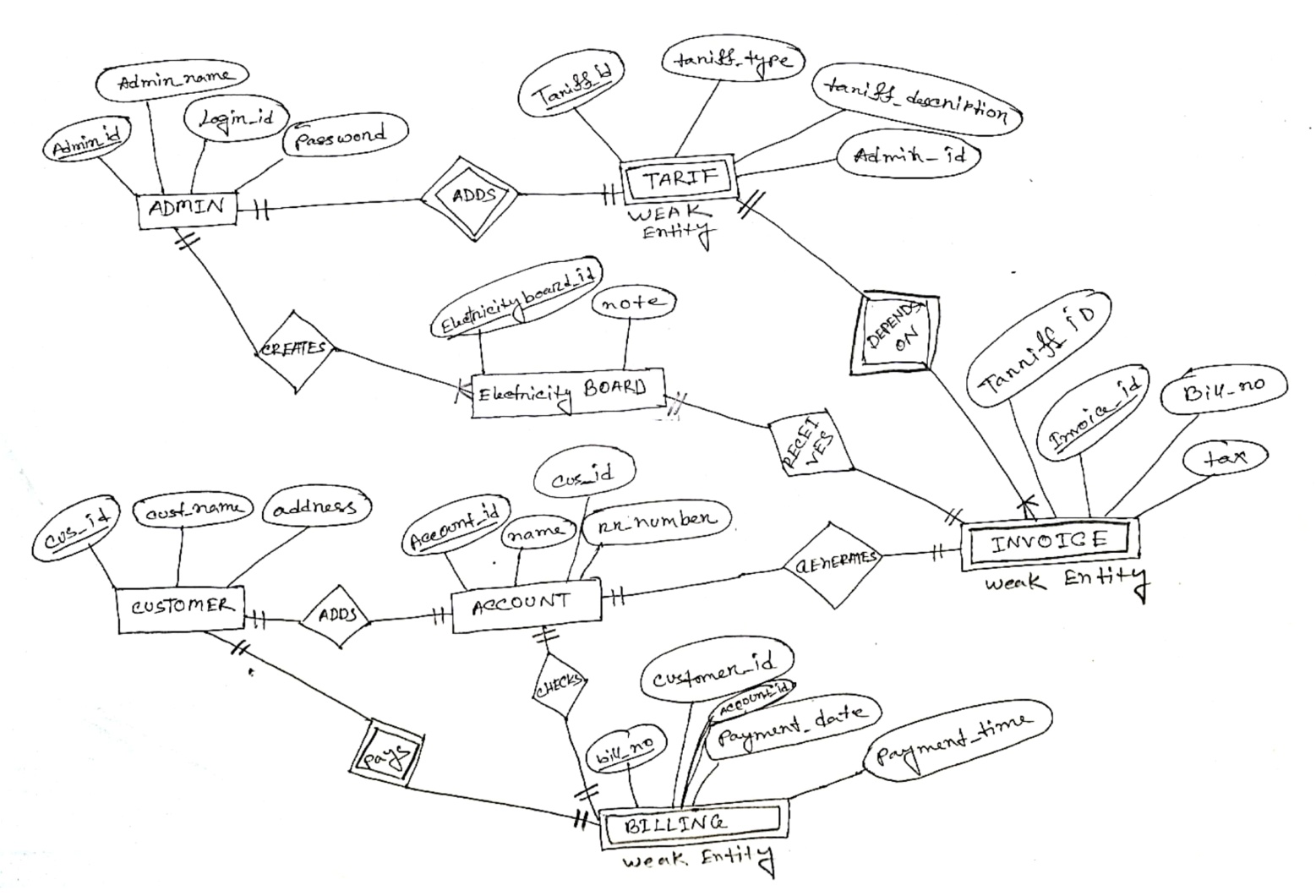
