ER-diagram Assumptions:

People who are using this website have their unique usernames and passwords.

Each salesperson can only work in one store. And each store must have a store manager. Each store must locate in one of the regions that in the system. And each region must have a region manager.

A region manager can manage more than one regions. And a store manager can manage more than one stores.

A customer must be either a business customer or a home customer.

CREATE TABLE Customers(

username varchar(20) NOT NULL,

userpassword varchar(30),

customertype varchar(20),

PRIMARY KEY(username));

INSERT INTO Customers VALUES(

'firstcompany' ,'123123', 'business');

INSERT INTO Customers VALUES(

'secondcompany' ,'122223123', 'business');

INSERT INTO Customers VALUES(

'thirdcompany' ,'333123123', 'business');

INSERT INTO Customers VALUES(

'fourthcompany' ,'444123123', 'business');

INSERT INTO Customers VALUES(

'fifthcompany' ,'555123123', 'business');

INSERT INTO Customers VALUES(

'david' ,'qweqwe123', 'home');

INSERT INTO Customers VALUES(

'britney' ,'qwe123123', 'home');

INSERT INTO Customers VALUES(

'jerry' ,'asd123', 'home');

INSERT INTO Customers VALUES(

'tom' ,'123qwe123', 'home');

INSERT INTO Customers VALUES(

'kitty' ,'zxczxczxc', 'home');

CREATE TABLE BusinessCustomer(

username varchar(20) NOT NULL,

company\_name varchar(30),

phone varchar(20),

email varchar(30),

address varchar(30),

zipcode varchar(10),

company\_income REAL,

business\_category varchar(20),

PRIMARY KEY(username));

INSERT INTO BusinessCustomer VALUES(

'firstcompany' ,'Pitts Tech','8888888888', 'pt@pt.com','1123 Fifth Avenue', '15001',

2000000,'IT');

INSERT INTO BusinessCustomer VALUES(

'secondcompany','Pitts Bank','6666666666','pittsbank@pittsbank',

'123 Forbes Avenue','15000',

5000000,'Financial Service');

INSERT INTO BusinessCustomer VALUES(

'thirdcompany','Just Harvest','1231231234','jh@gmail.com',

'321 Forbes Avenue','15000',

200000,'Health Care');

INSERT INTO BusinessCustomer VALUES(

'forthcompany','Heinzzz','1233211234','zzz@gmail.com',

'3117 Forbes Avenue','15000',

8550000,'Construction');

INSERT INTO BusinessCustomer VALUES(

'fifthcompany','Westin','7223211524','wes@gmail.com',

'2515 Dirthridge Avenue','52134',

10000000,'Oil and Gas Industry');

CREATE TABLE HomeCustomer(

username VARCHAR(20) NOT NULL,

firstname VARCHAR(10),

lastname VARCHAR(10),

marriage\_status VARCHAR(20),

gender VARCHAR(10),

birth\_date DATE,

address VARCHAR(20),

zipcode VARCHAR(10),

phone varchar(20),

email varchar(25),

PRIMARY KEY(username));

INSERT INTO HomeCustomer VALUES(

'david','David','White','married','male', Date(1954-12-01),

'776 Sixth Avenue', '33312','4224224422','david@outlook.com');

INSERT INTO HomeCustomer VALUES(

'britney','Britney','Spierce','unmarried','female',Date(1993-09-01),

'Apt331', '33312','5412654879','david@outlook.com');

INSERT INTO HomeCustomer VALUES(

'jerry','jerry','mice','unmarried','male',Date(1966-03-01),

'Apt124', '15312','2342254879','djeeeee@outlook.com');

INSERT INTO HomeCustomer VALUES(

'tom','tom','cat','unmarried','male',Date(1964-03-22),

'Apt125', '15312','2111154879','tm@outlook.com');

INSERT INTO HomeCustomer VALUES(

'kitty','kitty','hello','unmarried','female',Date(1993-08-26),

'Apt115', '15002','1231231279','kkkk@outlook.com');

CREATE TABLE Products(

productID varchar(10) NOT NULL,

product\_name varchar(10),

inventory\_amount int,

sold\_amount int,

price REAL,

brand varchar(20),

product\_description varchar(100),

PRIMARY KEY(productID)

);

CREATE TABLE administrator(

admin\_name varchar(10) NOT NULL,

admin\_password varchar(30),

PRIMARY KEY(admin\_name)

);

INSERT INTO administrator values('admin','admin');

CREATE TABLE Region(

regionID varchar(10) NOT NULL,

region\_name varchar(20),

region\_manager varchar(10),

PRIMARY KEY(regionID));

INSERT INTO region values(

'r1','regionone','001');

INSERT INTO region values(

'r2','regiontwo','002');

INSERT INTO region values(

'r3','regionthree','003');

CREATE TABLE store(

storeID varchar(10),

address varchar(20),

manager varchar(10),

num\_of\_salespersons int,

region varchar(10),

PRIMARY KEY (storeID),

FOREIGN KEY(region) REFERENCES Region(regionID));

