

SQL Assesment

Question 1

```
1 USE AdventureWorks2022;
2
3 SELECT * FROM HumanResources.Employee
```

BusinessEntityID	NationalIDNumber	LoginID
1	2359474284	adventureworks\michaelm0
2	245797867	adventureworks\terri0
3	509647174	adventureworks\roberto0
4	123456789	adventureworks\jose0
5	493256808	adventureworks\joseph0
6	999320692	adventureworks\joseph0
7	13489119	adventureworks\dyplano0
8	823212345	adventureworks\michael1
9	658797903	adventureworks\gig10
10	879342154	adventureworks\michael6
11	879342155	adventureworks\michael7
12	480146528	adventureworks\michael8
13	486228782	adventureworks\jessica0
14	42477730	adventureworks\michael1
15	159922876	adventureworks\michael2
16	24716624	adventureworks\david0
17	235322876	adventureworks\kevin0
18	228222876	adventureworks\kevin1
19	32542318	adventureworks\mary2
20	323403273	adventureworks\wendia0
21	243522160	adventureworks\terry0
22	359812216	adventureworks\terry1
23	767955365	adventureworks\terry2
24	72656981	adventureworks\jill10
25	513937471	adventureworks\jill11
26	277173473	adventureworks\jillgeorge0
27	446466105	adventureworks\jill0
28	14417907	adventureworks\guyl
29	94882468	adventureworks\guyl
30	410742000	adventureworks\britta0
31	750524141	adventureworks\marianne0

Question 2

```
1 USE AdventureWorks2022;
2 /*Employee table*/
3 SELECT * FROM HumanResources.Employee e
4 LEFT JOIN Person.Person p
5 ON e.BusinessEntityID = p.BusinessEntityID
6 ORDER BY p.LastName ASC
7
8 /*Person table*/
9 SELECT * FROM Person.Person p
10 ORDER BY p.LastName ASC
```

BusinessEntityID	PersonType	NameStyle	Title	FirstName	MiddleName	LastName	Suffix
285	SP	0	Mr.	Syed	E	Abbas	
293	SC	0	Ms.	Catherine	R.	Abe	
296	SC	0	Ms.	Kim		Abberombie	
2170	GC	0		NULL	Kim	Abberombie	
38	EM	0		NULL	Kim	Abberombie	
211	EM	0		NULL	Hazem	Abelrouz	
287	GC	0		NULL	Sam	Abelrouz	
297	SC	0		NULL	Humberto	Abelrouz	
291	SC	0	Mr.	Gustavo		Abelrouz	
299	SC	0	Sra.	Pilar		Achong	
123	EM	0		NULL	Patricia	Ackerman	
14687	EM	0		NULL	Aaron	Adams	
14901	EM	0		NULL	Adam	Adams	
14704	EM	0		NULL	Alan	Adams	
10243	EM	0		NULL	Alexandra	Adams	

BusinessEntityID	PersonType	NameStyle	Title	FirstName	MiddleName	LastName	Suffix	EmailPromotion	AdditionalContactInfo	Demographics	DemographicSurvey
285	SP	0	Mr.	Syed	E	Abbas		NULL	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	none	FF294
293	SC	0	Ms.	Catherine	R.	Abe		1	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	D54D
296	SC	0	Ms.	Kim		Abberombie		0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	F7CB1
4	2170	GC	0	NULL	Kim	Abberombie		0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	24F7
5	38	EM	0	NULL	B	Abberombie		2	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	2A211
6	211	EM	0	NULL	Hazem	Abelrouz		0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	C0371
7	297	SC	0	NULL	Sam	Abelrouz		1	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	7B889
8	297	SC	0	Sr.	Humberto	Abelrouz		2	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	5A41C
9	261	EM	0	NULL	Gustavo	Abelrouz		2	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	D41C1
10	399	SC	0	Sra.	Pilar	Ackerman		0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	191F1
11	121	EM	0	NULL	Aaron	Adams		0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	81F5C
12	16867	IN	0	NULL	Aaron	Adams		2	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	84621
13	16901	IN	0	NULL	Adam	Adams		1	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	16C9C
14	16724	IN	0	NULL	Alex	Adams	C	0	<AdditionalContactInfo xmlns="http://schemas.microsoft.com/sqlserver/2004/07/adventureworks/schemas/ContactInfo.xsd"/>	adventureworks\Survey	AF991