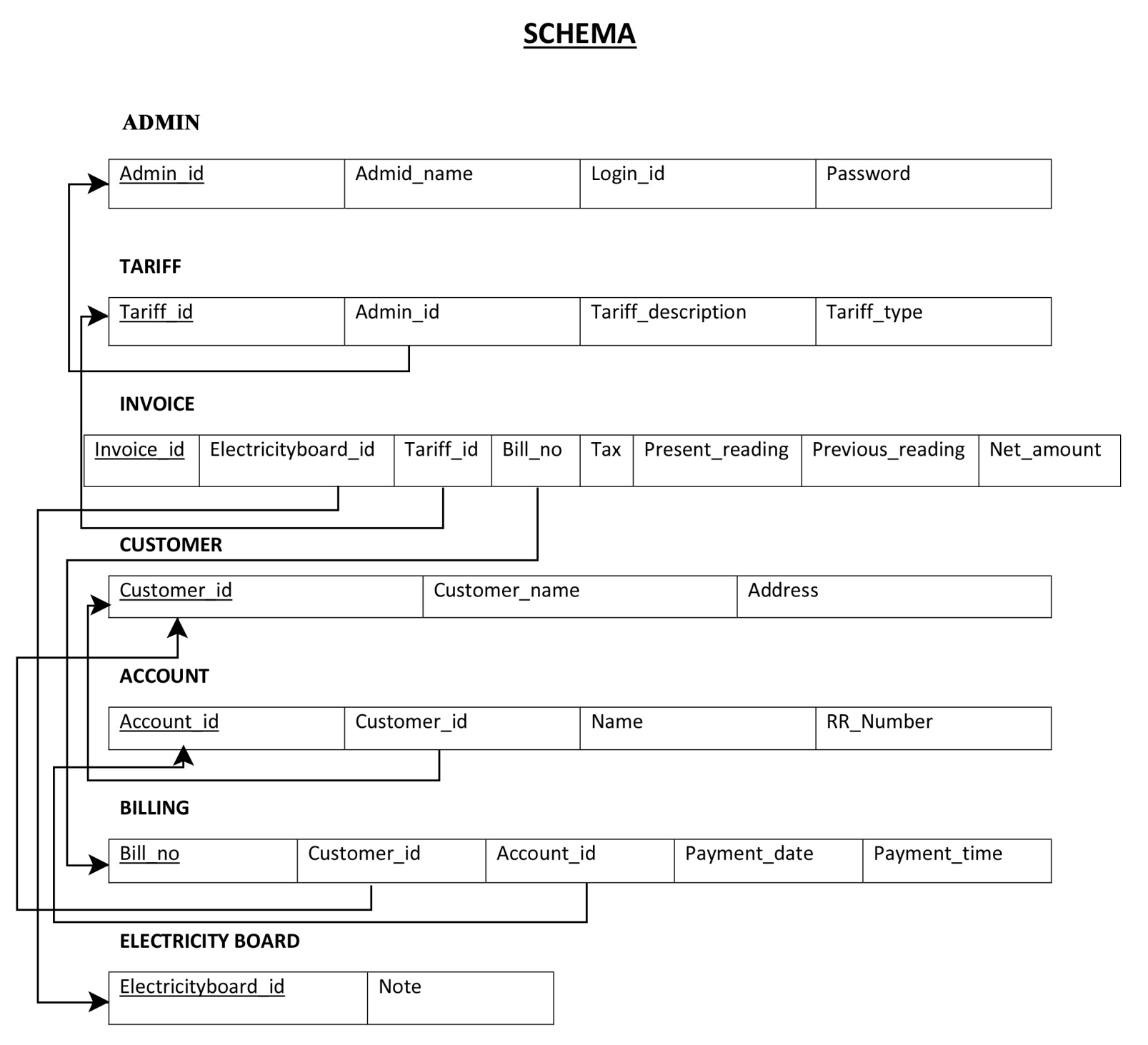
**Electric Bill System Database**

