# Q1:

### 输入:

SELECT CategoryName FROM Category ORDER BY CategoryName;

### 输出:



# Q2:

### 输入:

```
1 SELECT DISTINCT ShipName,SUBSTR(ShipName,0,instr(ShipName, '-')) FROM "Order"
2 WHERE ShipName LIKE '%-%'
```

### 3 ORDER BY ShipName;

信息 结果 1	
ShipName	SUBSTR(ShipName, 0, instr(ShipName, '-'))
Bottom-Dollar Markets	Bottom
Chop-suey Chinese	Chop
GROSELLA-Restaurante	GROSELLA
HILARION-Abastos	HILARION
Hungry Owl All-Night Grocers	Hungry Owl All
LILA-Supermercado	LILA
LINO-Delicateses	LINO
QUICK-Stop	QUICK
Save-a-lot Markets	Save

# Q3:

## 输入:

```
1   CREATE TABLE Q3 AS
2   SELECT ID, ShipCountry, 'NorthAmerica' AS place
3   From "Order"
4   WHERE ShipCountry == 'USA' OR ShipCountry == 'Mexico' OR ShipCountry == 'Canada';
5
6
7   INSERT INTO Q3
8   SELECT ID, ShipCountry, 'OtherPlace' AS place
9   From "Order"
10   WHERE ShipCountry <> 'USA' OR ShipCountry <> 'Mexico' OR ShipCountry <> 'Canada';
11
12   SELECT * FROM Q3
13   ORDER BY ID;
```

Id	ShipCountry	place
10248	248 France OtherPlace	
10249	Germany	OtherPlace
10250	Brazil	OtherPlace
10251	France	OtherPlace
0252	Belgium	OtherPlace
10253	Brazil	OtherPlace
10254	Switzerland	OtherPlace
10255	Switzerland	OtherPlace
10256	Brazil	OtherPlace
10257	Venezuela	OtherPlace
10258	Austria	OtherPlace
10259	Mexico	NorthAmerica
10259	Mexico	OtherPlace
10260	Germany	OtherPlace
10261	Brazil	OtherPlace
10262	USA	NorthAmerica
10262	USA	OtherPlace
10263	Austria	OtherPlace
10264	Sweden	OtherPlace
10265	France	OtherPlace

## Q4:

### 输入:

```
1 SELECT s.CompanyName,ROUND(CAST(late.num AS Double)/(inall.num)*100,2) AS percent
3 ☐ (SELECT count(*) AS num, ShipVia FROM "Order"
4 GROUP BY ShipVia)AS inall,
6 □ (SELECT count(*) AS num, ShipVia FROM "Order"
7 WHERE RequiredDate<ShippedDate
8 GROUP BY ShipVia)AS late,
10 "Shipper" AS s
11
12 WHERE inall.ShipVia = late.ShipVia
AND s.id = inall.ShipVia
14 LORDER BY ROUND(CAST(late.num AS Double)/(inall.num)*100,2) DESC
```

#### 输出:

	CompanyName	percent
Þ	Federal Shipping	23.61
	Speedy Express	23.46
	United Package	23.44

## Q5:

## 输入:

```
1 SELECT c.CategoryName, count(*) AS num, ROUND(AVG(p.UnitPrice),2) AS aver, MIN(p.UnitPrice) AS min, MAX(p.UnitPrice) AS max, SUM(p.UnitsOnOrder) AS Ordernum FROM "Product" AS p, "Category" AS c

WHERE c.Id = p.CategoryId

4 GROUP BY p.CategoryId

5 ORDER BY c.Id
```

CategoryName	num	aver	min	max	Ordernum
Beverages	12	37.98	4.5	263.5	60
Condiments	12	23.06	10	43.9	170
Confections	13	25.16	9.2	81	180
Dairy Products	10	28.73	2.5	55	140
Grains/Cereals	7	20.25	7	38	90
Meat/Poultry	6	54.01	7.45	123.79	0
Produce	5	32.37	10	53	20
Seafood	12	20.68	6	62.5	120

# Q6:

### 输入:

```
1 SELECT ProductName, CompanyName, ContactName
2 FROM(
3 SELECT p.Id AS ProductId, p.ProductName, od.OrderId, MIN(o.OrderDate) AS OrderDate, o.CustomerId, c.CompanyName, c.ContactName
4 FROM "Product" AS p, "OrderDetail" AS od, "Order" AS o, "Customer" AS c
WHERE p.Discontinued = 1 AND od.ProductId = p.Id AND o.ID = od.OrderId AND c.ID = o.CustomerId
GROUP BY ProductId
-ORDER BY ProductName)
```

#### 输出:

ProductName	CompanyName	ContactName
Alice Mutton	Consolidated Holdings	Elizabeth Brown
Chef Anton's Gumbo Mix	Piccolo und mehr	Georg Pipps
Guaraná Fantástica	Piccolo und mehr	Georg Pipps
Mishi Kobe Niku	Old World Delicatessen	Rene Phillips
Perth Pasties	Piccolo und mehr	Georg Pipps
Rössle Sauerkraut	Piccolo und mehr	Georg Pipps
Singaporean Hokkien Fried Mee	Vins et alcools Chevalier	Paul Henriot
Thüringer Rostbratwurst	Piccolo und mehr	Georg Pipps