Question 3

```
1 USE AdventureWorks2022;
2
3 SELECT FirstName, LastName, BusinessEntityID as 'Employee_id'
4 FROM Person.Person
5 ORDER BY LastName ASC
```

FirstName	LastName	Employee_id
Syed	Abbas	285
Catherine	Abel	293
Kim	Abercrombie	295
Kim	Abercrombie	2170
Kim	Abercrombie	38
Hazem	Abelrous	211
Sam	Abelrous	2387
Humberto	Acuedo	297
Gustavo	Achong	291
Pilar	Ackerman	299
Pilar	Ackerman	121
Mason	Adams	16967
Adam	Adams	16901
Alex	Adams	16724
alexandra	Adams	10263
Allison	Adams	10312
Allison	Adams	10274
Amanda	Adams	10292
Amber	Adams	10314
Andrea	Adams	16699
Angel	Adams	10299
Bailey	Adams	1770
Ben	Adams	1770

Question 4

```

1 USE AdventureWorks2022;
2
3 SELECT * FROM Production.Product
4 WHERE (SellStartDate IS NOT NULL) AND (ProductLine = 'T')

```

ProductID	Name	ProductNumber	MakeFlag	FinishedGoodsFlag	Color	SafetyStockLevel	ReorderPoint	StandardCost	ListPrice
121	Touring Frame - Wheel	PN-T905	1	1	Black	500	375	94.766	218.01
129	Touring Seat - Wheel	PN-T906	1	1	Black	500	375	109.784	246.01
143	Touring Frame - Large	PN-T907	1	1	Grey	4	375	110.413	210.00
185	ML Touring Frame - Yellow, 60	PN-T907-60	1	1	Yellow	500	375	601.7437	1003.91
186	LL Touring Frame - Yellow, 60	PN-T907-42	1	1	Yellow	500	375	139.8619	333.42
187	ML Touring Frame - Yellow, 44	PN-T907-44	1	1	Yellow	500	375	203.5193	333.42
188	LL Touring Frame - Yellow, 50	PN-T907-50	1	1	Yellow	500	375	601.7437	1003.91
189	ML Touring Frame - Yellow, 54	PN-T907-54	1	1	Yellow	500	375	601.7437	1003.91
190	ML Touring Frame - Blue, 60	PN-T907-64	1	1	Blue	500	375	601.7437	1003.91
191	ML Touring Frame - Blue, 44	PN-T907-44	1	1	Blue	500	375	601.7437	1003.91
192	LL Touring Frame - Blue, 60	PN-T907-60	1	1	Blue	500	375	601.7437	1003.91
193	LL Touring Frame - Blue, 44	PN-T907-44	1	1	Blue	500	375	601.7437	1003.91
194	ML Touring Frame - Blue, 60	PN-T907-50	1	1	Blue	500	375	601.7437	1003.91
195	ML Touring Frame - Blue, 50	PN-T907-54	1	1	Blue	500	375	139.8619	333.42
196	LL Touring Frame - Blue, 44	PN-T907-44	1	1	Blue	500	375	203.5193	333.42
197	LL Touring Frame - Blue, 60	PN-T907-50	1	1	Blue	500	375	139.8619	333.42
198	LL Touring Frame - Blue, 44	PN-T907-44	1	1	Blue	500	375	203.5193	333.42
199	LL Touring Frame - Yellow, 44	PN-T907-44	1	1	Yellow	500	375	139.8619	333.42
200	LL Touring Frame - Yellow, 50	PN-T907-50	1	1	Yellow	500	375	139.8619	333.42
201	LL Touring Frame - Yellow, 54	PN-T907-54	1	1	Yellow	500	375	139.8619	333.42
202	LL Touring Frame - Yellow, 60	PN-T907-60	1	1	Yellow	500	375	139.8619	333.42
203	LL Touring Frame - Blue, 44	PN-T907-44	1	1	Blue	500	375	139.8619	333.42
204	LL Touring Frame - Blue, 50	PN-T907-50	1	1	Blue	500	375	139.8619	333.42
205	LL Touring Frame - Blue, 60	PN-T907-60	1	1	Blue	500	375	139.8619	333.42
212	ML Road Gear/Fenders	SE-T712	0	1	NULL	500	375	27.12	54.24

