JOIN Transactions ON Accounts.AccountID = Transactions.AccountID;
4
```

The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables: New, bdms_project (with sub-tables New, accounts, branches, compliancerecords, customers, employees, loans, servicefees, transactions), eshu, information_schema, mysql, performance_schema, phpmyadmin, and test. The main area displays a query result for the following SQL statement:

```
SELECT Accounts.AccountID, Accounts.Balance, Transactions.Amount, Transactions.TransactionDate FROM Accounts INNER JOIN Transactions ON Accounts.AccountID = Transactions.AccountID;
```

The result table shows 30 rows of data:

AccountID	Balance	Amount	TransactionDate
1	15000.50	5000.00	2023-01-05 08:30:00
2	12000.75	2000.00	2023-01-10 09:15:00
3	25000.00	3500.00	2023-01-15 11:00:00
4	18000.25	1000.00	2023-01-20 13:30:00
5	30000.00	2500.00	2023-01-25 15:45:00
6	15000.00	500.00	2023-02-01 08:20:00
7	22000.30	3000.00	2023-02-05 14:10:00
8	14000.50	1500.00	2023-02-10 10:45:00
9	18000.90	4000.00	2023-02-15 12:50:00
10	20000.00	750.00	2023-02-20 09:35:00
11	13500.50	5000.00	2023-03-01 11:10:00
12	28000.75	1200.00	2023-03-05 10:00:00
13	12000.60	2800.00	2023-03-10 08:45:00
14	15000.40	500.00	2023-03-15 13:20:00

20. Find employees and the branches they manage, if they are managers.

```
1 SELECT Employees.EmployeeID, Employees.FirstName, Employees.LastName, Branches.BranchName
2 FROM Employees
3 LEFT JOIN Branches ON Employees.EmployeeID = Branches.EmployeeID;
4
```

EmployeeID	FirstName	LastName	BranchName
1	Rahim	Ahmed	Dhaka Central
2	Karim	Chowdhury	Chittagong Hub
3	Sabina	Begum	Sylhet Center
4	Asif	Hossain	Khulna Branch
5	Lima	Akter	Rajshahi Regional
6	Nadia	Khan	Barisal Point
7	Fard	Miah	Comilla Office
8	Rashid	Uddin	Rangpur Outpost
9	Kamal	Islam	Gezipur Unit
10	Hasina	Jahan	Narayanganj Suite
11	Anis	Rahman	Mymensingh Office
12	Sultana	Parvin	Jessore Spot
13	Rubel	Alam	Dinapur Outlet
14	Mitu	Hasan	Fardpur Desk
15	Art	Haque	Pabna Counter

21. Show all branches and any associated employee, even if they have no employees assigned.

```
1 SELECT Branches.BranchID, Branches.BranchName, Employees.FirstName, Employees.LastName
2 FROM Branches
3 LEFT JOIN Employees ON Branches.BranchID = Employees.BranchID;
4
```

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

```
SELECT Branches.BranchID, Branches.BranchName, Employees.FirstName, Employees.LastName FROM Branches LEFT JOIN Employees ON Branches.BranchID = Employees.BranchID;
```

BranchID	BranchName	FirstName	LastName
1	Dhaka Central	Rahim	Ahmed
2	Chittagong Hub	Karim	Chowdhury
3	Sylhet Center	Sabina	Begum
4	Khulna Branch	Asif	Hossain
5	Rajshahi Regional	Lima	Akter
6	Bansal Point	Nadia	Khan
7	Comilla Office	Fard	Miah
8	Rangpur Outpost	Rashid	Uddin
9	Gazipur Unit	Kamal	Islam
10	Narayanganj Suite	Hasina	Jahan
11	Mymensingh Office	Anis	Rahman
12	Jessore Spot	Sultana	Parvin
13	Dinajpur Outlet	Rubel	Alam
14	Fardpur Desk	Mitu	Hasan

Constraints and Keys:

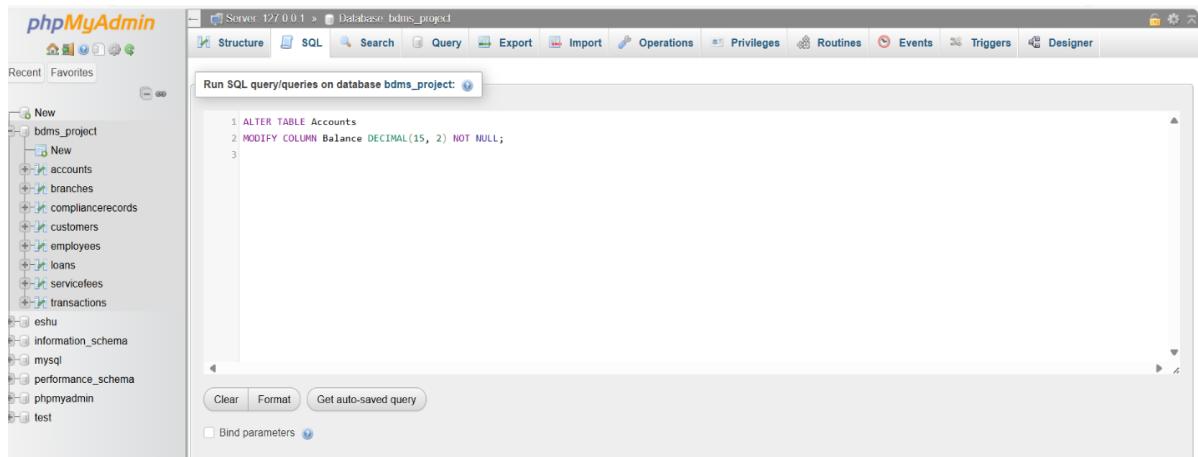
22. Create an index on the AccountType column in Accounts for faster searching.