**EER DIAGRAM**

****



**SQL statements**

create database electricity\_bill\_system;

use electricity\_bill\_system;

**ADMIN**

CREATE TABLE admin (

Admin\_id varchar(15) NOT NULL,

Admin\_name varchar(15) NOT NULL,

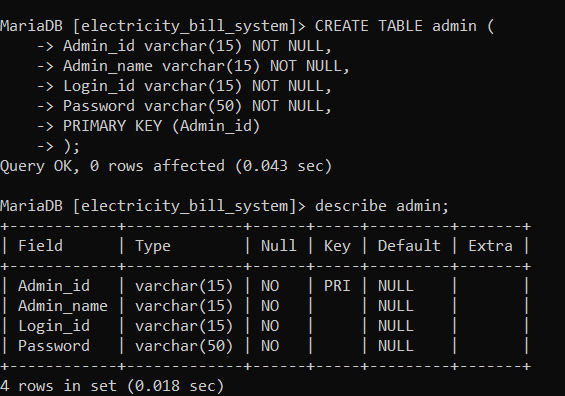
Login\_id varchar(15) NOT NULL,

Password varchar(50) NOT NULL,

PRIMARY KEY (Admin\_id)

);

**OUTPUT:**

****

**INSERT DATA INTO ADMIN:**

insert into admin(Admin\_id, Admin\_name, Login\_id, Password)

values

('EBS-201101', 'Jones', 'Jones201101', '01Jones201101'),

('EBS-201102', 'Smith', 'Smith201102', '02Smith201102'),

('EBS-201103', 'Hayes', 'Hayes201103', '03Hayes201103'),

('EBS-201104', 'Curry', 'Curry201104', '04Curry201104'),

('EBS-201105', 'Lindsay', 'Lindsay201105', '05Lindsay201105');

select \* from admin;

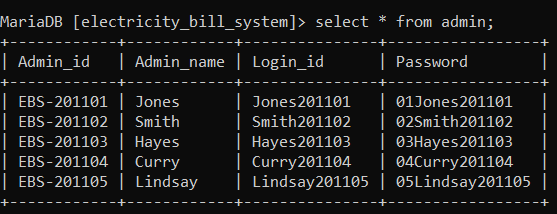
**Format:**

**insert into admin(Admin\_id, Admin\_name, Login\_id, Password)**

**values**

**(‘Insert admin ID here', 'Insert admin name here', 'Insert Admin login ID here', 'Insert admin password here');**

**OUTPUT:**

****

**TARIFF**

CREATE TABLE tariff (

Tariff\_id varchar(15) NOT NULL,

Admin\_id varchar(15) NOT NULL,

Tariff\_description varchar(255),

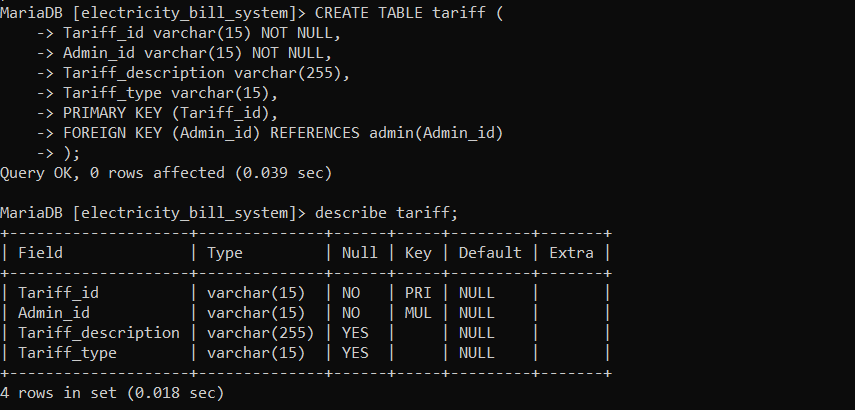
Tariff\_type varchar(15),

PRIMARY KEY (Tariff\_id),

FOREIGN KEY (Admin\_id) REFERENCES admin(Admin\_id)

);

**OUTPUT:**



**INSERT DATA INTO TARIFF:**

insert into tariff(Tariff\_id, Admin\_id, Tariff\_description, Tariff\_type)

values

('TID-01', 'EBS-201101', '3.75 tk per unit', 'Low (0-150 unit)'),

('TID-02', 'EBS-201102', '4.19 tk per unit', 'Medium (151-300 unit)'),

('TID-03', 'EBS-201104', '6.34 tk per unit', 'High (301-600 unit)'),

('TID-04', 'EBS-201105', '12.50 tk per unit', 'Platinum(600+ unit)');

select \* from tariff;

