CREATE TABLE customers

(

cust\_id INTEGER(5) NOT NULL AUTO\_INCREMENT,

email VARCHAR(20) NOT NULL,

phone VARCHAR(15) NOT NULL,

dateJoined DATE NOT NULL,

CONSTRAINT pk\_customers PRIMARY KEY (cust\_id)

);

CREATE TABLE zips

(

zipcode INTEGER(5) NOT NULL,

city VARCHAR(15) NOT NULL,

state VARCHAR(15) NOT NULL,

CONSTRAINT pk\_zips PRIMARY KEY (zipcode)

);

CREATE TABLE privates

(

cust\_id INTEGER(5) NOT NULL,

lname VARCHAR(20) NOT NULL,

fname VARCHAR(20) NOT NULL,

address VARCHAR(20) NOT NULL,

zipcode INTEGER(5) NOT NULL,

CONSTRAINT pk\_privates PRIMARY KEY (cust\_id),

CONSTRAINT cust\_priv\_fk FOREIGN KEY (cust\_id) REFERENCES customers (cust\_id),

CONSTRAINT zip\_priv\_fk FOREIGN KEY (zipcode) REFERENCES zips (zipcode),

CONSTRAINT privates\_uk1 UNIQUE (lname, fname, address)

);

CREATE TABLE corporations

(

cust\_id INTEGER(5) NOT NULL,

corp\_name VARCHAR(20) NOT NULL,

CONSTRAINT pk\_corp PRIMARY KEY (cust\_id),

CONSTRAINT corp\_customer\_fk

FOREIGN KEY (cust\_id)

REFERENCES customers (cust\_id),

CONSTRAINT corp\_uk1 UNIQUE (corp\_name)

);

CREATE TABLE addresses

(

cust\_id INTEGER(5) NOT NULL,

address VARCHAR(20) NOT NULL,

zipcode INTEGER(5) NOT NULL,

type ENUM('mailing', 'billing', 'vehiclePickUp', 'vehicleDelivery'),

CONSTRAINT pk\_addresses PRIMARY KEY (cust\_id, address),

CONSTRAINT zip\_add\_fk FOREIGN KEY (zipcode ) REFERENCES zips (zipcode),

CONSTRAINT corp\_add\_fk FOREIGN KEY (cust\_id) REFERENCES corporations (cust\_id)

);

CREATE TABLE prospectives

(

cust\_id INTEGER(5) NOT NULL,

isDead ENUM('dead','alive') NOT NULL,

CONSTRAINT pk\_prosp PRIMARY KEY (cust\_id),

CONSTRAINT cust\_prosp\_fk FOREIGN KEY (cust\_id) REFERENCES customers (cust\_id)

);

CREATE TABLE contacts

(

cust\_id INTEGER(5) NOT NULL,

dateContacted DATE NOT NULL,

method ENUM ('phone', 'email'),

CONSTRAINT pk\_contacts PRIMARY KEY (cust\_id, dateContacted),

CONSTRAINT prosp\_contacts\_fk FOREIGN KEY (cust\_id) REFERENCES prospectives (cust\_id)

);

CREATE TABLE nonprospectives

(

cust\_id INTEGER(5) NOT NULL,

numRewards INTEGER(3) NOT NULL,

CONSTRAINT pk\_nonprosp PRIMARY KEY (cust\_id),

CONSTRAINT cust\_nonprosp\_fk FOREIGN KEY (cust\_id) REFERENCES customers (cust\_id)

);

CREATE TABLE steadys

(

cust\_id INTEGER(5) NOT NULL,

loyaltyBal INTEGER(3) NOT NULL,

CONSTRAINT pk\_steadys PRIMARY KEY (cust\_id),

CONSTRAINT nonprosp\_steadys\_fk FOREIGN KEY (cust\_id) REFERENCES nonprospectives (cust\_id)

);

CREATE TABLE premiers

(

cust\_id INTEGER(5) NOT NULL,

hadAccident enum('yes','no') NOT NULL,

CONSTRAINT pk\_premiers PRIMARY KEY (cust\_id),

CONSTRAINT nonprosp\_premiers\_fk FOREIGN KEY (cust\_id) REFERENCES nonprospectives (cust\_id)

