

USE BUDT703_Project_0502_12

```
DROP TABLE IF EXISTS [Terps.Receive];
DROP TABLE IF EXISTS [Terps.Provide];
DROP TABLE IF EXISTS [Terps.Dealer];
DROP TABLE IF EXISTS [Terps.SalesStatement];
DROP TABLE IF EXISTS [Terps.Service];
DROP TABLE IF EXISTS [Terps.Mechanic];
DROP TABLE IF EXISTS [Terps.Car];
DROP TABLE IF EXISTS [Terps.Customer];
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DROP VIEW IF EXISTS [SalesStatement of all cars];
DROP VIEW IF EXISTS [Customers in College Park];
DROP VIEW IF EXISTS [Latest_Cars];
DROP VIEW IF EXISTS [Services_Provided];
DROP VIEW IF EXISTS [Costly_Services];
DROP VIEW IF EXISTS [Car_Services];
DROP VIEW IF EXISTS [Multiple_Cars];
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CREATE TABLE [Terps.Customer] (
    custId CHAR (10) NOT NULL,
    custFirstName VARCHAR (25),
    custLastName VARCHAR (20),
    custPhone CHAR (20),
    custAddress VARCHAR (50),
    CONSTRAINT pk_Customer_custId PRIMARY KEY (custId))
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CREATE TABLE [Terps.Car] (
    carId CHAR (10) NOT NULL,
    carSerial VARCHAR (9),
    carModel VARCHAR (25),
    carColour VARCHAR (25),
    carManufactureYear CHAR (4),
    custId CHAR (10),
    carPrice DECIMAL (10,2),
    CONSTRAINT pk_Car_carId PRIMARY KEY (carId),
    CONSTRAINT fk_Car_custId FOREIGN KEY (custId)
        REFERENCES [Terps.Customer] (custId)
        ON DELETE SET NULL ON UPDATE CASCADE)
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CREATE TABLE [Terps.Mechanic] (
    mecId CHAR (10) NOT NULL,
    mecFirstName VARCHAR (20),
    mecLastName VARCHAR (20),
    mecPhone CHAR (20),
    mecAddress VARCHAR (50),
    CONSTRAINT pk_Mechanic_mecId PRIMARY KEY (mecId))
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CREATE TABLE [Terps.Service] (
    serId CHAR (10) NOT NULL,
    serDescription VARCHAR (40),
    serPrice DECIMAL (10,2),
    CONSTRAINT pk_Service_mecId PRIMARY KEY (serId))
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CREATE TABLE [Terps.SalesStatement] (
    salStatementId CHAR (10) NOT NULL,
    salStatementIDate DATE,
    CONSTRAINT pk_SalesStatement_mecId PRIMARY KEY (salStatementId))
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CREATE TABLE [Terps.Dealer] (
    dlrId CHAR (10) NOT NULL,
    dlrFirstName VARCHAR (20),
    dlrLastName VARCHAR (20),
    dlrExperienceYears CHAR (2),
    salStatementId CHAR (10),
    CONSTRAINT pk_Dealer_dlrId PRIMARY KEY (dlrId),
    CONSTRAINT fk_Dealer_salStatementId FOREIGN KEY (salStatementId)
        REFERENCES [Terps.SalesStatement] (salStatementId)
        ON DELETE NO ACTION ON UPDATE CASCADE)

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CREATE TABLE [Terps.Provide] (
    carId CHAR (10) NOT NULL,
    serId CHAR (10) NOT NULL,
    mecId CHAR (10),
    CONSTRAINT pk_Provide_carId_serId PRIMARY KEY (carId,serId),
    CONSTRAINT fk_Provide_carId FOREIGN KEY (carId)
        REFERENCES [Terps.Car] (carId)
        ON DELETE NO ACTION ON UPDATE CASCADE,
    CONSTRAINT fk_Provide_serId FOREIGN KEY (serId)
        REFERENCES [Terps.Service] (serId)
        ON DELETE NO ACTION ON UPDATE CASCADE,
    CONSTRAINT fk_Provide_mecId FOREIGN KEY (mecId)
        REFERENCES [Terps.Mechanic] (mecId)
        ON DELETE NO ACTION ON UPDATE CASCADE)

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CREATE TABLE [Terps.Receive] (
    salStatementId CHAR (10) NOT NULL,
    custId CHAR (10),
    carId CHAR (10),
    CONSTRAINT pk_Receive_salStatementId PRIMARY KEY (salStatementId),