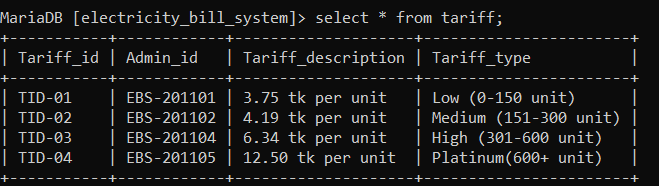
**FORMAT:**

**insert into tariff(Tariff\_id, Admin\_id, Tariff\_description, Tariff\_type)**

**values**

**('Insert Tariff id here', 'Insert Admin ID here', 'Insert Tariff description fere', 'Insert Tariff type here');**

**OUTPUT:**



**INVOICE**

CREATE TABLE invoice (

Invoice\_id varchar(15) NOT NULL,

Electricity\_board\_id varchar(15) NOT NULL,

Tariff\_id varchar(15) NOT NULL,

Bill\_no varchar(15) NOT NULL,

Tax\_taka FLOAT,

Present\_reading\_unit FLOAT,

Previous\_reading\_unit FLOAT,

Net\_amount\_taka FLOAT,

PRIMARY KEY (Invoice\_id),

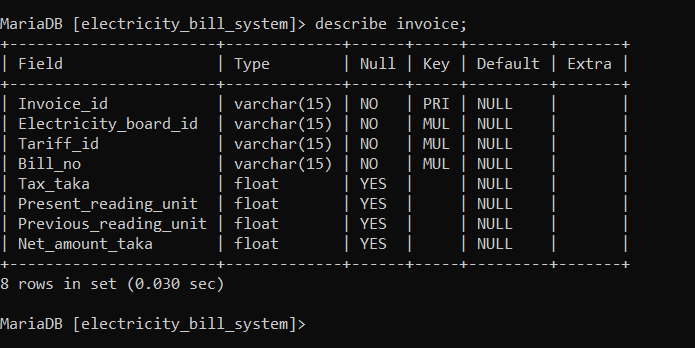
FOREIGN KEY (Electricity\_board\_id) REFERENCES electricity\_board(Electricity\_board\_id),

FOREIGN KEY (Tariff\_id) REFERENCES tariff(Tariff\_id),

FOREIGN KEY (Bill\_no) REFERENCES billing(Bill\_no)

);

**OUTPUT:**

****

**INSERT DATA INTO INVOICE:**

insert into invoice(Invoice\_id, Electricity\_board\_id, Tariff\_id, Bill\_no, Tax\_taka, Present\_reading\_unit, Previous\_reading\_unit, Net\_amount\_taka)

values

('INV-001', 'EBID0001', 'TID-01', '201101400', '34', '367850', '367750', '409'),

('INV-002', 'EBID0002', 'TID-03', '201101401', '45', '427336', '427026', '2010.4'),

('INV-003', 'EBID0003', 'TID-02', '201202402', '40', '253912', '253650', '1137.78'),

('INV-004', 'EBID0004', 'TID-04', '201202403', '55', '361858', '361295', '3624.42'),

('INV-005', 'EBID0005', 'TID-01', '201903404', '34', '12305', '12200', '491.75'),

('INV-006', 'EBID0006', 'TID-03', '202004405', '45', '11606', '11300', '1985.04');

select \* from invoice;

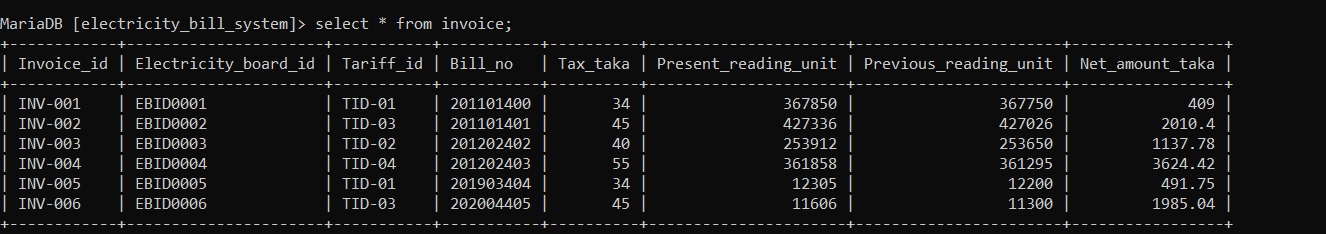
**FORMAT:**

insert into invoice(Invoice\_id, Electricity\_board\_id, Tariff\_id, Bill\_no, Tax\_taka, Present\_reading\_unit, Previous\_reading\_unit, Net\_amount\_taka)

values

('Insert Invoice\_id here ', ' Insert Electricity\_board\_id here', 'Insert Tariff\_id here', 'Insert Bill\_no here', 'Insert Tax\_taka here', 'Insert Present\_reading\_unit here', 'Insert Previous\_reading\_unit here', ' Insert Net\_amount\_taka here');