);

CREATE TABLE referrals

(

referral\_id INTEGER(5) NOT NULL AUTO\_INCREMENT,

nonprosp\_id INTEGER(5) NOT NULL,

prosp\_id INTEGER(5) NOT NULL,

date DATE NOT NULL,

type ENUM('$50Off', 'FreeOilChange'),

CONSTRAINT pk\_referral PRIMARY KEY (referral\_id),

CONSTRAINT referral\_prosp\_fk FOREIGN KEY (prosp\_id) REFERENCES prospectives (cust\_id),

CONSTRAINT referral\_nonprosp\_fk FOREIGN KEY (nonprosp\_id) REFERENCES nonprospectives (cust\_id),

CONSTRAINT referral\_uk1 UNIQUE (nonprosp\_id, prosp\_id, date)

);

CREATE TABLE vehicleMakeModels

(

vmm\_id INTEGER(5) NOT NULL AUTO\_INCREMENT,

manufacturer VARCHAR(20) NOT NULL,

model VARCHAR(20) NOT NULL,

baseRate DECIMAL(6,2) NOT NULL,

CONSTRAINT pk\_vmm PRIMARY KEY (vmm\_id),

CONSTRAINT vmm\_uk1 UNIQUE (manufacturer, model, baseRate)

);

CREATE TABLE maintenanceIntervals

(

vmm\_id INTEGER(5) NOT NULL,

mileageInterval INTEGER(6) NOT NULL,

CONSTRAINT pk\_maintInt PRIMARY KEY (vmm\_id, mileageInterval),

CONSTRAINT vmm\_maintInt\_fk

FOREIGN KEY (vmm\_id)

REFERENCES vehicleMakeModels (vmm\_id)

);

CREATE TABLE vehicles

(

cust\_id INTEGER(5) NOT NULL,

vmm\_id INTEGER(5) NOT NULL,

color VARCHAR(10) NOT NULL,

VIN VARCHAR(20) NOT NULL,

estYrMileage INTEGER(6) NOT NULL,

CONSTRAINT pk\_vehicles PRIMARY KEY (VIN),

CONSTRAINT cust\_vehicles\_fk FOREIGN KEY (cust\_id) REFERENCES customers (cust\_id),

CONSTRAINT vmm\_vehicles\_fk FOREIGN KEY (vmm\_id) REFERENCES vehicleMakeModels (vmm\_id)

);

CREATE TABLE MonthlyInstallments

(

monthly\_install\_id INTEGER(5) NOT NULL AUTO\_INCREMENT,

vmm\_id INTEGER(5) NOT NULL,

mileageInterval INTEGER(6) NOT NULL,

VIN VARCHAR(20) NOT NULL,

cust\_id INTEGER(5) NOT NULL,

month VARCHAR(10) NOT NULL,

year INTEGER(5) NOT NULL,

CONSTRAINT pk\_monthlyinstall PRIMARY KEY (Monthly\_install\_id),

CONSTRAINT monthly\_intervals\_fk

FOREIGN KEY (vmm\_id,mileageInterval)

REFERENCES maintenanceIntervals(vmm\_id,mileageInterval),

CONSTRAINT monthly\_vehicles\_fk

FOREIGN KEY (VIN)

REFERENCES vehicles(VIN),

CONSTRAINT monthly\_premier\_fk

FOREIGN KEY (cust\_id)

REFERENCES premiers(cust\_id),

CONSTRAINT monthly\_uk01 UNIQUE(VIN,month,year)

);

CREATE TABLE employees

(

employ\_id INTEGER(5) NOT NULL AUTO\_INCREMENT,

employ\_fname VARCHAR(20) NOT NULL,

employ\_lname VARCHAR(20) NOT NULL,

phone VARCHAR(15) NOT NULL,

salary INTEGER(5) NOT NULL,

CONSTRAINT pk\_employees PRIMARY KEY (employ\_id)

);

CREATE TABLE serviceTechnicians

(

employ\_id INTEGER(5) NOT NULL,

CONSTRAINT pk\_servTech PRIMARY KEY (employ\_id),

CONSTRAINT emp\_servTech\_fk FOREIGN KEY (employ\_id) REFERENCES employees (employ\_id)