    CONSTRAINT fk_Receive_salStatementId FOREIGN KEY (salStatementId)
        REFERENCES [Terps.SalesStatement] (salStatementId)
        ON DELETE NO ACTION ON UPDATE CASCADE,
    CONSTRAINT fk_Receive_custId FOREIGN KEY (custId)
        REFERENCES [Terps.Customer] (custId)
        ON DELETE NO ACTION ON UPDATE CASCADE,
    CONSTRAINT fk_Receive_carId FOREIGN KEY (carId)
        REFERENCES [Terps.Car] (carId)
        ON DELETE NO ACTION ON UPDATE NO ACTION)

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INSERT INTO [Terps.Service] VALUES ('142346', 'Car Wash', 200.00)
INSERT INTO [Terps.Service] VALUES ('147845', 'Spark Plug Replacement', 400.00)
INSERT INTO [Terps.Service] VALUES ('142245', 'Tire Replacement', 300.00)
INSERT INTO [Terps.Service] VALUES ('144446', 'Oil Change', 75.00)
INSERT INTO [Terps.Service] VALUES ('142342', 'Brake pad replacement', 300.00)
INSERT INTO [Terps.Service] VALUES ('147869', 'Battery replacement', 200.00)
INSERT INTO [Terps.Service] VALUES ('142996', 'Wiper replacement', 45.00)

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INSERT INTO [Terps.Customer] VALUES ('119090', 'John', 'Fernandes', '2407859691',
'5660 Apt 12 Hyattsville MD 20783')
INSERT INTO [Terps.Customer] VALUES ('119089', 'Ramya', 'Thakkar', '2407859691',
'48 Ave Apt 602 Hyattsville MD 20783')
INSERT INTO [Terps.Customer] VALUES ('119081', 'Karan', 'Gupta', '2409859691',
'5990 pt 602 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('119099', 'Kartik', 'Shah', '2407859691',
'7890 Ave Apt 602 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('119087', 'Ramani', 'Verma', '2407859341',

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'488 Ave Apt 304 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('119070', 'Tareek', 'Joshi', '2234783341',
'890 Ave Apt 911 Green Belt MD 20737')
INSERT INTO [Terps.Customer] VALUES ('119082', 'Ramya', 'Shah', '2234859341', '908
Ave Apt 441 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('111178', 'Tanya', 'Dengre', '2234890341',
'984 Ave Apt 811 Baltimore MD 20640')
INSERT INTO [Terps.Customer] VALUES ('112278', 'Sanya', 'Singh', '2299990341',
'8489 Ave Apt 821 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('118090', 'Ron', 'Fernandes', '2489899691',
'5645 Apt 19 Hyattsville MD 20783')
INSERT INTO [Terps.Customer] VALUES ('118190', 'Harry', 'Shah', '2489899999', '8125
Apt 20 College Park MD 20740')
INSERT INTO [Terps.Customer] VALUES ('118290', 'Ronak', 'Gupta', '2489669682',
'8976 Apt 19 Green Belt MD 20737')

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INSERT INTO [Terps.Car] VALUES ('129068', 'SD 1098', 'Nissan Versa Note S',
'Maroon', '2018', '119090', 16485.00)
INSERT INTO [Terps.Car] VALUES ('129067', 'MD 2267', 'Audi A3', 'Blue', '2020',
'119089', 32341.00)
INSERT INTO [Terps.Car] VALUES ('129070', 'GD 2287', 'Audi A3', 'Black', '2020',
'118290', 32341.00)
INSERT INTO [Terps.Car] VALUES ('128067', 'MD 3267', 'Nissan Versa Note S', 'Blue',
'2018', '119089', 16485.00)
INSERT INTO [Terps.Car] VALUES ('129058', 'DD 3345', 'Audi A3', 'Black', '2020',
'112278', 35895.00)
INSERT INTO [Terps.Car] VALUES ('129064', 'MD 3395', 'Audi Q8', 'Black', '2022',
'119081', 38995.00)
INSERT INTO [Terps.Car] VALUES ('129034', 'MD 3305', 'Audi Q8', 'Black', '2022',
'119087', 38995.00)
INSERT INTO [Terps.Car] VALUES ('122224', 'MD 3375', 'Mercedes', 'Black', '2021',
'111178', 34488.00)
INSERT INTO [Terps.Car] VALUES ('123324', 'MD 3355', 'Mercedes', 'Red', '2020',
'112278', 32467.00)
INSERT INTO [Terps.Car] VALUES ('129090', 'VA 1099', 'Ferrari', 'Red', '2021',
