1. **user\_details**

CREATE TABLE user\_details(user\_id integer(6) AUTO\_INCREMENT, first\_name varchar(30), last\_name varchar(30), DOB date, phone\_no varchar(10), email\_id varchar(30), passw varchar(20), CONSTRAINT PK\_Customer PRIMARY KEY(user\_id, phone\_no), CHECK (user\_id >= 100000);

CREATE TABLE customer\_details(user\_id integer(6), auto\_renewal INTEGER, postal\_code integer(6), account\_no varchar(18), card\_holder\_name varchar(20), expiry\_date date, CONSTRAINT PK\_cust PRIMARY KEY(user\_id);

CREATE TABLE Admin\_details(admin\_id integer(6), user\_id integer(6), admin\_control\_area INTEGER, CONSTRAINT PK\_Admin PRIMARY KEY(admin\_id, user\_id));

CREATE TABLE Address(pincode integer, city varchar(20), state varchar(20), CONSTRAINT PK\_Address PRIMARY KEY(pincode));

1. **customer\_details**

CREATE TABLE customer\_details(user\_id integer(6), auto\_renewal INTEGER, postal\_code integer(6), account\_no varchar(18), card\_holder\_name varchar(20), expiry\_date date, CONSTRAINT PK\_cust PRIMARY KEY(user\_id);

1. **Admin\_details**

CREATE TABLE Admin\_details(admin\_id integer(6), user\_id integer(6), admin\_control\_area INTEGER, CONSTRAINT PK\_Admin PRIMARY KEY(admin\_id, user\_id));

1. **Address**

CREATE TABLE Address(pincode integer, city varchar(20), state varchar(20), CONSTRAINT PK\_Address PRIMARY KEY(pincode));

1. **service\_details**

CREATE TABLE service\_details(service\_no integer(6), pincode integer, CONSTRAINT PK\_ser PRIMARY KEY(service\_no), FOREIGN key(pincode) REFERENCES Address(pincode));

1. **Billing**

CREATE TABLE Billing(bill\_no varchar(10), cons\_category\_id integer AUTO\_INCREMENT, cons\_appl\_id integer AUTO\_INCREMENT, ec\_id integer AUTO\_INCREMENT, oc\_id integer AUTO\_INCREMENT, units\_consumed\_cycle integer, FOREIGN key(ec\_id) REFERENCES Energy\_charge(ec\_id), FOREIGN key(oc\_id) REFERENCES other\_charge(oc\_id),

FOREIGN key(cons\_appl\_id) REFERENCES Appliances(cons\_appl\_id),

);

1. **Energy\_charge**

CREATE TABLE Energy\_charge(ec\_id integer AUTO\_INCREMENT , energy\_charge\_per\_unit float, tariff\_slab varchar(10), total\_energy\_charges float, CONSTRAINT PK\_EC PRIMARY KEY(ec\_id));

1. **other\_charge**

CREATE TABLE other\_charge(oc\_id integer AUTO\_INCREMENT, Duty float, GST float, fixed\_charges float, total\_other\_charges float CONSTRAINT PK\_EC PRIMARY KEY(oc\_id));

1. **Appliances**

CREATE TABLE Appliances(cons\_appl\_id integer AUTO\_INCREMENT, office integer, laundry integer, Heating\_Cooling integer, lights integer, kitchen integer, misc integer, tools integer CONSTRAINT PK\_EC PRIMARY KEY(cons\_appl\_id));

1. **Consumption**

CREATE TABLE Consumption(cons\_category\_id integer AUTO\_INCREMENT, units\_consumed\_heavy integer, units\_consumed\_medium integer, units\_consumed\_low integer CONSTRAINT PK\_EC PRIMARY KEY(cons\_category\_id));

1. **Payment\_details**

CREATE TABLE Payment\_details(transaction\_id varchar(10), pay\_amt float, pay\_status varchar(10), pay\_date date, pay\_time timestamp, CONSTRAINT PK\_Payment PRIMARY KEY(transaction\_id));

1. **Bill\_details**

CREATE TABLE Bill\_details(bill\_no varchar(10), user\_id integer(6), transaction\_id integer(10), bill\_amt float, bill\_area integer, issue\_month varchar(9), issue\_date date, CONSTRAINT PK\_billDet PRIMARY KEY(bill\_no, user\_id), FOREIGN key(bill\_no) REFERENCES Billing(bill\_no), FOREIGN key(user\_id) REFERENCES customer\_details(user\_id), FOREIGN KEY(transaction\_id) REFERENCES Payment\_details(transaction\_id));

1. **Feedback**

CREATE TABLE Feedback(fb\_id integer AUTO\_INCREMENT, user\_id integer(6fb\_desc varchar(50), fb\_date date, fb\_time timestamp, Constraint PK\_Feedback PRIMARY KEY(fb\_id, user\_id), FOREIGN KEY(user\_id) REFERENCES customer\_details(user\_id));