```
CREATE INDEX idx_account_type ON Accounts(AccountType);
```

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0447 seconds)

```
CREATE INDEX idx_account_type ON Accounts(AccountType);
```

23. Add a NOT NULL constraint to the Balance column in Accounts.



```
1: ALTER TABLE Accounts
2: MODIFY COLUMN Balance DECIMAL(15, 2) NOT NULL;
```

Run SQL query/queries on database bdms_project:

Clear Format Get auto-saved query

Bind parameters



Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0393 seconds.)

```
ALTER TABLE Accounts MODIFY COLUMN Balance DECIMAL(15, 2) NOT NULL;
```

[Edit inline] [Edit] [Create PHP code]

Advanced Functions: CASE, Stored Procedures, NULL Handling

24. List customers with 'Minor' if under 18, else 'Adult'.



```
1: SELECT FirstName, LastName,
2:        CASE
3:            WHEN TIMESTAMPDIFF(YEAR, DateOfBirth, CURDATE()) < 18 THEN 'Minor'
4:            ELSE 'Adult'
5:        END AS AgeGroup
6: FROM Customers;
7:
```

Run SQL query/queries on database bdms_project:

Clear Format Get auto-saved query

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Customers

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Show query box

Showing rows 0 - 24 (31 total, Query took 0.0025 seconds.)

```
SELECT FirstName, LastName, CASE WHEN TIMESTAMPOFF(YEAR, DateOfBirth, CURDATE()) < 18 THEN 'Minor' ELSE 'Adult' END AS AgeGroup FROM Customers;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	FirstName	LastName	AgeGroup
<input type="checkbox"/>	Edit Copy Delete	Arif Rahman	Adult
<input type="checkbox"/>	Edit Copy Delete	Sumaiya Islam	Adult
<input type="checkbox"/>	Edit Copy Delete	Hasan Ali	Adult
<input type="checkbox"/>	Edit Copy Delete	Nafisa Khatun	Adult
<input type="checkbox"/>	Edit Copy Delete	Mahbub Ahmed	Adult
<input type="checkbox"/>	Edit Copy Delete	Farzana Rahman	Adult
<input type="checkbox"/>	Edit Copy Delete	Tanvir Alam	Adult
<input type="checkbox"/>	Edit Copy Delete	Sadia Hossain	Adult
<input type="checkbox"/>	Edit Copy Delete	Raihan Karim	Adult
<input type="checkbox"/>	Edit Copy Delete	Nusrat Jahan	Adult
<input type="checkbox"/>	Edit Copy Delete	Rafi Chowdhury	Adult
<input type="checkbox"/>	Edit Copy Delete	Nilufa Begum	Adult
<input type="checkbox"/>	Edit Copy Delete	Shakib Khan	Adult

25. Calculate balance after a transaction, defaulting to 0 if NULL.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Privileges Routines Events Triggers Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT AccountID, COALESCE(Balance, 0) AS EffectiveBalance
2 FROM Accounts;
3
```

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Accounts

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Show query box

Showing rows 0 - 24 (30 total, Query took 0.0004 seconds.)