INSERT INTO store values(

's1','4432 Penn Avenue','010',4,'r1');

INSERT INTO store values(

's2','141 Penn Avenue','011',5,'r1');

INSERT INTO store values(

's3','35 Center Avenue','012',10,'r1');

INSERT INTO store values(

's4','88 Murray Avenue','013',8,'r2');

INSERT INTO store values(

's5','388 Forbes Avenue','014',18,'r3');

INSERT INTO store values(

's6','2215 Forbes Avenue','014',7,'r3');

CREATE TABLE Salesperson(

sales\_username varchar(10) NOT NULL,

sales\_password varchar(30),

sales\_name varchar(15),

address varchar(20),

email varchar(20),

job\_title varchar(15),

store\_assigned varchar(10),

salary int,

PRIMARY KEY(sales\_username),

FOREIGN KEY(store\_assigned) REFERENCES Store(storeID)

ON UPDATE CASCADE

ON DELETE SET NULL);

INSERT INTO salesperson values(

'101','test','cindy','4711 Ellsworth Ave','cc@hotmail.com','salesman','s1',2000);

INSERT INTO salesperson values(

'102','test','sandy','4711 Ellsworth Ave','ss@hotmail.com','salesman','s2',2000);

INSERT INTO salesperson values(

'103','test','judy','4711 Ellsworth Ave','jj@hotmail.com','salesman','s4',2000);

INSERT INTO salesperson values(

'104','test','paisley','4711 Ellsworth Ave','pp@hotmail.com','salesman','s2',2000);

INSERT INTO salesperson values(

'105','test','kate','4711 Ellsworth Ave','ka@hotmail.com','region manager','s3',2000);

INSERT INTO salesperson values(

'105','test','kate','4711 Ellsworth Ave','ka@hotmail.com','salesman','s3',2000);

INSERT INTO salesperson values(

'001','test','mary','4711 Ellsworth Ave','ss@hotmail.com','region manager',null,5000);

INSERT INTO salesperson values(

'002','test','alice','4711 Ellsworth Ave','ss@hotmail.com','region manager',null,5000);

INSERT INTO salesperson values(

'003','test','cathy','4711 Ellsworth Ave','cat@hotmail.com','region manager',null,5000);

INSERT INTO salesperson values(

'010','test','carol','4711 Ellsworth Ave','car@hotmail.com','store manager','s1',3200);

INSERT INTO salesperson values(

'011','test','julie','4711 Ellsworth Ave','jj@hotmail.com','store manager','s2',3200);

INSERT INTO salesperson values(

'012','test','sam','4711 Ellsworth Ave','sam@hotmail.com','store manager','s3',3200);

INSERT INTO salesperson values(

'013','test','michael','4711 Ellsworth Ave','mm@hotmail.com','store manager','s4',3200);

INSERT INTO salesperson values(

'014','test','ross','4711 Ellsworth Ave','rr@hotmail.com','store manager','s5',3200);

CREATE TABLE orders(

orderID varchar(10),

customerID varchar(20),

Total\_price real,

PRIMARY KEY(orderID),

FOREIGN KEY(customerID) REFERENCES Customers(username));

CREATE TABLE Transactions(

orderID varchar(10) NOT NULL,

productID varchar(10),

salesperson varchar(10),

quantity int,

customer varchar(20),

PRIMARY KEY(orderID, productID),

FOREIGN KEY(orderID) REFERENCES Orders(orderID)

ON DELETE CASCADE,

FOREIGN KEY(productID) REFERENCES Products(productID)

ON UPDATE CASCADE,

FOREIGN KEY(salesperson) REFERENCES Salesperson(sales\_username)

ON DELETE SET NULL,

FOREIGN KEY(customer) REFERENCES Customers(username)

);

CREATE TABLE shoppingcart(

productID varchar(10) NOT NULL,

product\_name varchar(10),

customerID varchar(20),

quantity int,

price real,

PRIMARY KEY(customerID,productID),

FOREIGN KEY(customerID) REFERENCES customers(username),

FOREIGN KEY(productID) REFERENCES products(productID)

);

CREATE TABLE addressmapping(

Zipcode varchar(20),

Street varchar(20),

City varchar(20),

State varchar(20),

PRIMARY KEY(zipcode));

INSERT INTO addressmapping values('15001','Fifth Avenue','Pittsburgh','PA');

INSERT INTO addressmapping values('15000','Forbes Avenue','Pittsburgh','PA');

INSERT INTO addressmapping values('52134','Dirthridge Avenue','Pittsburgh','PA');

INSERT INTO addressmapping values('33312','Sixth Avenue','New York','NY');

INSERT INTO addressmapping values('15312','Bellefield Avenue','Pittsburgh','PA');

INSERT INTO addressmapping values('15002','Walnut Street','Pittsburgh','PA');