**-- AGENT**

CREATE TABLE AGENT(

agentID varchar(10),

agentFName varchar(100) NOT NULL,

agentLName varchar(100) NOT NULL,

contactNo char(10),

emailOfAgent varchar(100) NOT NULL,

numberOfTickets int DEFAULT 0,

constraint check\_phone\_agent check (regexp\_like (contactNo, '[0-9]{10}')),

CONSTRAINT PK\_Agent PRIMARY KEY (agentID)

);

**-- CLUB\_MEMBER**

CREATE TABLE CLUB\_MEMBER(

custID varchar(10),

membershipID varchar(10) UNIQUE NOT NULL,

membershipStartDate DATE,

nextPaymentDueOn DATE,

CONSTRAINT PK\_ClubMember PRIMARY KEY (custID),

CONSTRAINT FK\_PK\_ClubMember FOREIGN KEY (custID) REFERENCES CUSTOMERS (custID) on delete cascade

);

**-- COUPONS**

CREATE TABLE COUPONS(

couponCode varchar(20),

couponDescription varchar(100),

couponValidity DATE,

discount float,

CONSTRAINT PK\_CouponCode PRIMARY KEY (couponCode)

);

**-- CUSTOMER\_CARE**

CREATE TABLE CUSTOMER\_CARE(

custQueryID varchar(10),

description varchar(100),

queryType varchar(100),

querySubType varchar(100),

status varchar(50) DEFAULT ‘OPEN’,

custID varchar(10),

agentID varchar(10),

Constraint check\_query CHECK queryType IN ('Online experience','Store experience', 'Products','Services'),

Constraint check\_querysub CHECK querySubType IN ('Orders','Replacement','Account','Other','Refund'),

Constraint check\_status CHECK status IN ('Open','Close','Pending'),

CONSTRAINT PK\_CustomerCare NOT NULL PRIMARY KEY (custQueryID),

CONSTRAINT FK\_CustomerCare FOREIGN KEY (custID, agentID) REFERENCES CUSTOMERS(custID) on delete cascade, AGENTS(agentID) on delete set null

);

CREATE TABLE CUSTOMERS(

custID varchar(10),

fName varchar(100) not null,

lName varchar(100) not null,

phoneNo char(10) not null,

email varchar(100) not null unique,

password varchar(20) not null,

walletBalance number(8,2) default 0,

constraint cust\_pkey primary key(custID),

constraint check\_phone\_cust check (regexp\_like (phoneNo, '[0-9]{10}')),

constraint check\_email\_cust check (email like '%@%.%'),

constraint check\_pwd\_length check (length(password)>=8)

);

alter table CUSTOMERS add constraint cust\_email\_unique UNIQUE(email);

**-- DEALS**

CREATE TABLE DEALS(

dealID varchar(10),

dealDescription varchar(100) NOT NULL,

discountStartDate DATE NOT NULL,

discountEndDate DATE NOT NULL,

discountPercentage float NOT NULL,

isMember char(3),

CONSTRAINT check\_isMember CHECK isMember IN (‘Yes’, ‘No’),

CONSTRAINT PK\_Deals PRIMARY KEY (dealID)

);

**-- DEALS\_ON\_PRODUCTS**

CREATE TABLE DEALS\_ON\_PRODUCTS(

dealID varchar(10),

productID varchar(10),

CONSTRAINT PK\_DOP PRIMARY KEY (dealID, productID),

CONSTRAINT FK\_DOP FOREIGN KEY (dealID, productID) REFERENCES DEALS(dealID) on delete set null, PRODUCTS(productID) on delete set null

);

**-- DEPARTMENT**

CREATE TABLE DEPARTMENT(

deptID varchar(10),

category varchar(100) NOT NULL,

subCatergory varchar(100) NOT NULL,

CONSTRAINT PK\_DEPT PRIMARY KEY (deptID),

CONSTRAINT category\_types CHECK category IN ('Power Tools','Hand Tools','Automotive','Welding','Plumbing','Electricial','Hardware','Material Handling','Painting','Lighting','Safety','Home and Security','Lawn and Garden','Air Tools','Generators')

);

**-- GIFT\_CARDS**

CREATE TABLE GIFT\_CARDS(

serialNumber varchar(20),

giftCardCode char(16) UNIQUE,

amount float NOT NULL,

isActivated char(3) DEFAULT 'No',

CONSTRAINT check\_Activation CHECK isActivated IN ('Yes','No'),

constraint check\_giftcard\_length check (length(giftCardCode )=16),

Constraint amount\_types CHECK amount IN ('25','50','75','100'),

CONSTRAINT PK\_GIFT\_CARDS PRIMARY KEY (serialNumber),

CONSTRAINT FK\_GIFT\_CARDS FOREIGN KEY serialNumber REFERENCES ITEMS(serialNumber) on delete cascade

