

-- Section 1: Create Tables

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CREATE TABLE CUSTOMERS (  
    cusID          INTEGER          NOT NULL,  
    Name           VARCHAR(20)      NOT NULL,  
    PHONE          VARCHAR(12)      NOT NULL,  
    email          VARCHAR(40)      NOT NULL,  
    years          INTEGER          NOT NULL,  
    CONSTRAINT pk_customers PRIMARY KEY (cusID)  
);  
  
CREATE TABLE VEHICLE(  
    cusID          INTEGER          NOT NULL,  
    VIN            INTEGER          NOT NULL,  
    make           VARCHAR(10)      NOT NULL,  
    model          VARCHAR(10)      NOT NULL,  
    modYear        INTEGER          NOT NULL,  
    mileage        INTEGER          NOT NULL,  
    serviceInterval INTEGER NOT NULL,  
    CONSTRAINT pk_vehicle PRIMARY KEY (VIN)  
);  
  
CREATE TABLE EXISTINGCUSTOMER(  
    cusID          INTEGER          NOT NULL,  
    dateVisit      DATE             NOT NULL,  
    timeVisit      TIME             NOT NULL,  
    CONSTRAINT pk_existingCustomer PRIMARY KEY (cusID)  
);  
  
CREATE TABLE PROSPECTIVE (  
    cusID          INTEGER          NOT NULL,  
    status         VARCHAR(20)      ,  
    CONSTRAINT pk_prospective PRIMARY KEY (cusID)  
);  
  
CREATE TABLE SPECIAL (  
    specialItem     VARCHAR(20)      NOT NULL,  
    EXPIRATIONDATE  DATE             NOT NULL,  
    CONSTRAINT pk_special PRIMARY KEY (specialItem, EXPIRATIONDATE)  
);  
  
CREATE TABLE SPECIALINSTANCE(  
    cusID           INTEGER          NOT NULL,  
    lastDateContacted DATE          NOT NULL,  
    specialItem      VARCHAR(20)      NOT NULL,  
    EXPIRATIONDATE   DATE            NOT NULL,  
    CONSTRAINT pk_specialInstance PRIMARY KEY (cusID,specialItem,  
    EXPIRATIONDATE)  
);  
  
CREATE TABLE STEADY (  
    cusID           INTEGER          NOT NULL,  
    visitFreq       VARCHAR(10)      NOT NULL,  
    loyalpoint       INTEGER          ,  
    CONSTRAINT pk_steady PRIMARY KEY (cusID)  
);  
  
CREATE TABLE PREMIER (  

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        cusID          INTEGER      NOT NULL,
        annualFee      DOUBLE        NOT NULL,
        CONSTRAINT pk_premeir PRIMARY KEY (cusID)
);

CREATE TABLE CORPORATION (
        cusID          INTEGER      NOT NULL,
        CONSTRAINT pk_CORPORATION PRIMARY KEY (cusID)
);

CREATE TABLE ADDRESS (
        cusID          INTEGER      NOT NULL,
        address        VARCHAR(40)  NOT NULL,
        typeofAdd      VARCHAR(20)  NOT NULL,
        CONSTRAINT PK_address PRIMARY KEY (CUSID, ADDRESS)
);

CREATE TABLE INDIVIDUAL (
        cusID          INTEGER      NOT NULL,
        mailingAdd     VARCHAR(40)  NOT NULL,
        CONSTRAINT pk_individual PRIMARY KEY (cusID)
);

CREATE TABLE APPOINTMENT (
        dateSche      DATE          NOT NULL,
        vin           INTEGER      NOT NULL,
        CONSTRAINT pk_appointment PRIMARY KEY (vin, dateSche)
);

CREATE TABLE EMPLOYEE (
        empID         INTEGER      NOT NULL,
        FName         VARCHAR(20)  NOT NULL,
        lname         VARCHAR(20)  NOT NULL,
        PHONE         VARCHAR(12)  NOT NULL,
        email         VARCHAR(40)  NOT NULL,
        address       VARCHAR(40)  NOT NULL,
        dateHire      DATE          NOT NULL,
        dateEnd       DATE          ,
        CONSTRAINT pk_employee PRIMARY KEY (empID, fname, lname)
);