);

CREATE TABLE mechanics

(

employ\_id INTEGER(5) NOT NULL,

CONSTRAINT pk\_mechanics PRIMARY KEY (employ\_id),

CONSTRAINT cust\_mech\_fk FOREIGN KEY (employ\_id) REFERENCES employees (employ\_id)

);

CREATE TABLE visitOrders

(

employ\_id INTEGER(5) NOT NULL,

logTime DATETIME NOT NULL,

VIN VARCHAR(20) NOT NULL,

mileage INTEGER(6) NOT NULL,

CONSTRAINT pk\_visitOrders PRIMARY KEY (VIN, logTime),

CONSTRAINT vehicle\_visitOrders\_fk FOREIGN KEY (VIN) REFERENCES vehicles (VIN),

CONSTRAINT servTech\_visitOrders\_fk FOREIGN KEY (employ\_id) REFERENCES serviceTechnicians (employ\_id)

);

CREATE TABLE certifications

(

certName VARCHAR(70) NOT NULL,

CONSTRAINT pk\_certifications PRIMARY KEY (certName)

);

CREATE TABLE certificateGranted

(

certName VARCHAR(70) NOT NULL,

year INTEGER(5) NOT NULL,

employ\_id INTEGER(5) NOT NULL,

CONSTRAINT pk\_certificateGranted PRIMARY KEY (employ\_id, certName),

CONSTRAINT mech\_grant\_fk FOREIGN KEY (employ\_id) REFERENCES mechanics (employ\_id),

CONSTRAINT cert\_grant\_fk FOREIGN KEY (certName) REFERENCES certifications (certName)

);

CREATE TABLE mentorRelationships

(

mentor\_id INTEGER(5) NOT NULL,

mentee\_id INTEGER(5) NOT NULL,

certName VARCHAR(70) NOT NULL,

endDate DATE,

startDate DATE NOT NULL,

CONSTRAINT pk\_mentorRelationships PRIMARY KEY (mentor\_id, mentee\_id, certName, startDate),

CONSTRAINT mentor\_rela\_fk FOREIGN KEY (mentor\_id, certName) REFERENCES certificateGranted (employ\_id, certName),

CONSTRAINT mentee\_rela\_fk FOREIGN KEY (mentee\_id) REFERENCES mechanics (employ\_id)

);

CREATE TABLE skills

(

skillName VARCHAR(20) NOT NULL,

CONSTRAINT pk\_skills PRIMARY KEY (skillName )

);

CREATE TABLE employee\_skill

(

skillName VARCHAR(20) NOT NULL,

employ\_id INTEGER(5) NOT NULL,

CONSTRAINT pk\_employee\_skill PRIMARY KEY (employ\_id, skillName ),

CONSTRAINT emp\_skillgranted\_fk FOREIGN KEY (employ\_id) REFERENCES employees (employ\_id),

CONSTRAINT skill\_skillgranted\_fk FOREIGN KEY (skillName) REFERENCES skills(skillName )

);

CREATE TABLE suppliers

(

suppName VARCHAR(20) NOT NULL,

CONSTRAINT pk\_suppliers PRIMARY KEY (suppName )

);

CREATE TABLE parts

(

suppName VARCHAR(20) NOT NULL,

partName VARCHAR(20) NOT NULL,

price DECIMAL(6,2) NOT NULL,

CONSTRAINT pk\_parts PRIMARY KEY (suppName, partName),

CONSTRAINT supp\_part\_fk FOREIGN KEY (suppName) REFERENCES suppliers (suppName)

);

CREATE TABLE davesOrders

(

logTime DATETIME NOT NULL,

CONSTRAINT pk\_davesOrders PRIMARY KEY (logTime)

);

CREATE TABLE orderlines

(

logTime DATETIME NOT NULL,

suppName VARCHAR(20) NOT NULL,

partName VARCHAR(20) NOT NULL,

quantity INTEGER(6) NOT NULL,

CONSTRAINT pk\_orderlines PRIMARY KEY (suppName, partName, logTime),

CONSTRAINT parts\_orderlines\_fk FOREIGN KEY (suppName, partName) REFERENCES parts (suppName, partName),

