

CS 3042

Database Systems

Database Schema

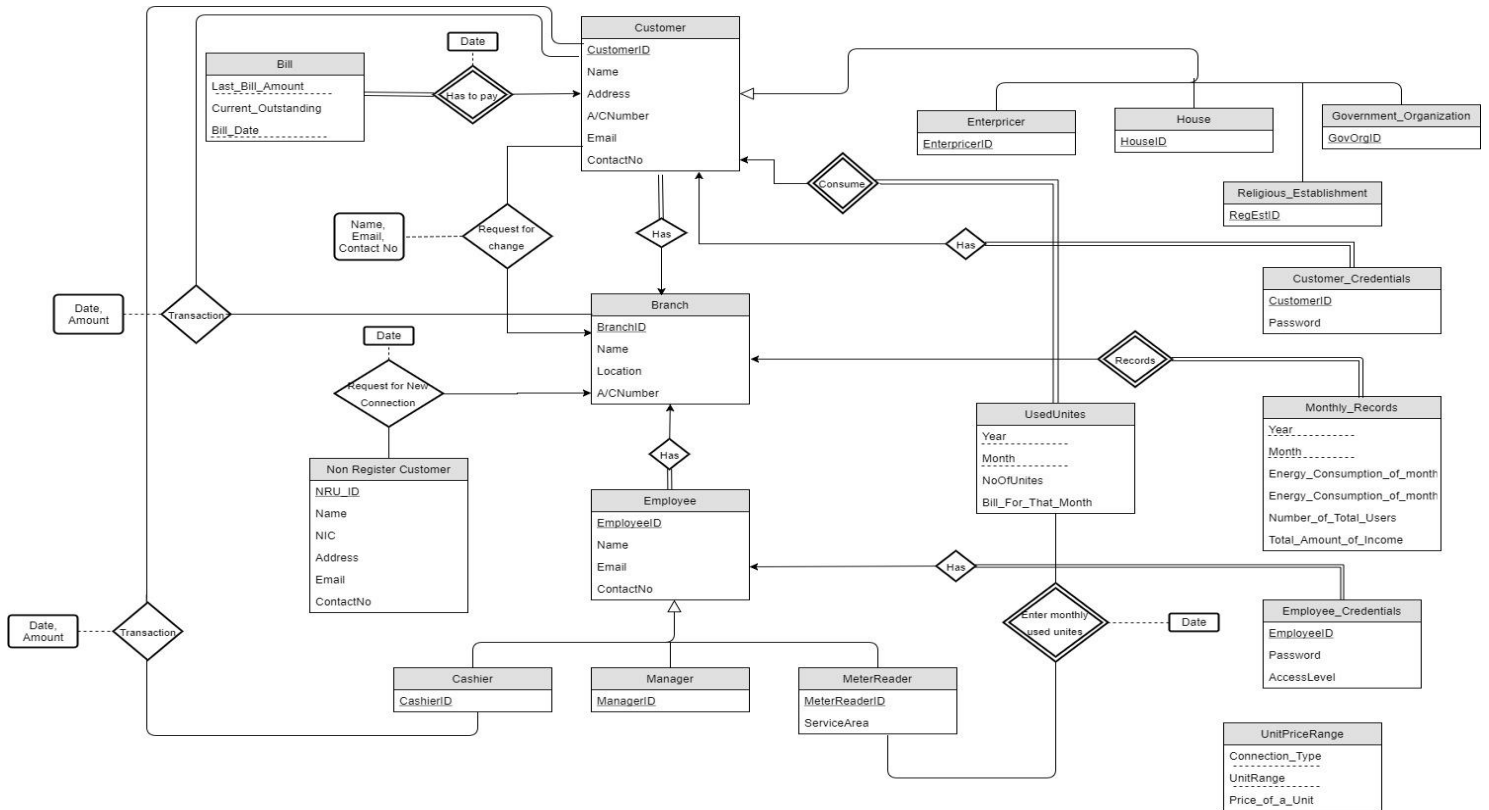
W.T.G.Wathukara – 150667V

R.A.D.S.P. Ranatunge – 150511N

E.S.M. Suranga – 150621C

A.V.R.S. Vitharama – 150657P

ER Diagram



Database Schema

create table Branch

```
(ID int(11),
name varchar(100),
location varchar(100),
account_Number int(20),
primary key (ID)
);
```

```
create table Employee
    (ID int(11),
    branch_ID int(11),
    name varchar(100),
    email varchar(100),
    contact_No int(10),
    primary key (ID),
    foreign key (branch_ID) references Branch(ID)
        on delete set null
    );
```

```
create table Cashier
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Employee(ID));
```

```
create table Manager
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Employee(ID));
```

```
create table Meter_Reader
    (ID int(11),
    service_Area varchar(100),
    primary key(ID),
    foreign key (ID) references Employee(ID));
```

```
create table Customer
    (ID int(11),
    branch_ID int(11),
    name varchar(100),
    address varchar(255),
    account_Number int(20),
    email varchar(100),
    contact_No int(10),
    primary key (ID),
    foreign key (branch_ID) references Branch(ID)
        on delete set null
    );
```

```
create table Emterpricer
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Customer(ID)
    );
```

```
create table House
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Customer(ID));
```

```
create table Govenment_Organization
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Employee(ID));
```

```
create table Relligious_Establishment
    (ID int(11),
    primary key(ID),
    foreign key (ID) references Employee(ID));
```

```
create table Used_Unites
    (year int(4),
    month varchar(20),
    customer_ID int(11),
    no_Of_Units int(20),
    bill_For_That_Month int(20),
    foreign key (customer_ID) references Customer(ID)
        on delete set null
    );
```

```
create table Customer_Used_Units
    (date date,
    customer_ID int(11),
    Meter_Reader_ID int(11),
    foreign key (customer_ID) references Customer(ID)
        on delete set null,
