

```

/*
Project 1: Excelsior Mobile Report
Veng Leap Chan
*/

USE [22WQ_BUAN4210_Lloyd_ExcelsiorMobile]
-- Report Question with Visualizations
-- 1 --
-- A
SELECT CONCAT(TRIM(Sub.FirstName), ' ', TRIM(Sub.LastName)) AS 'First and Last
Name', LMU.[Minutes], LMU.Texts, LMU.DatainMB, Bill.Total
FROM Subscriber AS Sub, LastMonthUsage AS LMU, Bill
WHERE LMU.[MIN] = Sub.[MIN]
      AND LMU.[MIN] = Bill.[MIN]
ORDER BY CONCAT(TRIM(Sub.FirstName), ' ', TRIM(Sub.LastName));

-- B
SELECT Subscriber.City,
      AVG(LMU.[Minutes]) AS 'Average Minutes',
      AVG(LMU.[DataInMB]) AS 'Average DataInMB',
      AVG(LMU.Texts) AS 'Average Texts',
      AVG(Bill.Total) AS 'Average Bill Total'
FROM Subscriber, LastMonthUsage AS LMU, Bill
WHERE LMU.[MIN] = Subscriber.[MIN]
      AND Bill.[MIN] = LMU.[MIN]
GROUP BY Subscriber.City

-- C
SELECT Subscriber.City,
      SUM(LMU.[Minutes]) AS 'Sum of Minutes',
      SUM(LMU.[DataInMB]) AS 'Sum of DataInMB',
      SUM(LMU.Texts) AS 'Sum of Texts',
      SUM(Bill.Total) AS 'Sum of Bill Total'
FROM Subscriber, LastMonthUsage AS LMU, Bill
WHERE LMU.[MIN] = Subscriber.[MIN]
      AND Bill.[MIN] = LMU.[MIN]
GROUP BY Subscriber.City

-- D
SELECT Subscriber.PlanName,
      AVG(LMU.[Minutes]) AS 'Average Minutes',
      AVG(LMU.[DataInMB]) AS 'Average DataInMB',
      AVG(LMU.Texts) AS 'Average Texts',
      AVG(Bill.Total) AS 'Average Bill Total'
FROM Subscriber, LastMonthUsage AS LMU, Bill
WHERE Subscriber.[MIN] = LMU.[MIN]
      AND Subscriber.[MIN] = Bill.[MIN]
GROUP BY Subscriber.PlanName

-- E
SELECT Subscriber.PlanName,
      SUM(LMU.[Minutes]) AS 'Sum of Minutes',
      SUM(LMU.[DataInMB]) AS 'Sum of DataInMB',
      SUM(LMU.Texts) AS 'Sum of Texts',
      SUM(Bill.Total) AS 'Sum of Bill Total'
FROM Subscriber, LastMonthUsage AS LMU, Bill
WHERE LMU.[MIN] = Subscriber.[MIN]
      AND Bill.[MIN] = LMU.[MIN]
GROUP BY Subscriber.PlanName

```

```

-- report Questions (without visualizations)
-- 1 --
-- A
SELECT TOP 2 City
FROM Subscriber
GROUP BY City
ORDER BY COUNT(CITY) DESC;

-- B
SELECT TOP 3 City
FROM Subscriber
GROUP BY City
ORDER BY COUNT(City);

-- C
SELECT TOP 1 PlanName
FROM Subscriber
GROUP BY PlanName
ORDER BY COUNT(PlanName);

-- 2 --
-- A
SELECT [Type], COUNT([Type]) AS 'Number of Cell Phones'
FROM Device
GROUP BY [Type]

-- B
SELECT Subscriber.FirstName, Subscriber.LastName
FROM Subscriber, Device, DirNums
WHERE Subscriber.MDN = DirNums.MDN
      AND DirNums.IMEI = Device.IMEI
      AND Device.[Type] = 'Apple';

-- C
SELECT Subscriber.FirstName, Subscriber.LastName, Device.YearReleased
FROM Subscriber, Device, DirNums
WHERE Subscriber.MDN = DirNums.MDN
      AND DirNums.IMEI = Device.IMEI
      AND Device.YearReleased < 2018;

-- 3 --
-- A
SELECT TOP 3 Subscriber.City, SUM>LastMonthUsage.DataInMB) AS 'Total Data Usage'
FROM LastMonthUsage, Subscriber
WHERE LastMonthUsage.[MIN] = Subscriber.[MIN]
GROUP BY Subscriber.City
ORDER BY SUM>LastMonthUsage.DataInMB) DESC;

-- B
SELECT TOP 3 Subscriber.City, SUM>LastMonthUsage.DataInMB) AS 'Total Data Usage'
FROM LastMonthUsage, Subscriber, MPlan
WHERE LastMonthUsage.[MIN] = Subscriber.[MIN]
      AND MPlan.PlanName = Subscriber.PlanName
      AND MPlan.[DATA] <> 'Unlimited'
GROUP BY Subscriber.City
ORDER BY SUM>LastMonthUsage.DataInMB) DESC;

-- 4 --

```

```
-- A
SELECT TOP 1 Subscriber.FirstName, Subscriber.LastName
FROM Subscriber, Bill
WHERE Subscriber.[MIN] = Bill.[MIN]
ORDER BY Bill.Total DESC;
```

```
-- B
SELECT TOP 1 Subscriber.PlanName
FROM Subscriber, Bill
WHERE Subscriber.[MIN] = Bill.[MIN]
ORDER BY Bill.Total DESC;
```

```
-- 5 --
-- A
SELECT TOP 1 LEFT(Subscriber.MDN, 3) AS 'Area Code', SUM>LastMonthUsage.[Minutes])
AS 'Total Minutes'
FROM Subscriber, LastMonthUsage
WHERE Subscriber.[MIN] = LastMonthUsage.[MIN]
GROUP BY LEFT(Subscriber.MDN, 3)
ORDER BY SUM>LastMonthUsage.[Minutes]) DESC;
```

```
-- B
SELECT Subscriber.City
FROM Subscriber, LastMonthUsage
WHERE LastMonthUsage.[MIN] = Subscriber.[MIN]
    AND LastMonthUsage.[Minutes] > 700
    AND Subscriber.City IN
        (SELECT Subscriber.City
         FROM Subscriber, LastMonthUsage
         WHERE Subscriber.[MIN] = LastMonthUsage.[MIN]
         AND LastMonthUsage.[Minutes] < 200
         GROUP BY Subscriber.City)
```