```
SELECT AccountID, COALESCE(Balance, 0) AS EffectiveBalance FROM Accounts;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	AccountID	EffectiveBalance
<input type="checkbox"/>	Edit Copy Delete	1 15000.50
<input type="checkbox"/>	Edit Copy Delete	2 12000.75
<input type="checkbox"/>	Edit Copy Delete	3 25000.00
<input type="checkbox"/>	Edit Copy Delete	4 18000.25
<input type="checkbox"/>	Edit Copy Delete	5 30000.00
<input type="checkbox"/>	Edit Copy Delete	6 15000.00
<input type="checkbox"/>	Edit Copy Delete	7 22000.30
<input type="checkbox"/>	Edit Copy Delete	8 14000.50
<input type="checkbox"/>	Edit Copy Delete	9 16000.90
<input type="checkbox"/>	Edit Copy Delete	10 20000.00
<input type="checkbox"/>	Edit Copy Delete	11 13500.50
<input type="checkbox"/>	Edit Copy Delete	12 28000.75
<input type="checkbox"/>	Edit Copy Delete	13 12000.60
<input type="checkbox"/>	Console Edit Copy Delete	14 15000.40

Views and Security: Views, Handling SQL Injection

26. Display customer accounts with encrypted phone numbers for privacy.

The screenshot shows two instances of the phpMyAdmin interface. The top window is titled "Server 127.0.0.1 > Database: bdms_project". It displays a SQL query in the "SQL" tab:1. SELECT CustomerID, CONCAT(SUBSTR(Phone, 1, 2), '*****', SUBSTR(Phone, -2)) AS EncryptedPhone
2. FROM Customers;
3.Below the query, there are buttons for "Clear", "Format", "Get auto-saved query", and "Bind parameters". At the bottom, there are checkboxes for "Delimiter", "Show this query here again", "Retain query box", "Rollback when finished", and "Enable foreign key checks", with the "Go" button highlighted.

The bottom window is also titled "Server 127.0.0.1 > Database: bdms_project > Table: Customers". It shows the results of the executed query. The table has columns "CustomerID" and "EncryptedPhone". The data is as follows:

CustomerID	EncryptedPhone
1	01*****01
2	01*****02
3	01*****03
4	01*****04
5	01*****05
6	01*****06
7	01*****07
8	01*****08
9	01*****09
10	01*****10
11	01*****11
12	01*****12
13	01*****13

27. Prevent SQL injection by using parameterized queries to select accounts by status.

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. In the left sidebar, there are several tables: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'SQL' tab is selected. A query window contains the following code:

```

1 PREPARE stat FROM 'SELECT * FROM Accounts WHERE Status = ?';
2 SET @status = 'Active';
3 EXECUTE stat USING @status;
4

```

Below the query window are buttons for 'Clear', 'Format', and 'Get auto-saved query'.

The screenshot shows the results of the query execution. The results pane displays two rows of information:

- MySQL returned an empty result set (i.e. zero rows) (Query took 0.0010 seconds)
- MySQL returned an empty result set (i.e. zero rows) (Query took 0.0009 seconds)

Below these messages is a note: "Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available." The results table shows the following data:

AccountID	CustomerID	AccountType	Balance	DateOpened	Status
1	1	Savings	15000.50	2023-01-15	Active
2	2	Checking	12000.75	2023-02-10	Active
3	3	Savings	25000.00	2023-03-12	Active
4	4	Checking	18000.25	2023-03-25	Active
6	6	Checking	15000.00	2023-04-20	Active
7	7	Savings	22000.30	2023-05-01	Active

Additional Practice Queries

28. Retrieve all loans with an interest rate over 5%.

The screenshot shows the phpMyAdmin interface for the database 'bdms_project'. In the left sidebar, there are several tables: accounts, branches, compliancerecords, customers, employees, loans, servicefees, and transactions. The 'SQL' tab is selected. A query window contains the following code:

```

1 SELECT * FROM Loans
2 WHERE InterestRate > 5;
3

```

Below the query window are buttons for 'Clear', 'Format', and 'Get auto-saved query'.

Showing rows 0 - 3 (4 total, Query took 0.0015 seconds.)