Question 5

```

1 USE AdventureWorks2022;
2
3 SELECT SalesOrderID,CustomerID,OrderDate, SubTotal,
4 (TaxAmt/SubTotal)*100 AS 'Tax_percent'
5 FROM Sales.SalesOrderHeader
6 ORDER BY SubTotal DESC

```

SalesOrderID	CustomerID	OrderDate	SubTotal	Tax_percent
51139	29641	2012-06-30 00:00:00.000	163930.394	10.94
58242	291	2013-05-30 00:00:00.000	100000.003	10.28
44616	29614	2012-05-30 00:00:00.000	150837.4897	9.93
44991	30103	2013-06-30 00:00:00.000	147390.9288	9.89
47395	29701	2012-07-31 00:00:00.000	146154.5653	9.83
47369	29598	2012-07-31 00:00:00.000	140078.3553	9.77
47355	29597	2012-07-31 00:00:00.000	129261.254	9.71
51822	29913	2013-06-30 00:00:00.000	128873.2206	9.80
44518	29624	2011-10-01 00:00:00.000	126198.3362	9.72
57150	29923	2013-05-30 00:00:00.000	122285.724	9.61
51858	29940	2013-06-30 00:00:00.000	122284.4578	11.06
43875	29624	2011-07-01 00:00:00.000	121761.9396	9.74
46607	29594	2012-05-31 00:00:00.000	120182.185	9.77
46660	29646	2012-05-30 00:00:00.000	117274.3463	10.03
67305	29641	2014-03-01 00:00:00.000	116153.8278	9.67
43884	29861	2011-07-01 00:00:00.000	115696.3313	9.69
53573	30050	2013-07-31 00:00:00.000	115310.4777	9.87
47485	29715	2012-07-31 00:00:00.000	112722.5945	9.64

Question 6

```

1 USE AdventureWorks2022;
2
3 SELECT DISTINCT(JobTitle) FROM HumanResources.Employee

```

JobTitle
Accountant
Accounts Manager
Accounts Payable Specialist
Accounts Receivable Specialist
Application Specialist
Assistant to the Chief Financial Officer
Benefits Specialist
Buyer
Chief Executive Officer
Chief Financial Officer
Control Specialist
Database Administrator
Design Engineer
Document Control Assistant
Document Control Manager
Engineering Manager
European Sales Manager
Facilities Administrative Assistant
Facilities Manager
Finance Manager
Human Resources Administrative Assistant
Human Resources Manager
Information Services Manager

Question 7

```
1 USE AdventureWorks2022;
2
3 SELECT CustomerID, SUM(Freight) as 'Total freight'
4 FROM Sales.SalesOrderHeader
5 GROUP BY CustomerID
6 ORDER BY CustomerID
```

CustomerID	Total freight
11000	206.2249
11001	189.5971
11002	202.8511
11003	203.4823
11004	204.9003
11005	203.0334
11006	202.9759
11007	201.2121
11008	202.6578
11009	202.2833
11010	202.2011
11011	203.3261
11012	2.0315
11013	2.849
11014	3.4613
11015	62.5243

Question 8

```
1 USE AdventureWorks2022;
2
3 SELECT CustomerID, SalesPersonID, AVG(SubTotal) as 'avg_subtotal',
4       SUM(SubTotal) as 'sum_subtotal'
5 FROM Sales.SalesOrderHeader
6 GROUP BY CustomerID, SalesPersonID
7 ORDER BY CustomerID DESC
```