CREATE TABLE TECHNICIAN (
        empID         INTEGER      NOT NULL,
        FName         VARCHAR(20)  NOT NULL,
        lname         VARCHAR(20)  NOT NULL,
        status        VARCHAR(10)  ,
        CONSTRAINT pk_technician PRIMARY KEY (EMPID)
);

CREATE TABLE ORDERS (
        empID         INTEGER      NOT NULL,
        orderID       INTEGER      NOT NULL,
        VIN           INTEGER      NOT NULL,

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        orderDate    DATE                NOT NULL,
        numOfRepairItems INTEGER NOT NULL,
        CONSTRAINT pk_orders PRIMARY KEY (ORDERID)
    );

CREATE TABLE NOTIFICATION(
    cusID            INTEGER              NOT NULL,
    VIN              INTEGER              NOT NULL,
    dateSent         DATE                 NOT NULL,
    CONSTRAINT pk_notification PRIMARY KEY (cusID, VIN, dateSent)
);

CREATE TABLE MAINTENANCEPACK (
    packageID        INTEGER              NOT NULL,
    packageName      VARCHAR(20)          NOT NULL,
    numOfItems       INTEGER              NOT NULL,
    make             VARCHAR(10)          NOT NULL,
    model            VARCHAR(10)          NOT NULL,
    mileage          INTEGER              NOT NULL,
    CONSTRAINT PK_MAINTNENCEPACK PRIMARY KEY (packageID)
);

CREATE TABLE ORDERLINE(
    packageID        INTEGER              NOT NULL,
    orderID          INTEGER              NOT NULL,
    numRepItem       INTEGER              NOT NULL,
    AssignTo         INTEGER              NOT NULL
);

CREATE TABLE REPAIRITEMS (
    namItem          VARCHAR(15)          NOT NULL,
    manufacture      VARCHAR(20)          ,
    CONSTRAINT pk_repairItems PRIMARY KEY (namItem)
);

CREATE TABLE MECHANIC (
    empID            INTEGER              NOT NULL,
    FName            VARCHAR(20)          NOT NULL,
    lname            VARCHAR(20)          NOT NULL,
    CONSTRAINT pk_mechanic PRIMARY KEY (empID)
);

CREATE TABLE MENTORSHIP (
    menteeID         INTEGER              NOT NULL,
    mentorID          INTEGER              NOT NULL,
    startDate         DATE                 NOT NULL,
    endDate           DATE                 NOT NULL,
    skillMent         VARCHAR(20)          NOT NULL,
    CONSTRAINT pk_mentorship PRIMARY KEY (menteeID, MentorID)
);

CREATE TABLE SKILL (
    skillID          INTEGER              NOT NULL,

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        skillName    VARCHAR(30)        NOT NULL,
        CONSTRAINT   pk_skill    PRIMARY KEY (skillID)
    );

CREATE TABLE SKILLMECHANIC (
    empID            INTEGER              NOT NULL,
    skillID          INTEGER              NOT NULL,
    dateLearn        DATE                  ,
    CONSTRAINT        pk_skillMechanic    PRIMARY KEY (empID, skillID)
);

CREATE TABLE SKILLREPAIR (
    skillID          INTEGER              NOT NULL,
    namItem          VARCHAR(15)          NOT NULL,
    CONSTRAINT        pk_skillRepair     PRIMARY KEY (skillID, namItem)
);

CREATE TABLE CERTIFICATION (
    empID            INTEGER              NOT NULL,
    dateReceived     DATE                  NOT NULL,
    expireDate       DATE                  NOT NULL,
    CONSTRAINT        pk_CERTIFICATION   PRIMARY KEY (empID, dateReceived)
);

CREATE TABLE REPAIRINSTANCE(
    price            DOUBLE                NOT NULL,
    namItem          VARCHAR(15)          NOT NULL,
    packageID        INTEGER              NOT NULL
);

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-- Section 2: Alter Tables' Constrains