	LoanID	CustomerID	LoanAmount	InterestRate	LoanTerm	StartDate	Status
<input type="checkbox"/>	5	5	100000.00	6.00	48	2023-05-18	Defaulted
<input type="checkbox"/>	10	10	95000.00	5.50	48	2023-10-01	Active
<input type="checkbox"/>	15	15	200000.00	5.50	60	2024-03-10	Active
<input type="checkbox"/>	19	19	110000.00	5.20	48	2024-07-22	Closed

29. Find the average loan term of all loans.

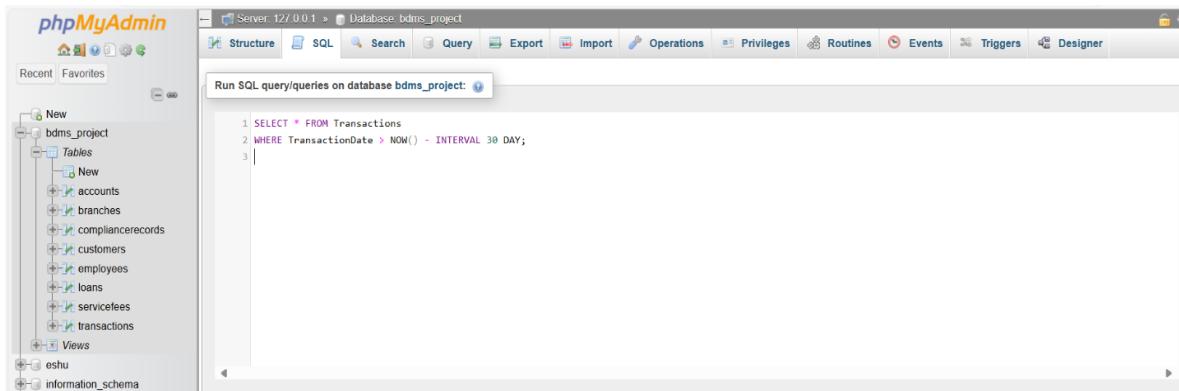
Run SQL query/queries on database bdms_project:

```
1. SELECT AVG(LoanTerm) AS AvgLoanTerm FROM Loans;
```

Showing rows 0 - 0 (1 total, Query took 0.0009 seconds.)

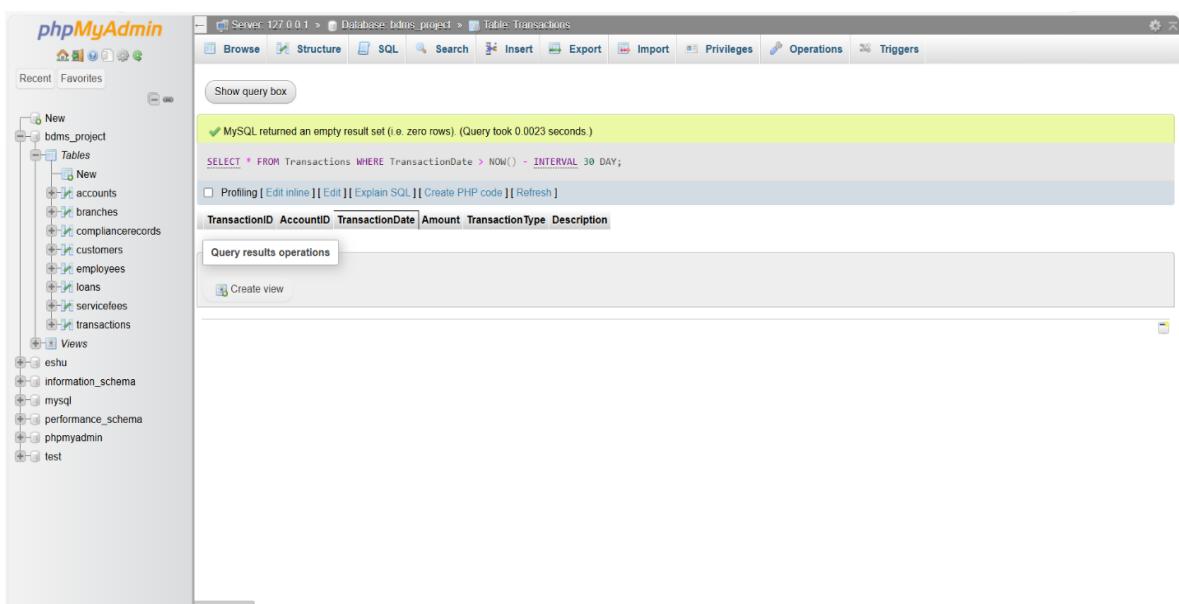
AvgLoanTerm
33.1200

30. List all transactions from the last 30 days.



The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. In the left sidebar, under the 'Tables' section, there is a table named 'Transactions'. The main area contains an SQL query editor with the following code:

```
1 SELECT * FROM Transactions
2 WHERE TransactionDate > NOW() - INTERVAL 30 DAY;
3
```