CustomerID	SalesPersonID	avg_subtotal	sum_subtotal
30118	275	34638.1521	207828.9131
30118	277	35369.8284	70739.6669
30117	275	77171.7928	463030.787
30117	277	58954.1365	353724.8193
30116	276	46778.6502	187114.2011
30115	289	1114.6949	9317.5581
30114	290	14861.3939	118526.2911
30113	282	34148.2363	270165.8908
30112	280	93591.6217	93591.6217
30112	284	54908.3785	384365.6498
30111	277	69131.6007	276526.4031
30110	276	406.3188	1625.2765
30109	275	59857.2405	119714.521
30109	277	36114.5232	216687.1397
30108	289	36150.6454	144602.5816
30107	276	48090.7976	577089.5723
30106	275	6172.4534	12344.9068
30106	277	14809.7794	88858.6768
30105	280	26523.0027	26523.0027

Question 9

```
1 USE AdventureWorks2022;
2
3 SELECT ProductID, SUM(Quantity) as 'Total Quantity'
4 FROM Production.ProductInventory
5 WHERE (Shelf = 'A' OR Shelf = 'C' OR Shelf = 'H')
6 GROUP BY ProductID
7 Having SUM(Quantity)>500
8 ORDER BY ProductID ASC
```

ProductID	Total Quantity
1	761
2	791
3	909
4	900
316	532
317	593
319	757
320	11386
321	1750
322	1684
323	1684
324	1629
325	1210
326	1097
328	1044
329	1025
330	1005
331	831
360	719
365	546
366	518

Question 10

```
1 USE AdventureWorks2022;
2
3 SELECT SUM(Quantity) as 'Total Quantity'
4 FROM Production.ProductInventory
5 Group by LocationID*10
```

```
Total Quantity
-----
332
20295
17919
186
72899
95477
20419
508
83173
110
5549
958
5145
13884

(14 rows affected)
```

Question 11

```
1 USE AdventureWorks2022;
2
3 SELECT P.BusinessEntityID, FirstName, LastName, N.PhoneNumber
4 FROM Person.Person P
5 LEFT JOIN Person.PersonPhone N
6 ON p.BusinessEntityID = N.BusinessEntityID
7 WHERE LastName LIKE 'L%'
8 ORDER BY LastName, FirstName
9
10
```

BusinessEntityID	FirstName	LastName	PhoneNumber
5527	Aaron	Lal	605-555-0159
5268	Adas	Lal	513-555-0110
12539	Alejandro	Lal	1 (11) 500 555-0117
19796	Alicia	Lal	1 (11) 500 555-0161
12044	Alicia	Lal	1 (11) 500 555-0119
14449	Allison	Lal	1 (11) 500 555-0177
5005	Alvin	Lal	1 (11) 500 555-0168
5070	Andres	Lal	1 (11) 500 555-0127
10416	Arturo	Lal	639-555-0164
8951	Ashlee	Lal	1 (11) 500 555-0148
6283	Austin	Lal	541-555-0141
11600	Barbara	Lal	1 (11) 500 555-0176
6744	Benjamin	Lal	1 (11) 500 555-0148
17275	Bethany	Lal	1 (11) 500 555-0196
30194	Bethany	Lal	1 (11) 500 555-0191
9590	Brad	Lal	469-555-0111
20292	Bradley	Lal	1 (11) 500 555-0124
6943	Brandon	Lal	445-555-0135
9340	Brendan	Lal	660-555-0111
5581	Caleb	Lal	392-555-0153
6334	Cameron	Lal	906-555-0115
16953	Carl	Lal	1 (11) 500 555-0125
4496	Carly	Lal	1 (11) 500 555-0150
.....

Question 12

```
1 USE AdventureWorks2022;
2
3 SELECT DISTINCT(SalesPersonID), CustomerID, SUM(SubTotal) AS
4 'Sum_Total'
4 FROM Sales.SalesOrderHeader
5 WHERE SalesPersonID IS NOT NULL
6 GROUP BY SalesPersonID, CustomerID
7 ORDER BY SalesPersonID ASC
8
9
10
```

SalesPersonID	CustomerID	Sum_Total
274	29491	33406.7043
274	29493	2146.962
274	29514	3405.1668
274	29523	34349.2656
274	29576	53.994
274	29579	35331.66
274	29604	647.994
274	29605	39461.0609
274	29616	136046.5212
274	29617	39593.3507
274	29623	1946.022
274	29650	83.998
274	29666	15842.6141
274	29669	3962.2441
274	29671	11802.5641
274	29675	4254.45
274	29680	2709.6518
274	29691	209.256
274	29707	7994.1743
274	29716	61206.4782
274	29719	971.982
274	29722	126422.2078
274	29755	12206.364
....