    foreign key (Meter_Reader_ID) references Meter_Reader(ID)
        on delete set null
    );
```

```
create table Monthly_Records
    (year int(4),
    branch_ID int(11),
    month varchar(20),
    energy_Consumption_Of_Month int(20),
    number_Of_Total_Users int(20),
    total_Amount_Of_Income int(20),
    foreign key (branch_ID) references Branch(ID)
        on delete set null
    );
```

```
create table Unit_Price_Range
    (connection_Type varchar(20),
    unit_Range varchar(20),
    price_Of_A_Unit int(20)
    );
```

```
create table Bill
    (customer_ID int (11),
    last_Bill_Amount int(20),
    current_Outstanding int(20),
    due_Date int(20),
    foreign key (customer_ID) references Customer(ID)
        on delete set null
    );
```

create table Non_Register_Customer

(ID int(11),
name varchar(100),
NIC varchar(12),
address varchar(100),
email varchar(100),
contact_No int(10),
primary key (ID,NIC)
);

create table Register_Request

(date date,
customer_ID int(11),
branch_ID int(11),
foreign key (customer_ID) references Non_Register_Customer(ID)
on delete set null,
foreign key (branch_ID) references Branch(ID)
on delete set null
);

create table Change_Customer_Details

(customer_ID int (11),
branch_ID int(11),
new_Name varchar(100),
new_Email varchar(100),
new_Contact_No int (12),
foreign key (customer_ID) references Customer(ID)
on delete set null,
foreign key (branch_ID) references Branch(ID)
on delete set null);

create table Transaction

```
(customer_ID int(11),  
branch_ID int(11),  
cashier_ID int(11),  
date date,  
amount numeric(10,2),  
foreign key (customer_ID) references Customer(ID)  
on delete set null,  
foreign key (branch_ID) references Branch(ID)  
on delete set null,  
foreign key (cashier_ID) references Cashier(ID)  
on delete set null  
);
```

create table Employee_Credentials

```
(ID int(11),  
password varchar(20),  
access_Level varchar(20),  
foreign key (ID) references Employee(ID)  
on delete set null  
);
```

create table Customer_Credentials

```
(ID int(11),  
password varchar(20),  
foreign key (ID) references Customer(ID)  
on delete set null  
);
```