'118090', 40578.00)
INSERT INTO [Terps.Car] VALUES ('128088', 'NY 1000', 'Land Rover', 'White', '2019',
'118190', 37896.00)
INSERT INTO [Terps.Car] VALUES ('127070', 'MD 9999', 'Land Rover', 'Black', '2022',
'118290', 40987.00)

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INSERT INTO [Terps.Mechanic] VALUES ('132891', 'Peter', 'Williams', '2407890789',
'67 Apt 107 Berwyn MD 20724')
INSERT INTO [Terps.Mechanic] VALUES ('133890', 'Parti', 'Rawat', '2407887578', '198
Ave Apt 1007 College Park MD 20740')
INSERT INTO [Terps.Mechanic] VALUES ('133395', 'Raman', 'Verma', '2407459679', '167
Ave Apt 203 College Park MD 20740')
INSERT INTO [Terps.Mechanic] VALUES ('132823', 'Rohan', 'Singh', '2407567678', '789
Ave Apt 211 Green Belt MD 20737')
INSERT INTO [Terps.Mechanic] VALUES ('139995', 'Vineet', 'Verma', '2490767677',
'6789 Ave Apt 011 College Park MD 20740')
INSERT INTO [Terps.Mechanic] VALUES ('132794', 'Shaan', 'Joshi', '2407890009', '69
Apt 110 Berwyn MD 20724')
INSERT INTO [Terps.Mechanic] VALUES ('133792', 'Sherry', 'Patni', '2400090789', '70
Apt 112 Green Belt MD 20737')
INSERT INTO [Terps.Mechanic] VALUES ('134793', 'Vikram', 'Thakkar', '2406660789',
'69 Apt 114 College Park MD 20740')

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INSERT INTO [Terps.SalesStatement] VALUES ('178990', '10/17/2022')

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INSERT INTO [Terps.SalesStatement] VALUES ('178989', '09/22/2020')
INSERT INTO [Terps.SalesStatement] VALUES ('178879', '10/02/2019')
INSERT INTO [Terps.SalesStatement] VALUES ('179989', '08/26/2021')
INSERT INTO [Terps.SalesStatement] VALUES ('178985', '09/13/2022')
INSERT INTO [Terps.SalesStatement] VALUES ('178966', '09/13/2018')
INSERT INTO [Terps.SalesStatement] VALUES ('178278', '09/13/2020')
INSERT INTO [Terps.SalesStatement] VALUES ('179996', '10/28/2022')
INSERT INTO [Terps.SalesStatement] VALUES ('177756', '08/18/2021')
INSERT INTO [Terps.SalesStatement] VALUES ('178880', '11/28/2021')
INSERT INTO [Terps.SalesStatement] VALUES ('178910', '12/21/2022')
INSERT INTO [Terps.SalesStatement] VALUES ('178920', '12/30/2019')

INSERT INTO [Terps.Dealer] VALUES ('152440', 'Drew', 'Barrymore', '4', '178990')
INSERT INTO [Terps.Dealer] VALUES ('152439', 'Haley', 'Manjit', '10', '178989')
INSERT INTO [Terps.Dealer] VALUES ('152499', 'Sanjit', 'Sharma', '11', '178879')
INSERT INTO [Terps.Dealer] VALUES ('167839', 'Hamay', 'Singh', '12', '179989')
INSERT INTO [Terps.Dealer] VALUES ('152434', 'Haley', 'Jain', '11', '178985')
INSERT INTO [Terps.Dealer] VALUES ('153340', 'Danny', 'Bono', '3', '178880')
INSERT INTO [Terps.Dealer] VALUES ('158440', 'Annie', 'Lee', '5', '178910')
INSERT INTO [Terps.Dealer] VALUES ('150040', 'Raval', 'Shah', '7', '178920')

INSERT INTO [Terps.Provide] VALUES ('129068', '142346', '132891')
INSERT INTO [Terps.Provide] VALUES ('129067', '142346', '132891')
INSERT INTO [Terps.Provide] VALUES ('129070', '142346', '132891')
INSERT INTO [Terps.Provide] VALUES ('128067', '142346', '132891')
INSERT INTO [Terps.Provide] VALUES ('129058', '142346', '132891')
INSERT INTO [Terps.Provide] VALUES ('129064', '147845', '133890')
INSERT INTO [Terps.Provide] VALUES ('129034', '142245', '133395')
INSERT INTO [Terps.Provide] VALUES ('122224', '144446', '132823')
INSERT INTO [Terps.Provide] VALUES ('123324', '142342', '139995')
INSERT INTO [Terps.Provide] VALUES ('129090', '147869', '132794')
INSERT INTO [Terps.Provide] VALUES ('128088', '142996', '133792')

INSERT INTO [Terps.Receive] VALUES ('178990', '119090', '129068')