**OUTPUT:**



**CUSTOMER**

CREATE TABLE customer (

Customer\_id varchar(15) NOT NULL,

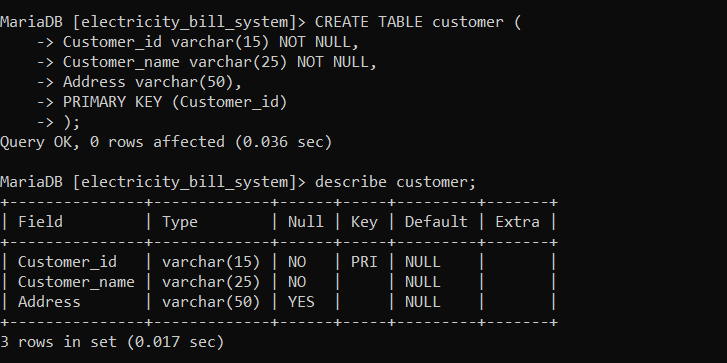
Customer\_name varchar(25) NOT NULL,

Address varchar(50),

PRIMARY KEY (Customer\_id)

);

**OUTPUT:**



**INSERT DATA INTO CUSTOMER:**

insert into customer(Customer\_id, Customer\_name, Address)

values

('24682101', 'Niloy Sen', 'Banani'),

('24682102', 'Tarek', ' Uttara'),

('24682103', 'Sumsul Islam', 'Banani'),

('24682104', 'Nahidul Hoque', 'Gulshan-1'),

('24682105', 'Sanjita Roy', 'Gulshan-2'),

('24682106', 'Shariful Islam', 'Uttara');

select \* from customer;

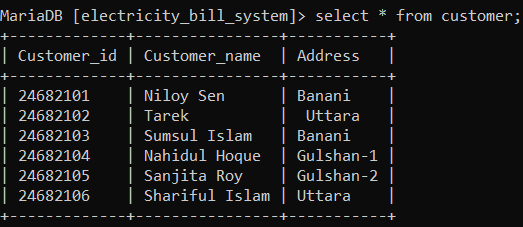
**FORMAT:**

insert into customer(Customer\_id, Customer\_name, Address)

values

('Insert Customer\_id here ', 'Insert Customer\_name here', 'Insert Address here');

**Output:**



**ACCOUNT**

CREATE TABLE account (

Account\_id varchar(15) NOT NULL,

Customer\_id varchar(15) NOT NULL,

Name varchar(25),

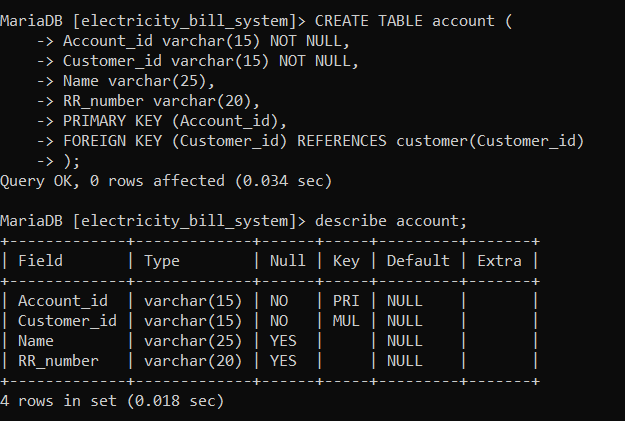
RR\_number varchar(20),

PRIMARY KEY (Account\_id),

FOREIGN KEY (Customer\_id) REFERENCES customer(Customer\_id)

);

**OUTPUT:**



**INSERT DATA INTO ACCOUNT:**

insert into account(Account\_id, Customer\_id, Name, RR\_number)

values

('201124682101', '24682101', 'Niloy Sen', 'BNN201'),

('201124682102', '24682102', 'Tarek', 'UTT101'),

('201224682103', '24682103', 'Sumsul Islam', 'BNN202'),

('201224682104', '24682104', 'Nahidul Hoque', 'GLN301'),

('201924682105', '24682105', 'Sanjita Roy', 'GLN401'),

('202024682106', '24682106', 'Shariful Islam', 'UTT102');

select \* from account;

