ITCS 393 Database System Lab

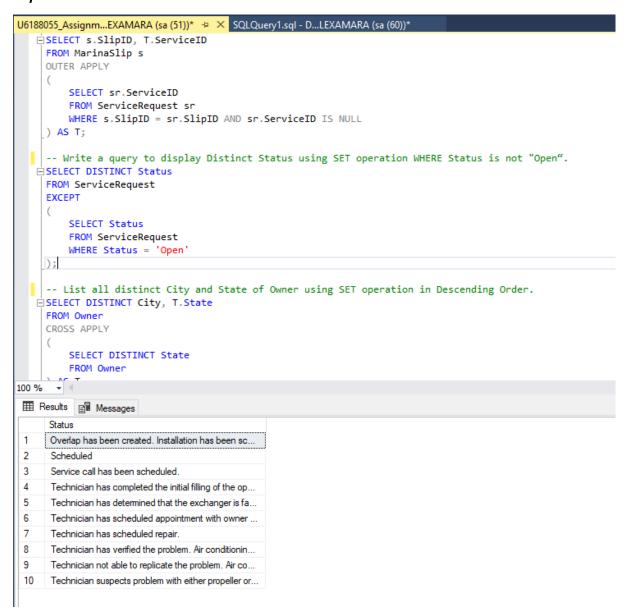
Assignment #6

Solve the following 7 questions using SQL SET Operations

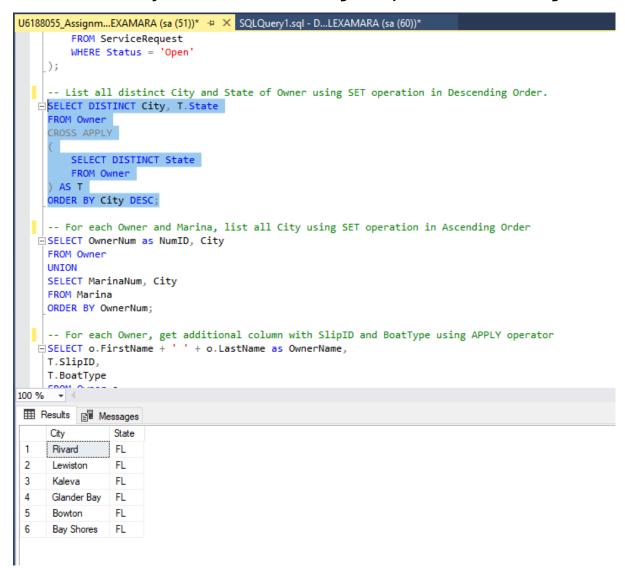
a. Write a query to show SlipID that does not request for service.

```
U6188055_Assignm...EXAMARA (sa (51))* → × SQLQuery1.sql - D...LEXAMARA (sa (60))*
   □USE ALEXAMARA;
   🖫 -- Name: Mangkhales Ngamjaruskotchakorn
    -- ID: 6188055 Section: 1 Date: 3/8/2021
     -- Write a query to show SlipID that does not request for service
   SELECT s.SlipID, T.ServiceID
     FROM MarinaSlip s
    OUTER APPLY
        SELECT sr.ServiceID
        FROM ServiceRequest sr
        WHERE s.SlipID = sr.SlipID AND sr.ServiceID IS NULL
    ) AS T;
    -- Write a query to display Distinct Status using SET operation WHERE Status is not "Open".
   SELECT DISTINCT Status
    FROM ServiceRequest
    EXCEPT
        SELECT Status
        FROM ServiceRequest
        WHERE Status = 'Open'
    -- List all distinct City and State of Owner using SET operation in Descending Order.
100 % +
Results Messages
     SlipID ServiceID
    1 NULL
    2
           NULL
    3
           NULL
           NULL
 5
           NULL
           NULL
 7
     7
           NULL
     8
 8
           NULL
     9
 9
           NULL
 10
    10
           NULL
 11
    11
           NULL
```

b. Write a query to display Distinct Status using SET operation WHERE Status is not "Open".