);

**-- GIFT\_CARD\_ACTIVATION**

CREATE TABLE GIFT\_CARD\_ACTIVATION(

serialNumber varchar(20),

custID varchar(10),

dateOfActivation DATE NOT NULL,

CONSTRAINT PK\_GIFT\_CARDS\_ACTIVATION PRIMARY KEY (serialNumber , custID),

CONSTRAINT FK\_GIFT\_CARDS\_ACTIVATION FOREIGN KEY (serialNumber, custID) REFERENCES GIFT\_CARDS(serialNumber) on delete cascade, CUSTOMERS(custID) on delete cascade

);

**-- HFCC**

CREATE TABLE HFCC(

limit float NOT NULL,

creditCardNo char(16),

custID varchar(10),

CVV char(3),

validTill DATE NOT NULL,

appliedOn DATE NOT NULL,

constraint creditcard\_length check (length(creditCardNo)=16),

constraint cvv\_length check (length(CVV )=3),

CONSTRAINT PK\_HFCC PRIMARY KEY (creditCardNo),

CONSTRAINT FK\_HFCC FOREIGN KEY (custID) REFERENCES CUSTOMERS(custID) on delete cascade

);

**--ITEMS**

CREATE TABLE ITEMS(

serialNumber varchar(20),

availability char(3),

manufacturingDate DATE,

productID varchar(10),

storeID varchar(10),

orderID varchar(10),

CONSTRAINT check\_isAvailable CHECK isMember IN (‘Yes’, ‘No’),

CONSTRAINT PK\_ITEMS PRIMARY KEY (serialNumber),

CONSTRAINT FK\_ITEMS FOREIGN KEY (productID, storeID, orderID) REFERENCES PRODUCTS(productID) on delete cascade, STORES(storeID) on delete cascade, ORDERS(orderID) on delete set null

);

**-- ORDERS**

CREATE TABLE ORDERS(

orderID varchar(50),

orderDate DATE NOT NULL,

orderStatus varchar(20) NOT NULL,

shippingDate DATE,

estimatedDeliveryDate DATE NOT NULL,

actualDeliveryDate DATE,

paymentMode varchar(20) NOT NULL,

couponDiscount float,

subtotal float NOT NULL,

grandTotal float NOT NULL,

couponCode varchar(20),

custID varchar(10),

shippingID varchar(10),

CONSTRAINT PK\_ORDERS PRIMARY KEY (orderID),

CONSTRAINT FK\_ORDERS\_COUPONS FOREIGN KEY (couponCode) REFERENCES COUPONS(couponCode) on delete set null,

CONSTRAINT FK\_ORDERS\_CUSTOMERS FOREIGN KEY (custID) REFERENCES CUSTOMERS(custID) on delete cascade,

CONSTRAINT FK\_ORDERS\_SHIPPING FOREIGN KEY (shippingID) REFERENCES SHIPPING(shippingID) on delete set null

);

**-- PRODUCTS**

CREATE TABLE PRODUCTS(

productID varchar(10),

productOverview varchar(1000) NOT NULL,

pricePerUnit FLOAT NOT NULL,

productName varchar(100) NOT NULL,

returnPeriod int NOT NULL,

reviewID varchar(10),

deptID varchar(10),

CONSTRAINT PK\_PRODUCTS PRIMARY KEY (productID),

CONSTRAINT FK\_PRODUCTS FOREIGN KEY (reviewID, deptID) REFERENCES REVIEW\_DETAILS(reviewID) on delete set null, DEPARTMENTS(deptID) on delete set null

);

**-- RETURNS**

CREATE TABLE RETURNS(

returnID varchar(10),

returnStatus varchar(20) DEFAULT ‘initiated’,

reasonForReturn varchar(150) NOT NULL,

requestDate DATE NOT NULL,

returnedDate DATE NOT NULL,

refundStatus varchar(10) DEFAULT ‘initiated’,

serialNumber varchar(20),

orderID varchar(20),

Constraint check\_returnstatus CHECK returnStatus IN ('Initiated','In process', 'Completed’,'Declined','Cancelled'),

Constraint check\_refundstatus CHECK refundStatus IN ('Initiated','In process', 'Completed’,'Declined','Cancelled'),