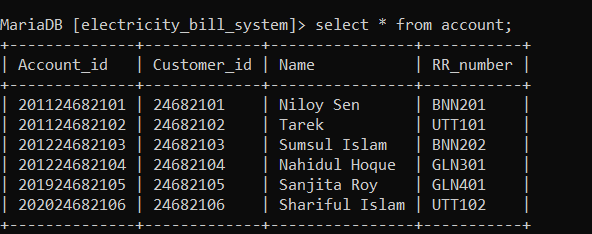
**FORMAT:**

**insert into account(Account\_id, Customer\_id, Name, RR\_number)**

**values**

**('Insert Account\_id here', 'Insert Customer\_id here', Insert Name here', 'Insert RR\_number here');**

**OUTPUT:**



**BILLING**

CREATE TABLE billing (

Bill\_no varchar(15) NOT NULL,

Customer\_id varchar(15) NOT NULL,

Account\_id varchar(15) NOT NULL,

Payment\_date DATE,

Payment\_time TIME,

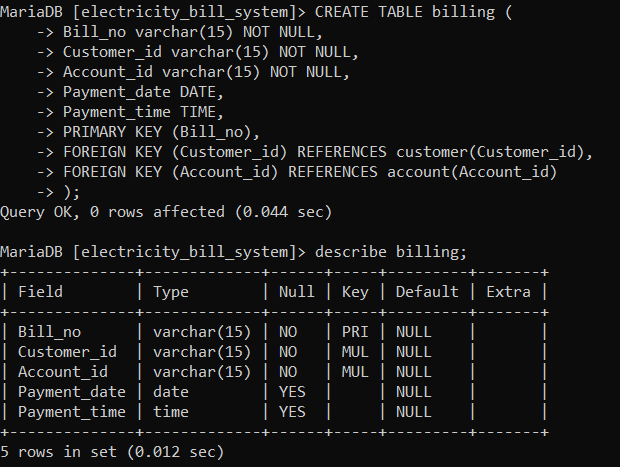
PRIMARY KEY (Bill\_no),

FOREIGN KEY (Customer\_id) REFERENCES customer(Customer\_id),

FOREIGN KEY (Account\_id) REFERENCES account(Account\_id)

);

**OUTPUT:**

****

**INSERT DATA INTO BILLING:**

insert into billing(Bill\_no, Customer\_id, Account\_id, Payment\_date, Payment\_time)

values

('201101400', '24682101', '201124682101', '2021-12-09', '09:15:00'),

('201101401', '24682102', '201124682102', '2021-12-10', '11:25:00'),

('201202402', '24682103', '201224682103', '2021-12-12', '14:34:00'),

('201202403', '24682104', '201224682104', '2021-12-14', '13:45:00'),

('201903404', '24682105', '201924682105', '2021-12-25', '10:12:00'),

('202004405', '24682106', '202024682106', '2021-12-29', '15:30:00');

select \* from billing;

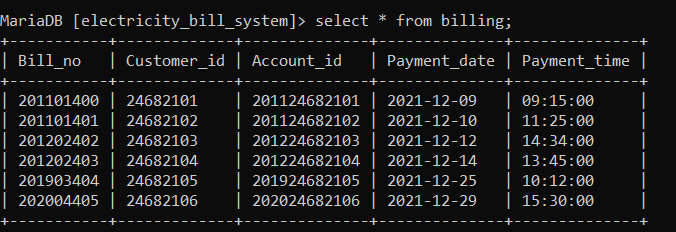
**FORMAT:**

insert into billing(Bill\_no, Customer\_id, Account\_id, Payment\_date, Payment\_time)

values

('Insert Bill\_no here', 'Insert Customer\_id here', 'Insert Account\_id here', 'Insert Payment\_date here', 'Insert Payment\_time here');

**OUTPUT:**

****

**ELECTRICITY BOARD**

CREATE TABLE electricity\_board (

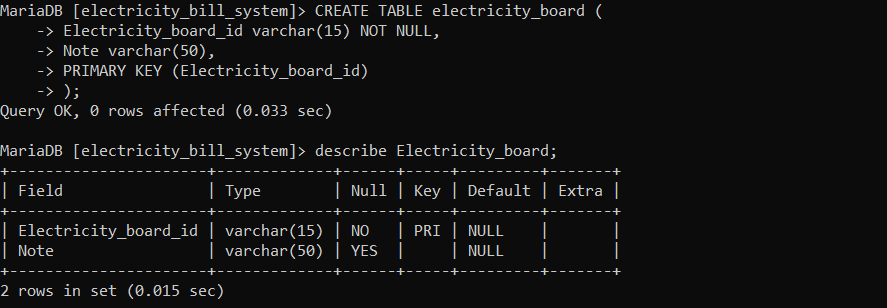
Electricity\_board\_id varchar(15) NOT NULL,