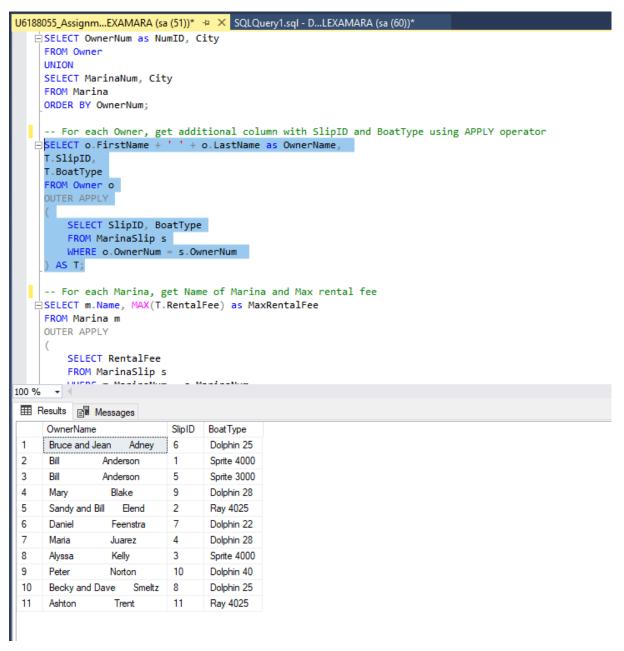
c. List all distinct City and State of Owner using SET operation in Descending Order.



d. For each Owner and Marina, list all City using SET operation in Ascending Order.

```
U6188055_Assignm...EXAMARA (sa (51))* → × SQLQuery1.sql - D...LEXAMARA (sa (60))*
        SELECT DISTINCT State
        FROM Owner
     ) AS T
    ORDER BY City DESC;
     -- For each Owner and Marina, list all City using SET operation in Ascending Order
   SELECT OwnerNum as NumID, City
     UNION
     SELECT MarinaNum, City
     FROM Marina
     ORDER BY OwnerNum;
    -- For each Owner, get additional column with SlipID and BoatType using APPLY operator
   SELECT o.FirstName + ' ' + o.LastName as OwnerName,
    T.SlipID.
     T.BoatType
    FROM Owner o
    OUTER APPLY
        SELECT SlipID, BoatType
        FROM MarinaSlip s
        WHERE o.OwnerNum = s.OwnerNum
-- For each Marina, get Name of Marina and Max rental fee
 Results Messages
     NumID City
    1 Brinman
    2
            W Brinman
 2
    AD57
 3
           Bowton
    AN75 Glander Bay
 4
    BL72 Bowton
 5
    EL25
 6
           Rivard
 7
     FE82
           Kaleva
    JU92 Rivard
 8
     KE22 Bowton
 9
 10 NO27 Lewiston
 11
    SM72 Glander Bay
    TR72 Bay Shores
 12
```

e. For each Owner, get additional column with SlipID and BoatType using APPLY operator.



f. For each Marina, get Name of Marina and Max rental fee.

```
U6188055_Assignm...EXAMARA (sa (51))* → × SQLQuery1.sql - D...LEXAMARA (sa (60))*
     OUTER APPLY
         SELECT SlipID, BoatType
         FROM MarinaSlip s
        WHERE o.OwnerNum = s.OwnerNum
     ) AS T;
     -- For each Marina, get Name of Marina and Max rental fee
   SELECT m.Name, MAX(T.RentalFee) as MaxRentalFee
     FROM Marina m
     OUTER APPLY
        SELECT RentalFee
        FROM MarinaSlip s
        WHERE m.MarinaNum = s.MarinaNum
     ) AS T
     GROUP BY m.Name;
    -- For every Slip, list the marina number, slip number, boat name, owner numbe
   SELECT s.SlipID, s.MarinaNum, s.SlipNum, s.BoatName,
     T.OwnerNum, T.FirstName, T.LastName
     FROM MarinaSlip s
     CROSS APPLY
         SELECT OwnerNum, FirstName, LastName
        FROM Owner o
100 %
 Results 📳 Messages
     Name
                    MaxRentalFee
     Alexamara Central 4200.00
     Alexamara East
                    3800.00
```

g. For every Slip, list the marina number, slip number, boat name, owner number, owner's first name, and owner's last name.