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ALTER TABLE VEHICLE
add CONSTRAINT veh_cus_fk FOREIGN KEY (cusID )REFERENCES CUSTOMERS (cusID);
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ALTER TABLE EXISTINGCUSTOMER
add CONSTRAINT excus_cus_fk  FOREIGN KEY (cusID) REFERENCES CUSTOMERS
(cusID);
```

```
ALTER TABLE PROSPECTIVE
add CONSTRAINT prosp_cus_fk  FOREIGN KEY (cusID) REFERENCES CUSTOMERS
(cusID);
```

```
ALTER TABLE SPECIALINSTANCE
add CONSTRAINT special_SI_fk FOREIGN KEY (specialItem, EXPIRATIONDATE)
      REFERENCES SPECIAL (specialItem, EXPIRATIONDATE);
```

```
ALTER TABLE STEADY
add CONSTRAINT steady_ecus_fk  FOREIGN KEY (cusID) REFERENCES
EXISTINGCUSTOMER (cusID);
```

```
ALTER TABLE PREMIER
add CONSTRAINT premier_ecus_fk  FOREIGN KEY (cusID) REFERENCES
EXISTINGCUSTOMER (cusID);
```

```
ALTER TABLE CORPORATION
add CONSTRAINT corp_cus_fk  FOREIGN KEY (cusID) REFERENCES CUSTOMERS (cusID);
```

```
ALTER TABLE INDIVIDUAL
add CONSTRAINT indi_cus_fk  FOREIGN KEY (cusID) REFERENCES CUSTOMERS (cusID);
```

```
ALTER TABLE TECHNICIAN
add CONSTRAINT tech_emp_fk FOREIGN KEY (EMPID,FNAME,LNAME) REFERENCES
EMPLOYEE (EMPID,FNAME,LNAME);
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```
ALTER TABLE ORDERS
add CONSTRAINT orders_tech_fk FOREIGN KEY(empID) REFERENCES TECHNICIAN
(empID);
```

```
ALTER TABLE ORDERLINE
add CONSTRAINT oLine_repair_fk FOREIGN KEY (packageID) REFERENCES
MAINTENANCEPACK (packageID);
```

```
ALTER TABLE MECHANIC
add CONSTRAINT mech_emp_fk FOREIGN KEY (EMPID,FNAME,LNAME) REFERENCES
EMPLOYEE (EMPID,FNAME,LNAME);
```

```
ALTER TABLE SKILLREPAIR
add CONSTRAINT skillrep_repair_fk FOREIGN KEY (namItem) REFERENCES
REPAIRITEMS (namItem);
ALTER TABLE SKILLREPAIR
add CONSTRAINT skillrep_skill_fk  FOREIGN KEY (skillID) REFERENCES SKILL
(skillID);
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ALTER TABLE REPAIRINSTANCE
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add CONSTRAINT repInst_repItem_fk FOREIGN KEY (namItem) REFERENCES
REPAIRITEMS (namItem);

ALTER TABLE REPAIRINSTANCE
add CONSTRAINT repInst_maintenance_fk FOREIGN KEY (packageID) REFERENCES
MAINTENANCEPACK (packageID);

ALTER TABLE APPOINTMENT
add CONSTRAINT app_vehicle_fk FOREIGN KEY (vin) REFERENCES VEHICLE (vin);

ALTER TABLE NOTIFICATION
add CONSTRAINT not_steady_fk FOREIGN KEY (CUSID) REFERENCES STEADY (CUSID);

ALTER TABLE MENTORSHIP
add CONSTRAINT ment_mech_fk FOREIGN KEY (menteeID) REFERENCES MECHANIC
(empID);
ALTER TABLE MENTORSHIP
add CONSTRAINT ment1_mech_fk FOREIGN KEY (mentorID) REFERENCES MECHANIC
(empID);

ALTER TABLE SKILLMECHANIC
add CONSTRAINT skillmech_skill_fk FOREIGN KEY (skillID) REFERENCES SKILL
(skillID);
ALTER TABLE SKILLMECHANIC
add CONSTRAINT skillmech_mech_fk FOREIGN KEY (empID) REFERENCES MECHANIC
(empID);

ALTER TABLE CERTIFICATION
add CONSTRAINT cert_mech_fk FOREIGN KEY (empID) REFERENCES MECHANIC
(empID);

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