Question 13

```
1 USE AdventureWorks2022;
2
3 SELECT DISTINCT(LocationID), Shelf, SUM(Quantity) AS 'Total Quantity'
4 FROM Production.ProductInventory
```

```
5 GROUP BY LocationID, Shelf  
6
```

LocationID	Shelf	Total Quantity
1	A	2727
3	A	186
4	A	110
5	A	6572
6	A	2734
10	A	1379
20	A	1680
30	A	10329
60	A	1116
2	B	900
5	B	151
6	B	4780
10	B	1648
20	B	355
40	B	117
50	B	3591
1	C	13777
2	C	1557
..

Question 14

```
1 USE AdventureWorks2022;  
2  
3 SELECT LocationID, Shelf, SUM(Quantity) AS 'TotalQuantity'  
4 FROM Production.ProductInventory  
5 GROUP BY ROLLUP (LocationID, Shelf)  
6 ORDER BY LocationID, Shelf;  
7  
8
```

LocationID	Shelf	TotalQuantity
NULL	NULL	335974
1	NULL	72899
1	A	2727
1	C	13777
1	D	4551
1	E	8092
1	F	7614
1	G	3954
1	H	10905
1	J	5051
1	K	6751
1	L	7537
2	NULL	5549
2	B	900
2	C	1557
2	D	3092
3	NULL	186
3	A	186

Question 15

```
1 USE AdventureWorks2022;  
2  
3 SELECT LocationID, SUM(Quantity) AS 'TotalQuantity'  
4 FROM Production.ProductInventory  
5 GROUP BY ROLLUP (LocationID)  
6 ORDER BY LocationID;
```

LocationID	TotalQuantity
NULL	335974
1	72899
2	5549
3	186
4	110
5	20295
6	83173
7	17319
10	13584
20	5165
30	958
40	508
45	332
50	55477
60	20419

(15 rows affected)

Question 16

```
1 SELECT City, COUNT(BusinessEntityID) AS 'No. Of Employees'  
2 FROM Person.BusinessEntityAddress b  
3 LEFT JOIN Person.Address a  
4 ON b.AddressID = a.AddressID  
5 GROUP BY City  
6 ORDER BY City ASC
```

City	No. Of Employees
Abingdon	1
Albany	4
Alexandria	2
Alhambra	1
Alpine	1
Altadena	2
Altamonte Springs	1
Anacortes	3
Arlington	1
Asheim	1
Atlanta	2
Auburn	1
Augsburg	2
Aurora	1
Auson Mournede	1
Aurora	1
Austell	1
Austin	2
Bad Soden	1
Baldwin Park	1
Baroda	1

Question 17

```

1 USE AdventureWorks2022;
2
3 SELECT DATEPART(YYYY,OrderDate) AS 'Year', SUM(TotalDue) AS 'Order
Amount'
4 FROM Sales.SalesOrderHeader
5 GROUP BY DATEPART(YYYY,OrderDate)
6 ORDER BY DATEPART(YYYY,OrderDate) ASC
7
8

```

Results		Messages	
Year	Order Amount		
1	2011	14155699.525	
2	2012	37675700.312	
3	2013	48965887.9632	
4	2014	22419498.3157	

Question 18

```

1 USE AdventureWorks2022;
2
3 SELECT DATEPART(YYYY,OrderDate) AS 'Year', SUM(TotalDue) AS 'Order
Amount'
4 FROM Sales.SalesOrderHeader
5 WHERE OrderDate<=2016
6 GROUP BY DATEPART(YYYY,OrderDate)
7 ORDER BY DATEPART(YYYY,OrderDate) ASC