Note varchar(50),

PRIMARY KEY (Electricity\_board\_id)

);

**OUTPUT:**

****

**INSERT DATA INTO ELECTRICITY BOARD**

insert into electricity\_board(Electricity\_board\_id, Note)

values

('EBID0001', 'Residential Area'),

('EBID0002', 'Residential Area'),

('EBID0003', 'Residential Area'),

('EBID0004', 'Residential Area'),

('EBID0005', 'Residential Area'),

('EBID0006', 'Residential Area');

select \* from electricity\_board;

**FORMAT:**

**insert into electricity\_board(Electricity\_board\_id, Note)**

**values**

**('Insert Electricity\_board\_id here', 'Insert Note here');**

**UPDATE ADMIN INFORMATION**

UPDATE admin

SET Admin\_name = 'Type new name here',

Login\_id = 'Type new Login\_id here',

Password= 'Type new Password here'

WHERE Admin\_id = 'Type the Admin id which data you want to change';

select \* from admin;

**UPDATE TARIFF INFORMATION**

UPDATE tariff

SET Tariff\_description = 'Type new descriptio here',

Tariff\_type = 'Type new Tariff\_type here'

WHERE Tariff\_id = 'Type the Tariff\_id which data you want to change';

select \* from tariff;

**UPDATE INVOICE INFORMATION**

UPDATE invoice

SET Tax\_taka = 'Type new Tax here',

Present\_reading\_unit = 'Type new present reading unit here'

Previos\_reading\_unit = 'Type new previous reading unit here'

WHERE Invoice\_id = 'Type the invoice id which you want to change';

select \* from invoice;

**UPDATE CUSTOMER INFORMATION**

UPDATE customer

SET Customer\_name = 'Type new name here',

Address = 'Type new adress here'

WHERE Customer\_id= 'Type the Customer id which data you want to change';

select \* from customer;

**UPDATE ACCOUNT INFORMATION**

UPDATE account

SET Name = 'Type new name here',

RR\_Number = 'Type new RR\_Number here'

WHERE Accunt\_id= 'Type the Account id which data you want to change';

select \* from account;

**UPDATE BILLING INFORMATION**

UPDATE billing

SET Payment\_date = 'Type new Payment\_date here',

Payment\_time = 'Type new Payment\_time here'

WHERE Bill\_no= 'Type the Bill\_no which data you want to change';

select \* from billing;

**UPDATE ELECTRICITY BOARD INFORMATION**

UPDATE electricity\_board

SET Electricityboard\_id = 'Type new electricity board id here',

Note = 'Type new Note here'

WHERE Electricityboard\_id = 'Type the Electricityboard\_id which data you want to change';

select \* from electricity\_board;

**DELETE ADMIN INFORMATION**

Delete FROM admin

WHERE Admin\_id = 'Type the admin id which data you want to delete';

select \* from admin;

**DELETE TARIFF INFORMATION**

Delete FROM tariff

WHERE Tariff\_id = 'Type the tariff id which data you want to delete';

select \* from tariff;

**DELETE INVOICE INFORMATION**

Delete FROM invoice

WHERE Invoice\_id = 'Type the invoice id which data you want to delete';

select \* from invoice;

**DELETE CUSTOMER INFORMATION**

Delete FROM customer

WHERE Customer\_id = 'Type the Customer id which data you want to delete';

select \* from customer;

**DELETE ACCOUNT INFORMATION**

Delete FROM account

WHERE Account\_id = 'Type the Account id which data you want to delete';

select \* from account;

**DELETE BILLING INFORMATION**

Delete FROM billing

WHERE Bill\_no = 'Type the Bill no which data you want to delete';

select \* from billing;

**DELETE ELECTRICITY BOARD INFORMATION**

Delete FROM electricity\_board

WHERE Electricityboard\_id = 'Type Electricityboard\_id which data you want to delete';

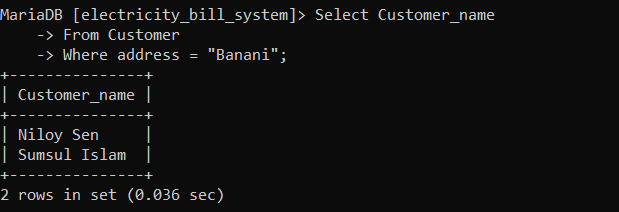
select \* from electricity\_board;

