

Assignment 6  
James Livingstone

Answer #1

```
SELECT AnnualSalary , AnnualSalary/12 AS MonthlySalary , ROUND(AnnualSalary/12, 2) AS  
MonthlySalaryRounded  
FROM Instructors;
```

	AnnualSalary	MonthlySalary	MonthlySalaryRounded
1	77500.00	6458.3333	6458.33
2	38500.00	3208.3333	3208.33
3	79000.00	6583.3333	6583.33
4	75000.00	6250.00	6250.00
5	74000.00	6166.6666	6166.67
6	36000.00	3000.00	3000.00
7	38000.00	3166.6666	3166.67
8	73000.00	6083.3333	6083.33
9	71500.00	5958.3333	5958.33
10	74000.00	6166.6666	6166.67
11	35500.00	2958.3333	2958.33
12	35500.00	2958.3333	2958.33
13	34000.00	2833.3333	2833.33
14	33000.00	2750.00	2750.00
15	72000.00	6000.00	6000.00
16	64000.00	5333.3333	5333.33

Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | MurachCollege | 00:00:00 | 16 rows

Assignment 6  
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Answer #2

```
SELECT EnrollmentDate , YEAR(EnrollmentDate) AS EnrollYear , DAY(EnrollmentDate) AS  
EnrollDoM , YEAR(DATEADD(YEAR, 4, EnrollmentDate)) AS PossibleGradYear  
FROM Students;
```

	EnrollmentDate	EnrollYear	EnrollDoM	PossibleGradYear
1	2015-12-18 16:44:26	2015	18	2019
2	2015-12-20 11:12:26	2015	20	2019
3	2015-12-21 09:21:55	2015	21	2019
4	2015-12-21 13:23:10	2015	21	2019
5	2015-12-28 10:32:16	2015	28	2019
6	2016-01-02 12:37:31	2016	2	2020
7	2016-01-03 13:08:37	2016	3	2020
8	2016-01-03 15:44:56	2016	3	2020
9	2016-07-15 11:14:23	2016	15	2020
10	2016-07-15 17:02:45	2016	15	2020
11	2016-07-18 12:48:43	2016	18	2020
12	2016-07-20 09:37:53	2016	20	2020
13	2016-07-22 11:18:25	2016	22	2020
14	2016-12-10 15:31:28	2016	10	2020
15	2016-12-12 14:22:53	2016	12	2020
16	2016-12-14 16:42:11	2016	14	2020
17	2016-12-22 08:43:48	2016	22	2020
18	2017-01-02 11:28:49	2017	2	2021
19	2017-01-04 10:42:06	2017	4	2021

Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | MurachCollege | 00:00:00 | 43 rows

Assignment 6  
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Answer #3

```
SELECT D.DepartmentName, C.CourseNumber, I.FirstName, I.LastName,  
CONCAT(UPPER(SUBSTRING(D.DepartmentName,1,3)), CAST(C.CourseNumber as varchar)  
, SUBSTRING(I.FirstName,1,1), LastName) AS ConcatColumn  
FROM Departments AS D  
JOIN Courses AS C ON D.DepartmentID = C.DepartmentID  
JOIN Instructors AS I ON D.DepartmentID = I.DepartmentID;
```

	DepartmentName	CourseNumber	FirstName	LastName	ConcatColumn
1	Business	36598	Billy	Brown	BUS36598BBrown
2	Business	36598	Gene	Green	BUS36598GGreen
3	Business	36598	NULL	Rogers	BUS36598Rogers
4	Business	36598	Jonathan	Vilma	BUS36598JVilma
5	Mathematics	48926	NULL	McGregor	MAT48926McGregor
6	Mathematics	48926	Angela	Warren	MAT48926AWarren
7	Education	14862	John	Smith	EDU14862JSmith
8	Education	14862	Bill	Black	EDU14862BBlack
9	Science	54321	Rachel	Amundsen	SCI54321RAmundsen
10	Science	54321	Tomas	Gallegos	SCI54321TGallegos
11	Sociology	82754	Daniel	Connors	SOC82754DConnors
12	Business	13524	Billy	Brown	BUS13524BBrown
13	Business	13524	Gene	Green	BUS13524GGreen
14	Business	13524	NULL	Rogers	BUS13524Rogers
15	Business	13524	Jonathan	Vilma	BUS13524JVilma
16	Business	24653	Billy	Brown	BUS24653BBrown
17	Business	24653	Gene	Green	BUS24653GGreen
18	Business	24653	NULL	Rogers	BUS24653Rogers
19	Business	24653	Jonathan	Vilma	BUS24653JVilma

Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | MurachCollege | 00:00:00 | 66 rows

Assignment 6  
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Answer #4

```
SELECT FirstName, LastName, EnrollmentDate, GraduationDate, DATEDIFF(month,  
EnrollmentDate, GraduationDate) AS MonthsToGraduate  
FROM Students AS S  
WHERE GraduationDate IS NOT NULL;
```

	FirstName	LastName	EnrollmentDate	GraduationDate	MonthsToGraduate
1	Amber	Howard	2015-12-18 16:44:26	2019-12-14	48
2	George	White	2015-12-20 11:12:26	2019-12-14	48
3	Tony	MacNamara	2015-12-21 09:21:55	2019-05-07	41
4	Jonathan	Welch	2015-12-21 13:23:10	2019-12-14	48
5	Rose	Price	2016-01-02 12:37:31	2019-12-14	47
6	Jesse	Rodriguez	2016-01-03 13:08:37	2019-05-07	40
7	Roberta	Smith	2016-07-22 11:18:25	2019-12-14	41