INSERT INTO [Terps.Receive] VALUES ('178989', '119089', '129067')
INSERT INTO [Terps.Receive] VALUES ('178879', '119089', '129070')
INSERT INTO [Terps.Receive] VALUES ('179989', '119089', '128067')
INSERT INTO [Terps.Receive] VALUES ('178985', '119089', '129058')
INSERT INTO [Terps.Receive] VALUES ('178966', '119081', '129064')
INSERT INTO [Terps.Receive] VALUES ('178278', '119087', '129034')
INSERT INTO [Terps.Receive] VALUES ('179996', '111178', '122224')
INSERT INTO [Terps.Receive] VALUES ('177756', '112278', '123324')
INSERT INTO [Terps.Receive] VALUES ('178880', '118190', '128088')
INSERT INTO [Terps.Receive] VALUES ('178910', '118090', '129090')
INSERT INTO [Terps.Receive] VALUES ('178920', '118290', '127070')

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--Question 1: Fetch the SalesStatement for all the cars bought by Ramya Shah

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CREATE VIEW [SalesStatement of all cars] AS
SELECT S.salStatementId AS 'Sales Statement Id', S.salStatementIDate AS 'Sales
Statement Date'
FROM ([Terps.Receive] r
INNER JOIN [Terps.SalesStatement] S ON R.salStatementId = S.salStatementId)
INNER JOIN [Terps.Customer] C ON R.custId = C.custId)
WHERE C.custFirstName = 'Ramya'

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SELECT * FROM [SalesStatement of all cars];
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--Question 2: How many customers does Terp Motor Dealer have in 'College Park'

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area?
CREATE VIEW [Customers in College Park] AS
SELECT COUNT(*) AS 'Customers in College Park'
FROM [Terps.Customer] c
WHERE c.custAddress LIKE '%College%'

SELECT * FROM [Customers in College Park];

--Question 3: How many latest cars are there in showroom? (Manufactured in 2022)

CREATE VIEW [Latest_Cars] AS
SELECT COUNT(c.carId) AS 'Number of Latest Cars'
FROM [Terps.Car] c
WHERE c.carManufactureYear = '2022'

SELECT * FROM [Latest_Cars];

--Question 4: What are all the services provided by the mechanics?

CREATE VIEW [Services_Provided] AS
SELECT DISTINCT s.serId AS 'Service Id', s.serDescription AS 'Service Description',
m.mecFirstName AS 'Mechanic First Name'
FROM ([Terps.Provide] p
INNER JOIN [Terps.Service] s ON p.serId = s.serId)
INNER JOIN [Terps.Mechanic] m ON p.mecId = m.mecId)

SELECT * FROM [Services_Provided]

--Question 5: What services cost more than a hundred dollars?

CREATE VIEW [Costly_Services] AS
SELECT s.serId AS 'Service ID', s.serDescription AS 'Service Name', s.serPrice AS
'Service Price'
FROM [Terps.Service] s
WHERE s.serPrice > 100

SELECT * FROM Costly_Services

-- Question 6: What services have been provided on which cars by Terp Motor
Dealers?

CREATE VIEW [Car_Services] AS
SELECT s.serId AS 'Service ID', s.serDescription AS 'Service Name', p.carId AS 'Car
ID', c.carModel AS 'Car Model', c.carColour AS 'Car Color'
FROM [Terps.Service] s, [Terps.Provide] p, [Terps.Car] c
WHERE s.serId = p.serId AND p.carId = c.carId
GROUP BY s.serId, s.serDescription, p.carId, c.carModel, c.carColour

SELECT * FROM Car_Services

-- Question 7: Which customers have purchased more than 1 car from Terp Motor
Dealers?

CREATE VIEW [Multiple_Cars] AS
SELECT c.custId AS 'Customer ID', CONCAT( c.custFirstName, ' ', c.custLastName) AS
'Customer Name', ca.carModel AS 'Car Model'
FROM [Terps.Customer] c, [Terps.Car] ca
WHERE c.custId = ca.custId AND ca.custId in (SELECT ca.custId
FROM [Terps.Car]

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ca

GROUP BY ca.custId
HAVING

COUNT(ca.custId) > 1)

SELECT * FROM [Multiple_Cars]