1. Find the customer's name whose address is banani ?

Select Customer\_name

From Customer

Where address = “Banani”;

**Output:**

1. Find the customer's id and customer's name whose payment time is 15:30:00 ?

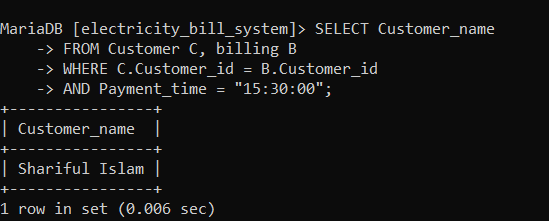
SELECT Customer\_name

FROM Customer C, billing B

WHERE C.Customer\_id = B.Customer\_id

AND Payment\_time = “15:30:00”;

**Output:**

****

1. FInd the admin name and password from the tariff Description ?

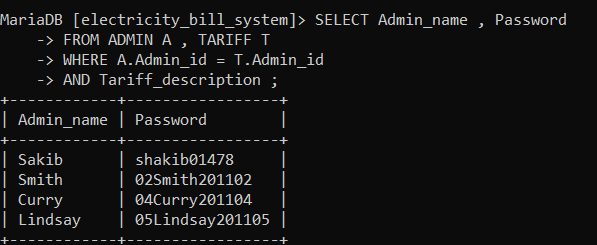
SELECT Admin\_name , Password

FROM ADMIN A , TARIFF T

WHERE A.Admin\_id = T.Admin\_id

AND Tariff\_description ;

**Output:**

****

1. Find the names and addresses who have bill no 201202403 ?

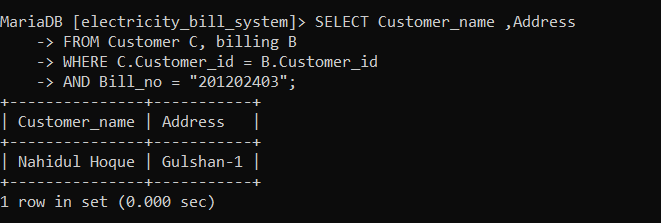
SELECT Customer\_name ,Address

FROM Customer C, billing B

WHERE C.Customer\_id = B.Customer\_id

AND Bill\_no = “201202403”;

**OUTPUT:**

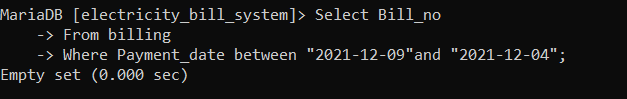
****

1. Find the bill\_no who gives payment between 09-12-2021 to 14-12-2021?

Select Bill\_no

From billing

Where Payment\_date between “2021-12-09”and “2021-12-04”;



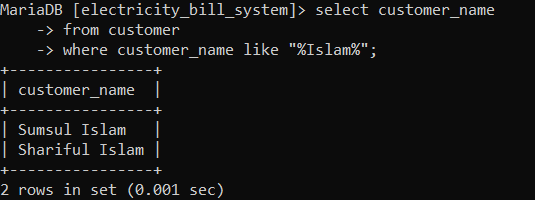
1. Find the customers name whose name ending is Islam?

select customer\_name

from customer

where customer\_name like “%Islam%”

**OUTPUT:**

****

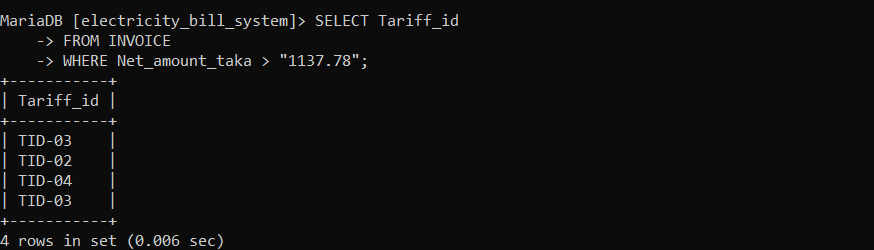
1. Find the Tariff id whose net amount is greater than 1137.78 TK?

SELECT Tariff\_id

FROM INVOICE

WHERE Net\_amount\_taka > “1137.78”

**OUTPUT:**

****