The screenshot shows the phpMyAdmin interface for the same database. The 'Transactions' table is selected in the sidebar. The main area displays the results of the executed query:

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0023 seconds)

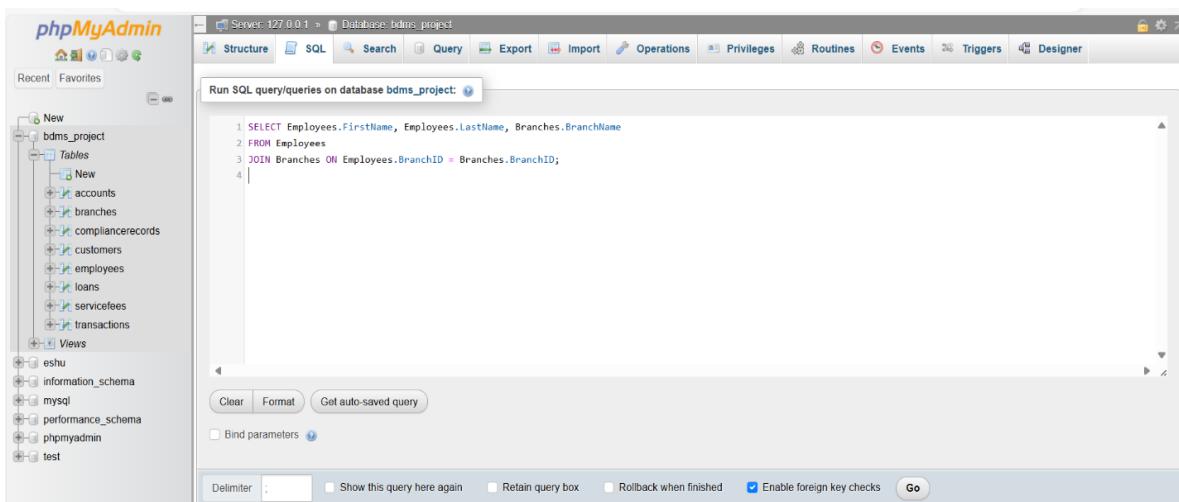
```
SELECT * FROM Transactions WHERE TransactionDate > NOW() - INTERVAL 30 DAY;
```

TransactionID AccountID TransactionDate Amount TransactionType Description

Query results operations

Create view

31. Display all employee names with their branch name.



The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The 'Employees' and 'Branches' tables are selected in the sidebar. The main area contains an SQL query editor with the following code:

```
1 SELECT Employees.FirstName, Employees.LastName, Branches.BranchName
2 FROM Employees
3 JOIN Branches ON Employees.BranchID = Branches.BranchID;
4
```

The screenshot shows the phpMyAdmin interface for the 'bdms_project' database. The left sidebar shows the database structure with tables like 'accounts', 'branches', 'compliancerecords', 'customers', 'employees', 'loans', 'servicefees', and 'transactions'. The 'employees' table is selected, displaying 29 rows of data:

FirstName	LastName	BranchName
Rahim	Ahmed	Dhaka Central
Karin	Chowdhury	Chittagong Hub
Sabina	Begum	Sylhet Center
Asif	Hossain	Khulna Branch
Lima	Akter	Rajshahi Regional
Nadia	Khan	Bansal Point
Farid	Miah	Comilla Office
Rashid	Uddin	Rangpur Outpost
Kamal	Islam	Gazipur Unit
Hasina	Jahan	Narayanganj Suite
Anis	Rahman	Mymensingh Office
Sultana	Parvin	Jessore Spot
Rubel	Alam	Dinajpur Outlet
Mitu	Hasan	Faridpur Desk

32. Find the total fees for a specific account (ID = 3).

The screenshot shows the phpMyAdmin interface with the SQL tab active. A query is entered in the query box:

```
1 SELECT SUM(FeeAmount) AS TotalFees FROM ServiceFees
2 WHERE AccountID = 3;
```

The 'Delimiter' field is set to a colon (:). There are several checkboxes at the bottom: 'Show this query here again', 'Retain query box', 'Rollback when finished', and 'Enable foreign key checks'. The 'Go' button is highlighted.