CONSTRAINT daves\_orderlines\_fk FOREIGN KEY (logTime) REFERENCES davesOrders (logTime)

);

CREATE TABLE serviceItems

(

name VARCHAR(20) NOT NULL,

CONSTRAINT pk\_serviceItems PRIMARY KEY (name)

);

CREATE TABLE maintenance\_items

(

name VARCHAR(20) NOT NULL,

laborHours INTEGER(3) NOT NULL,

laborMarkUp DECIMAL (6,2) NOT NULL,

CONSTRAINT pk\_maintenance\_items PRIMARY KEY (name),

CONSTRAINT service\_maintItem\_fk FOREIGN KEY (name)

REFERENCES serviceItems (name)

);

CREATE TABLE itemSkills

(

skillName VARCHAR(20) NOT NULL,

name VARCHAR(20) NOT NULL,

CONSTRAINT pk\_itemSkills PRIMARY KEY (name, skillName),

CONSTRAINT skill\_itemSkill\_fk FOREIGN KEY (skillName) REFERENCES skills (skillName),

CONSTRAINT maintItem\_itemSkills\_fk FOREIGN KEY (name) REFERENCES maintenance\_items (name)

);

CREATE TABLE maintenance\_parts

(

suppName VARCHAR(20) NOT NULL,

partName VARCHAR(20) NOT NULL,

name VARCHAR(20) NOT NULL,

quantity INTEGER(5) NOT NULL,

CONSTRAINT pk\_maintenance\_parts PRIMARY KEY (name, suppName, partName),

CONSTRAINT part\_maintPart\_fk FOREIGN KEY (suppName, partName) REFERENCES parts (suppName, partName),

CONSTRAINT maintItem\_maintPart\_fk FOREIGN KEY (name) REFERENCES maintenance\_items (name)

);

CREATE TABLE packages

(

name VARCHAR(20) NOT NULL,

CONSTRAINT pk\_packages PRIMARY KEY (name),

CONSTRAINT serviceItems\_packages\_fk FOREIGN KEY (name) REFERENCES serviceItems (name)

);

CREATE TABLE packagecomps

(

maintenance\_name VARCHAR(20) NOT NULL,

package\_name VARCHAR(20) NOT NULL,

quantity INTEGER(5) NOT NULL,

CONSTRAINT pk\_packagecomps PRIMARY KEY (maintenance\_name, package\_name),

CONSTRAINT packages\_packComp\_fk FOREIGN KEY (package\_name)

REFERENCES packages (name),

CONSTRAINT maintItems\_packComp\_fk FOREIGN KEY (maintenance\_name)

REFERENCES maintenance\_items (name)

);

CREATE TABLE servicelineitems

(

employ\_id INTEGER(5) NOT NULL,

logTime DATETIME NOT NULL,

VIN VARCHAR(20) NOT NULL,

servName VARCHAR(20) NOT NULL,

loyaltyPointUsed INTEGER(5) NOT NULL,

discount DECIMAL(6,2) NOT NULL,

CONSTRAINT pk\_servicelineitems PRIMARY KEY (servName, VIN, logTime),

CONSTRAINT servItem\_servLine\_fk FOREIGN KEY (servName) REFERENCES serviceItems (name),

CONSTRAINT visitOrders\_servLine\_fk FOREIGN KEY (VIN, logTime) REFERENCES visitOrders (VIN, logTime),

CONSTRAINT mech\_serviceline\_fk FOREIGN KEY (employ\_id )

REFERENCES mechanics (employ\_id )

);

CREATE TABLE intervalServices

(

vmm\_id INTEGER(5) NOT NULL,

mileageInterval INTEGER(6) NOT NULL,

maintItemName VARCHAR(20) NOT NULL,

CONSTRAINT pk\_intervalServices PRIMARY KEY (vmm\_id, mileageInterval, maintItemName),

CONSTRAINT maintInt\_intServ\_fk FOREIGN KEY (vmm\_id, mileageInterval) REFERENCES maintenanceIntervals (vmm\_id, mileageInterval),

CONSTRAINT maintItem\_intServ\_fk FOREIGN KEY (maintItemName) REFERENCES maintenance\_items (name)

);