```

Year	Order Amount

Question 19

```

1 USE AdventureWorks2022;
2
3 SELECT ContactTypeID, Name
4 FROM Person.ContactType
5 WHERE Name LIKE '%Manager'

```

Results		Messages	
ContactTypeID	Name		
1	Accounting Manager		
6	International Marketing Manager		
8	Marketing Manager		
13	Product Manager		
15	Purchasing Manager		
19	Sales Manager		

Question 20

```

1 SELECT pp.FirstName,pp.LastName, bc.BusinessEntityID
2 FROM Person.BusinessEntityContact bc
3 LEFT JOIN Person.ContactType ct
4 ON bc.ContactTypeID = ct.ContactTypeID
5 LEFT JOIN Person.Person pp
6 ON bc.BusinessEntityID = pp.BusinessEntityID
7 WHERE ct.Name = 'Purchasing Manager'
8 ORDER BY LastName,FirstName

```

ERROR WILL COME BACK

QUESTION 21

```
1 SELECT ROW_NUMBER() OVER(PARTITION BY pa.PostalCode ORDER BY
sp.SalesYTD DESC) AS 'Row Num', pp.LastName, sp.SalesYTD,
pa.PostalCode
2 FROM Person.BusinessEntityAddress ba
3 INNER JOIN Person.Address pa
4 ON ba.AddressID = pa.AddressID
5 INNER JOIN Sales.SalesPerson sp
6 ON ba.BusinessEntityID = sp.BusinessEntityID
7 INNER JOIN Person.Person pp
8 ON ba.BusinessEntityID = pp.BusinessEntityID
9 ORDER BY sp.SalesYTD DESC, pa.PostalCode ASC
```

	Row Num	LastName	SalesYTD	PostalCode
1	1	Mitchell	4251368.5497	84407
2	1	Pak	4116871.2277	B45 3HX
3	1	Blythe	3763178.1767	48226
4	1	Carson	3189418.3662	55802
5	1	Varkey Chudukati	3121616.3202	33000
6	1	Sarava	2604540.7172	K4B 1T7
7	1	Ito	2485835.6169	94109
8	1	Reiter	2315185.6111	38103
9	1	Valdez	1827066.7118	14111
10	1	Mensa-Annan	1576562.1968	02139
11	1	Campbell	1573012.9383	98004
12	1	Vargas	1453719.4653	T2P 2G8
13	1	Tsoflias	1421810.9242	3000
14	1	Ansman-Wolfe	1352577.1325	97205
15	1	Jiang	559697.5639	98052
16	1	Alberts	519905.932	98055
17	1	Ahola	172834.4612	090111

Question 22

```
1 SELECT ct.ContactTypeID, ct.Name, COUNT(ct.ContactTypeID) AS 'Number
of Contacts'
2 FROM Person.BusinessEntityContact bc
3 LEFT JOIN Person.ContactType ct
4 ON bc.ContactTypeID = ct.ContactTypeID
5 GROUP BY ct.ContactTypeID, ct.Name
6 HAVING COUNT(ct.ContactTypeID) >= 100
7 ORDER BY COUNT(ct.ContactTypeID) DESC
```

ContactTypeID	Name	Number of Contacts
11	Owner	266
15	Purchasing Manager	245
14	Purchasing Agent	242

Question 23

```
1 SELECT FORMAT( RateChangeDate,'yyyy-MM-dd') AS 'fromdate',
2 (FirstName+ ' ' + LastName + ' ' + ',' + MiddleName) AS 'Fullname', Rate * 40 AS 'Weekly
rate'
3 FROM HumanResources.EmployeePayHistory ep
4 INNER JOIN Person.Person pp
5 ON ep.BusinessEntityID = pp.BusinessEntityID
6 WHERE FirstName IS NOT NULL AND LastName IS NOT NULL AND MiddleName IS NOT NULL
7 ORDER BY 'Fullname' ASC
```

fromdate	Fullname	Weekly rate
2009-02-13	Alan Brewer,J	640.00
2008-12-06	Alejandro McGuire,E	600.00
2009-02-06	Alex Nayberg,M	400.00
4	Alice Ciccu,O	440.00
5	Any Alberts,E	1924.04
6	Andreas Berglund,T	423.076
7	Andrew Cencini,M	400.00
8	Andrew Hill,R	1000.00
9	Andy Ruth,M	380.00
10	Angela Barbirol,W	440.00
11	Anibal Sousa,T	560.00
12	Annette Hill,L	510.00
13	Annik Stahl,O	498.00
14	Arvind Rao,B	730.768
15	Ashvin Sharma,R	1298.076
16	Barbara Decker,S	560.00