Showing rows 0 - 0 (1 total, Query took 0.0015 seconds.)

```
SELECT SUM(FeeAmount) AS TotalFees FROM ServiceFees WHERE AccountID = 3;
```

TotalFees
75.00

33. Show all inactive accounts in ascending order by balance.

```
1 SELECT * FROM Accounts
2 WHERE Status = 'closed'
3 ORDER BY Balance ASC;
4
```

AccountID	CustomerID	AccountType	Balance	DateOpened	Status
14	14	Savings	15000.40	2023-07-30	Closed
24	24	Checking	18000.90	2023-12-01	Closed
10	10	Savings	20000.00	2023-06-10	Closed
19	19	Savings	25000.00	2023-10-01	Closed
5	5	Savings	30000.00	2023-04-07	Closed
29	29	Savings	30000.80	2024-02-05	Closed

34. Find employees hired after January 1, 2020.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT * FROM Employees
2 WHERE HireDate > '2020-01-01';
3
```

Clear Format Get auto-saved query Bind parameters

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project > Table: Employees

Browse Structure SQL Search Insert Export Import Operations Triggers

Show query box

✓ Showing rows 0 - 16 (17 total). Query took 0.0008 seconds.

SELECT * FROM Employees WHERE HireDate > '2020-01-01';

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table Sort by key: None

EmployeeID FirstName LastName Position HireDate Email Phone BranchID

1	Rahim	Ahmed	Branch Manager	2020-01-15	rahim.ahmed@company.com	01711234501	1
2	Karim	Chowdhury	Assistant Manager	2021-02-10	karim.chowdhury@company.com	01811234502	2
5	Lima	Akter	Accountant	2021-03-14	lima.akter@company.com	01811234505	5
7	Farid	Miah	Security	2020-12-20	farid.miah@company.com	01711234507	7
9	Kamal	Islam	Assistant Manager	2020-09-10	kamal.islam@company.com	01911234509	9
12	Sultana	Parvin	Loan Officer	2021-06-18	sultana.parvin@company.com	01911234512	12
13	Rubel	Alam	Customer Service	2022-01-11	rubel.alam@company.com	01711234513	13
15	Anif	Haque	Assistant Manager	2020-10-07	anif.haque@company.com	01911234515	15
16	Rehana	Sultana	Teller	2021-12-02	rehana.sultana@company.com	01711234516	16
18	Nafisa	Jannat	Cashier	2022-05-09	nafisa.jannat@company.com	01911234518	18
19	Sohail	Kadir	Loan Officer	2021-07-24	sohail.kadir@company.com	01711234519	19
20	Rina	Begum	Customer Service	2020-08-18	rina.begum@company.com	01811234520	20
23	Shapla	Rani	Teller	2020-11-15	shapla.rani@company.com	01811234523	23

35. Retrieve the top 5 customers by account balance.

phpMyAdmin

Server: 127.0.0.1 > Database: bdms_project

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Designer

Run SQL query/queries on database bdms_project:

```
1 SELECT CustomerID, Balance
2 FROM Accounts
3 ORDER BY Balance DESC
4 LIMIT 5;
```

Clear Format Get auto-saved query

Showing rows 0 - 4 (5 total, Query took 0.0004 seconds.) [Balance: 30000.80... - 28000.75...]

```
SELECT CustomerID, Balance FROM Accounts ORDER BY Balance DESC LIMIT 5;
```

CustomerID	Balance
29	30000.80
15	30000.10
23	30000.00
5	30000.00
12	28000.75

36. Count the number of transactions per account.