✓ Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | MurachCollege | 00:00:00 | 7 rows

Assignment 6  
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Answer #5

```
SELECT CASE WHEN GROUPING(ISNULL(LastName + ', ' + FirstName, 'FNU')) = 1 THEN  
  'GrandTotal'  
  ELSE ISNULL(LastName + ', ' + FirstName, 'FNU') END,  
  COUNT(CourseID) AS NumberOfCourses  
FROM   Instructors AS I  
       LEFT JOIN Courses AS C ON I.InstructorID = C.InstructorID  
WHERE  Status = 'P'  
GROUP BY ROLLUP (ISNULL(LastName + ', ' + FirstName, 'FNU'));
```

Results		Messages
	(No column name)	NumberOfCourses
1	Black, Bill	1
2	FNU	1
3	Paxton, Arnold	0
4	Thomas, Derrick	2
5	Thomas, William	1
6	Vilma, Jonathan	1
7	Warren, Angela	1
8	GrandTotal	7

✓ Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | MurachCollege | 00:00:00 | 8 rows

Assignment 6  
James Livingstone

Answer #6

```
SELECT SUM(NmbrSales) OVER(ORDER BY InvoiceDate) AS RunningTotal, LAG(NmbrSales,7) OVER  
(ORDER BY InvoiceDate) AS '7-day lag', InvoiceDate, NmbrSales  
FROM  
    (SELECT InvoiceDate, COUNT(*) AS NmbrSales  
    FROM Invoices  
    GROUP BY InvoiceDate) Invoices  
Group By InvoiceDate, NmbrSales  
ORDER BY InvoiceDate;
```

Results

Messages

	RunningTotal	7-day lag	InvoiceDate	NmbrSales
1	1	NULL	2019-10-08	1
2	2	NULL	2019-10-10	1
3	3	NULL	2019-10-13	1
4	6	NULL	2019-10-16	3
5	7	NULL	2019-10-21	1
6	10	NULL	2019-10-24	3
7	11	NULL	2019-10-25	1
8	12	1	2019-10-26	1
9	13	1	2019-10-30	1
10	14	1	2019-11-01	1
11	16	3	2019-11-03	2
12	17	1	2019-11-05	1
13	18	3	2019-11-06	1
14	19	1	2019-11-07	1
15	20	1	2019-11-10	1
16	22	1	2019-11-11	2
17	25	1	2019-11-13	3
18	26	2	2019-11-14	1
19	27	1	2019-11-15	1

Query executed successfully.

MSI (15.0 RTM) | MSI\fred (59) | AP | 00:00:00 | 71 rows

Assignment 6  
James Livingstone

Answer #7

```
SELECT (CASE WHEN MiddleName IS NOT NULL
    THEN (FirstName + ', ' + MiddleName + '. ' + LastName)
    ELSE (FirstName + ', ' + LastName)
    END) AS FullName,
    (CASE WHEN PersonType = 'SC' THEN 'Store Contact'
        WHEN PersonType = 'IN' THEN 'Individual Customer'
        WHEN PersonType = 'SP' THEN 'Sales Person'
        WHEN PersonType = 'EM' THEN 'Employee'
        WHEN PersonType = 'VC' THEN 'Vendor Contact'
        WHEN PersonType = 'GC' THEN 'General Contact'
    END) AS 'Person_Type'
FROM Person.Person;
```

Results		Messages
	FullName	Person_Type
1	Ken, J. Sánchez	Employee
2	Teri, Lee. Duffy	Employee
3	Roberto, Tamburello	Employee
4	Rob, Walters	Employee
5	Gail, A. Erickson	Employee
6	Jossef, H. Goldberg	Employee
7	Dylan, A. Miller	Employee
8	Diane, L. Margheim	Employee
9	Gigi, N. Matthew	Employee
10	Michael, Raheem	Employee
11	Ovidiu, V. Cracium	Employee
12	Thierry, B. D'Hers	Employee
13	Janice, M. Galvin	Employee
14	Michael, I. Sullivan	Employee
15	Sharon, B. Salavaria	Employee
16	David, M. Bradley	Employee
17	Kevin, F. Brown	Employee
18	John, L. Wood	Employee
19	Mary, A. Dempsey	Employee

Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | AdventureWorks2017 | 00:00:01 | 19,972 rows

Assignment 6  
James Livingstone

Answer #8

```
SELECT LastName, TerritoryName, CountryRegionName
FROM Sales.vSalesPerson
WHERE TerritoryName IS NOT NULL
ORDER BY (CASE WHEN CountryRegionName = 'United States' THEN TerritoryName
                ELSE CountryRegionName
            END);
```

Results		Messages	
	LastName	TerritoryName	CountryRegionName
1	Tsofilas	Australia	Australia
2	Vargas	Canada	Canada
3	Saraiva	Canada	Canada
4	Carson	Central	United States
5	Varkey Chudukatil	France	France
6	Valdez	Germany	Germany
7	Blythe	Northeast	United States
8	Campbell	Northwest	United States
9	Mensa-Annan	Northwest	United States
10	Ansman-Wolfe	Northwest	United States
11	Reiter	Southeast	United States
12	Mitchell	Southwest	United States
13	Ito	Southwest	United States
14	Pak	United Kingdom	United Kingdom

Query executed successfully. | MSI (15.0 RTM) | MSI\fred (59) | AdventureWorks2017 | 00:00:00 | 14 rows