Question 24

```
1 SELECT *
```

```

2 FROM (SELECT ROW_NUMBER() OVER( PARTITION BY (FirstName+ ' ' +
LastName +' ' + ','+MiddleName) ORDER BY FORMAT(
RateChangeDate,'yyyy-MM-dd')DESC) AS Rowno,
3 FORMAT( RateChangeDate,'yyyy-MM-dd') AS fromdate,
4 (FirstName+ ' ' + LastName +' ' + ','+MiddleName) AS Fullname,
5 Rate * 40 AS 'Weekly rate'
6 FROM HumanResources.EmployeePayHistory ep
7 INNER JOIN Person.Person pp
8 ON ep.BusinessEntityID = pp.BusinessEntityID
9 WHERE FirstName IS NOT NULL AND LastName IS NOT NULL AND MiddleName IS
NOT NULL
10 ) AS tbl
11 WHERE Rowno =1
12 ORDER BY Fullname

```

	fromdate	Fullname	Weekly rate
1	2009-02-13	Alan Brewer,J	640.00
2	2008-12-06	Alejandro McGuire,E	600.00
3	2009-02-08	Alex Nayberg,M	400.00
4	2008-12-07	Alice Ciscu,O	440.00
5	2012-04-16	Any Alberts,E	1924.04
6	2009-02-02	Andreas Berglund,T	423.076
7	2009-03-06	Andrew Cencini,M	400.00
8	2009-02-22	Andrew Hill,R	1000.00
9	2009-01-31	Andy Ruth,M	380.00
10	2009-01-20	Angela Barbarol,W	440.00
11	2009-02-23	Anibal Souza,T	560.00
12	2010-12-06	Annette Hill,L	510.00
13	2008-12-17	Annik Stahl,O	498.00
14	2009-02-28	Arvind Rao,B	730.768
15	2008-12-04	Ashvin Sharma,R	1298.076
16	2009-01-22	Barbara Decker,S	560.00

Question 25

```

1 SELECT SalesOrderID,ProductID,
2 OrderQty,
3 SUM(OrderQty) OVER(PARTITION BY SalesOrderID)AS 'Sum',
4 COUNT(OrderQty)OVER(PARTITION BY SalesOrderID) AS'Total Qunatity',
5 AVG(OrderQty) OVER(PARTITION BY SalesOrderID) AS 'Average',
6 MIN(OrderQty) OVER(PARTITION BY SalesOrderID) AS 'Min',
7 MAX(OrderQty) OVER(PARTITION BY SalesOrderID) AS 'Max'
8 FROM Sales.SalesOrderDetail
9 WHERE SalesOrderID = 43659 OR SalesOrderID = 43664
10 GROUP BY SalesOrderID,ProductID, OrderQty
11

```

SalesOrderID	ProductID	OrderQty	Sum	Total Qunatity	Average	Min	Max
1 43659	709	6	26	12	2	1	6
2 43659	711	4	26	12	2	1	6
3 43659	712	2	26	12	2	1	6
4 43659	714	3	26	12	2	1	6
5 43659	716	1	26	12	2	1	6
6 43659	771	1	26	12	2	1	6
7 43659	772	1	26	12	2	1	6
8 43659	773	2	26	12	2	1	6
9 43659	774	1	26	12	2	1	6
10 43659	776	1	26	12	2	1	6
11 43659	777	3	26	12	2	1	6
12 43659	778	1	26	12	2	1	6
13 43664	714	1	14	8	1	1	4
14 43664	716	1	14	8	1	1	4
15 43664	771	3	14	8	1	1	4
16 43664	772	1	14	8	1	1	4
17 43664	773	1	14	8	1	1	4