```
Run SQL query/queries on database bdms_project:
```

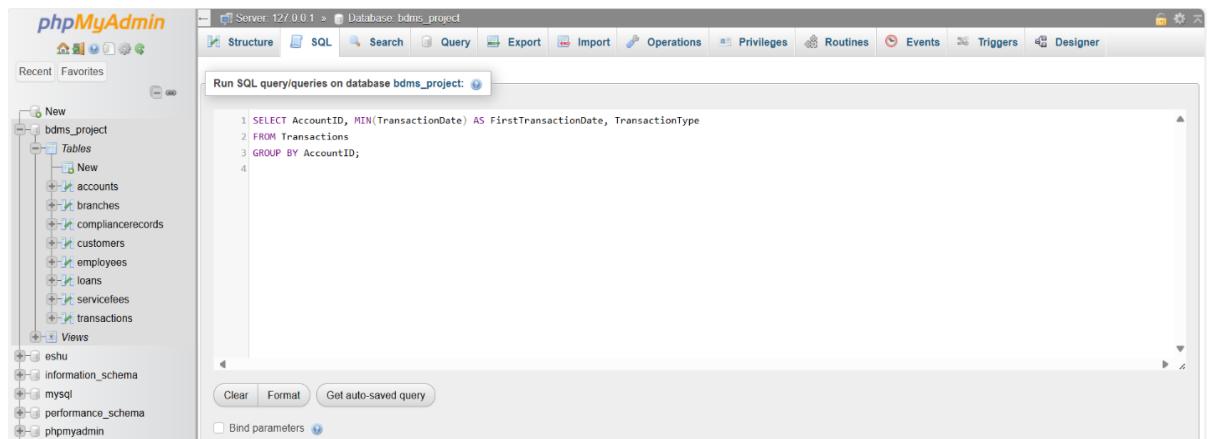
```
1 SELECT AccountID, COUNT(*) AS TransactionCount
2 FROM Transactions
3 GROUP BY AccountID;
4 |
```

Showing rows 0 - 24 (30 total, Query took 0.0003 seconds.)

```
SELECT AccountID, COUNT(*) AS TransactionCount FROM Transactions GROUP BY AccountID;
```

AccountID	TransactionCount
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1

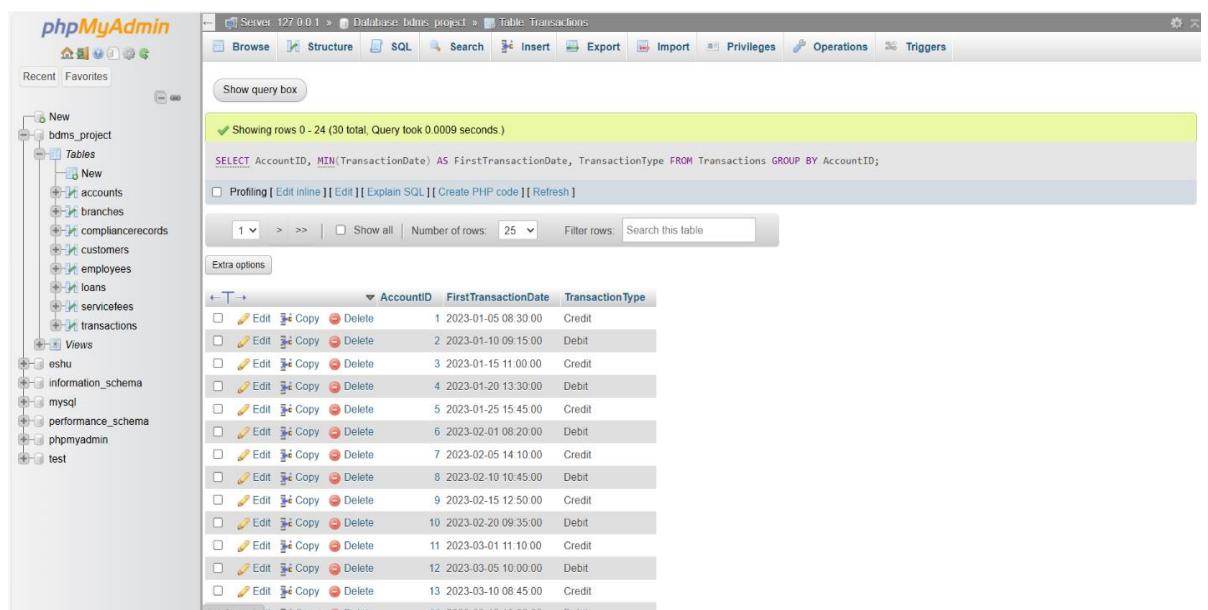
37. Show the date and type of the first transaction for each account.



The screenshot shows the phpMyAdmin interface for a database named 'bdms_project'. The left sidebar lists tables such as 'accounts', 'branches', 'compliancerecords', 'customers', 'employees', 'loans', 'servicefees', and 'transactions'. The main area contains a SQL query editor with the following code:

```
1 SELECT AccountID, MIN(TransactionDate) AS FirstTransactionDate, TransactionType
2 FROM Transactions
3 GROUP BY AccountID;
4
```

Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query', along with a checkbox for 'Bind parameters'.



The screenshot shows the phpMyAdmin interface for the 'Transactions' table within the 'bdms_project' database. The table structure includes columns: AccountID, FirstTransactionDate, and TransactionType. The data grid displays 14 rows of transaction records. The first few rows are:

	AccountID	FirstTransactionDate	TransactionType
1	1	2023-01-05 08:30:00	Credit
2	2	2023-01-10 09:15:00	Debit
3	3	2023-01-15 11:00:00	Credit
4	4	2023-01-20 13:30:00	Debit
5	5	2023-01-25 15:45:00	Credit
6	6	2023-02-01 08:20:00	Debit
7	7	2023-02-05 14:10:00	Credit
8	8	2023-02-10 10:45:00	Debit
9	9	2023-02-15 12:50:00	Credit
10	10	2023-02-20 09:35:00	Debit
11	11	2023-03-01 11:10:00	Credit
12	12	2023-03-05 10:00:00	Debit
13	13	2023-03-10 08:45:00	Credit
14	14	2023-03-14 02:00:00	Debit

38. List all accounts that have incurred fees.

phpMyAdmin

Run SQL query/queries on database bdms_project:

```
1: SELECT DISTINCT AccountID
2: FROM ServiceFees;
```

Clear Format Get auto-saved query Bind parameters

phpMyAdmin

Table: ServiceFees

Show query box

SELECT DISTINCT AccountID FROM ServiceFees;

Profile [Edit inline] [Explain SQL] [Create PHP code] Refresh

AccountID
1
2
3
4
5
6
7
8
9
10
11
12
13

39. Display customers who joined in the past 2 years.

phpMyAdmin

Run SQL query/queries on database bdms_project:

```
1: SELECT * FROM Customers
2: WHERE JoinDate >= DATE_SUB(CURDATE(), INTERVAL 2 YEAR);
3:
```

Clear Format Get auto-saved query Bind parameters

Showing rows 0 - 24 (31 total; Query took 0.0005 seconds.)

	CustomerID	FirstName	LastName	DateOfBirth	Email	Phone	Address	JoinDate
1	Anif	Rahman		1990-02-15	anif@gmail.com	01712345601	12/A Dhanmondi, Dhaka	2023-01-15
2	Sumaiya	Islam		1993-07-20	sumaiya.islam@example.com	01712345602	45 Gulshan, Dhaka	2023-02-10
3	Hasan	Ali		1985-11-03	hasan.ali@example.com	01712345603	23/B Mirpur, Dhaka	2023-03-12
4	Nafisa	Khatun		1988-05-09	nafisa.k@example.com	01712345604	6 Uttara, Dhaka	2023-03-25
5	Mahbub	Ahmed		1980-09-28	mahbub.ahmed@example.com	01712345605	15 Banani, Dhaka	2023-04-07
6	Farzana	Rahman		1991-03-21	farzana.rahman@example.com	01712345606	33/A Banchundhara, Dhaka	2023-04-20
7	Tanvir	Alam		1989-12-14	tanvir.alam@example.com	01712345607	14 Shantinagar, Dhaka	2023-05-01
8	Sadia	Hossain		1995-10-30	sadia.hossain@example.com	01712345608	24/C I Lamatia, Dhaka	2023-05-15
9	Raihan	Karim		1992-06-12	raihan.karim@example.com	01712345609	19 Farmgate, Dhaka	2023-05-30
10	Nusrat	Jahan		1988-08-22	nusrat.jahan@example.com	01712345610	9 Rampura, Dhaka	2023-06-10
11	Rafi	Chowdhury		1994-01-05	rafi.chowdhury@example.com	01712345611	10 Eskaton, Dhaka	2023-06-25
12	Nilufa	Begum		1978-05-18	nilufa.begum@example.com	01712345612	27 Motijheel, Dhaka	2023-07-05
13	Shakib	Khan		1982-04-02	shakib.khan@example.com	01712345613	5 Tejgaon, Dhaka	2023-07-17
14	Mitu	Ahmed		1997-09-15	mitu.ahmed@example.com	01712345614	16 Bandhara, Dhaka	2023-07-30

40. Display the number of employees per branch.

Run SQL query/queries on database bdms_project:

```
1 SELECT BranchID, COUNT(*) AS EmployeeCount
2 FROM Employees
3 GROUP BY BranchID;
4 |
```

Delimiter : Show this query here again Retain query box Rollback when finished Enable foreign key checks Go

Server: 127.0.0.1 > Database: bdms_project > Table: Employees

BranchID	EmployeeCount
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
	1