CONSTRAINT PK\_RETURNS PRIMARY KEY (returnID),

CONSTRAINT FK\_RETURNS FOREIGN KEY (orderID, serialNumber) REFERENCES ORDERS(orderID) on delete set null, ITEMS(serialNumber) on delete set null

);

**-- REVIEW\_DETAILS**

CREATE TABLE REVIEW\_DETAILS(

custID varchar(10),

description varchar(2000) NOT NULL,

productID varchar(10),

ratings int,

reviewID varchar(10)

CONSTRAINT ratingsLimit CHECK ratings BETWEEN(1, 5),

CONSTRAINT PK\_REVIEW\_DETAILS PRIMARY KEY (reviewID),

CONSTRAINT FK\_REVIEW\_DETAILS FOREIGN KEY (custID, productID) REFERENCES CUSTOMERS(custID) on delete cascade, PRODUCTS(productID) on delete cascade

);

**-- SERVICES**

CREATE TABLE SERVICES(

custID varchar(10),

professionalID varchar(10),

serviceID varchar(10),

bookingID varchar(10),

bookingDate DATE NOT NULL,

completionDate DATE,

CONSTRAINT PK\_SERVICES PRIMARY KEY (bookingID),

CONSTRAINT FK\_SERVICES FOREIGN KEY (custID, professionalID, serviceID) REFERENCES CUSTOMERS(custID) on delete set null, SERVICE\_PROFESSIONALS(professionalID) on delete set null, SERVICES\_TYPES(serviceID) on delete set null

);

**-- SERVICE\_PROFESSIONALS**

CREATE TABLE SERVICE\_PROFESSIONALS(

professionalID varchar(10),

fName varchar(100) NOT NULL,

lName varchar(100) NOT NULL,

contactNo varchar(10),

companyName varchar(100) NOT NULL,

constraint check\_phone\_service\_professionals check (regexp\_like (contactNo, '[0-9]{10}'))

CONSTRAINT PK\_SERVICE\_PROFESSIONALS PRIMARY KEY (professionalID)

);

**-- SERVICE\_TYPES**

CREATE TABLE SERVICE\_TYPES(

serviceID varchar(10),

serviceName varchar(100) NOT NULL,

price float NOT NULL,

CONSTRAINT checkTypes serviceName CHECK IN ('Repair', 'Routine Maintainance', 'Diagnostics’, 'Oiling’, 'Replacement of Parts’, 'Fabrication'),

CONSTRAINT PK\_SERVICE\_TYPES PRIMARY KEY (serviceID)

);

**-- SHIPPING\_METHOD**

CREATE TABLE SHIPPING\_METHOD(

shippingID varchar(10),

shippingPrice float NOT NULL,

shippingType varchar(50) NOT NULL,

CONSTRAINT check\_shippingType CHECK shippingType IN ('Flat Rate', 'Express', 'Truck'),

CONSTRAINT PK\_SHIPPING\_METHOD PRIMARY KEY (shippingID)

);

**-- STORES**

CREATE TABLE STORES(

addressLine1 varchar(100) NOT NULL,

addressLine2 varchar(100),

city varchar(100) NOT NULL,

phoneNo char(10) NOT NULL,

state char(2) NOT NULL,

storeID varchar(10),

zipcode varchar(5) NOT NULL,

Constraint check\_state2 CHECK state IN ('AL','AK','AZ','AR','CA','CO','CT','DE','FL','GA','HI','ID','IL','IN','IA','KS','KY','LA','ME','MD','MA','MI','MN','MS','MO','MT','NE','NV','NH','NJ','NM','NY','NC','ND','OH','OK','OR','PA','RI','SC','SD','TN','TX','UT','VT','VA','WA','WV','WI','WY'),

constraint check\_zip\_stores check (regexp\_like (zipcode, '[0-9]{5}')),

constraint zip\_length check (length(zipcode)=5),

CONSTRAINT PK\_STORES PRIMARY KEY (storeID)

);

**-- STORES\_HOURS**

CREATE TABLE STORES\_HOURS(

dayOfWeek varchar(20),

openTime TIMESTAMP WITH TIME ZONE NOT NULL,

closeTime TIMESTAMP WITH TIME ZONE NOT NULL,

storeID varchar(10),

CONSTRAINT PK\_STORES\_HOURS PRIMARY KEY (dayOfWeek, storeID),

CONSTRAINT FK\_STORES\_HOURS FOREIGN KEY (storeID) REFERENCES STORES(storeID) on delete cascade

);