# Q7:

### 输入:

```
1 SELECT *, ROUND(JULIANDAY(OrderDate)-JULIANDAY(Previous),2) AS Difference
2 □ FROM(
3 SELECT Id,OrderDate,LAG(OrderDate,1,'2012-07-22 23:11:15') over(ORDER BY OrderDate) AS Previous
4 FROM "Order"
5 WHERE CustomerId = 'BLONP'
6 ORDER BY OrderDate
7 LIMIT 10)
```

Id		OrderDate	Previous	Difference
	16766	2012-07-22 23:11:15	2012-07-22 23:11:15	0.0
	10265	2012-07-25	2012-07-22 23:11:15	2.03
	12594	2012-08-16 12:35:15	2012-07-25	22.52
	20249	2012-08-16 16:52:23	2012-08-16 12:35:15	0.18
	20882	2012-08-18 19:11:48	2012-08-16 16:52:23	2.1
	18443	2012-08-28 05:34:03	2012-08-18 19:11:48	9.43
	10297	2012-09-04	2012-08-28 05:34:03	6.77
	11694	2012-09-17 00:27:14	2012-09-04	13.02
	25613	2012-09-18 22:37:15	2012-09-17 00:27:14	1.92
	17361	2012-09-19 12:13:21	2012-09-18 22:37:15	0.57

## Q8:

## 输入:

```
TRUIN:

1 CREATE TABLE QB AS
2 SELECT CompanyName, CustomerId, ROUND(SUM(cost),2) AS Expenditures
3 SPROW(
4 SELECT od. OrderId, SUM(od.Quantity*od.UnitPrice) AS Cost, c.Id AS CustomerId, c.CompanyName
5 FROW "OrderPotail" AS od, "Order" AS o, "Customer" AS c
6 MANERE o.Id = od.OrderId AND c.Id = o.CustomerId
7 GROUP BY CustomerId
9 ORDER BY Expenditures;
10
11 INSERT INTO QB
12 SELECT MULL, CustomerId, Cost
13 SPROW(
14 SELECT od.OrderId, SUM(od.Quantity*od.UnitPrice) AS Cost, c.Id AS CustomerId, NULL
15 FROW "OrderDetail" AS od, "Order" AS o, "Customer" AS c
16 SELECT ID FROM "CustomerId NOT IN(
17 SELECT ID FROM "CustomerId
18 }
19 }
19 }
20
21 SELECT CompanyName, CustomerId, Expenditures
22 SPROW(
22 SELECT CompanyName, CustomerId, Expenditures
23 FROW(
24 FROW QS
25 SELECT IFMULL(CompanyName, 'MISSING_NAME') AS CompanyName, CustomerId, ROUND(Expenditures, 2) AS Expenditures, NTILE(4) OVER(ORDER BY Expenditures) AS g
15 MANERE g = 1
15 ANDER BY Expenditures)
16 MANERE G = 1
```

### 输出:

CompanyName	CustomerId	Expenditures
Trail's Head Gourmet Provisioners	TRAIH	3874502.02
Blondesddsl père et fils	BLONP	3879728.69
MISSING_NAME	ALFKI	3896397.05
Around the Horn	AROUT	4395636.28
Hungry Owl All-Night Grocers	HUNGO	4431457.1
Bon app	BONAP	4485708.49
Bólido Comidas preparadas	BOLID	4520121.88
Galería del gastrónomo	GALED	4533089.9
FISSA Fabrica Inter. Salchichas S.A.	FISSA	4554591.02
Maison Dewey	MAISD	4555931.37
Cactus Comidas para llevar	CACTU	4559046.87
Spécialités du monde	SPECD	4571764.89
Magazzini Alimentari Riuniti	MAGAA	4572382.35
Toms Spezialitäten	TOMSP	4628403.36
Split Rail Beer & Ale	SPLIR	4641383.53
Santé Gourmet	SANTG	4647668.15
Morgenstern Gesundkost	MORGK	4676234.2
White Clover Markets	WHITC	4681531.74
La corne d'abondance	LACOR	4724494.22
Victuailles en stock	VICTE	4726476.33
Lonesome Pine Restaurant	LONEP	4735780.66
Bottom-Dollar Markets	BOTTM	4738375.12

选中的部分为题中所说的特殊部分

## Q9:

### 输入:

```
1 SELECT RegionDescription, FirstName, LastName, MAX(BirthDate) AS BirthDate
2 □ FROM(
3 SELECT r.ID AS RegionId, r.RegionDescription, t.TerritoryDescription, t.Id AS TerritoryId, et.EmployeeId, e.FirstName, e.BirthDate
FROM Region AS r, Territory AS t, EmployeeTerritory AS et, Employee as e
WHERE r.id = t.RegionId AND et.TerritoryId = t.Id AND e.Id = et.EmployeeId
ORDER BY RegionId)
GROUP BY RegionId

GROUP BY RegionId
```

#### 输出:

RegionDescription	FirstName	LastName	BirthDate
Eastern	Steven	Buchanan	1987-03-04
Western	Michael	Suyama	1995-07-02
Northern	Anne	Dodsworth	1998-01-27
Southern	Janet	Leverling	1995-08-30

## Q10:

#### 输入:

```
1 SELECT GROUP_CONCAT(ProductName) AS Output
2 FROM(
3 SELECT p.ProductName
4 FROM OrderDetail AS o, Product AS p
5 WHERE OrderId IN(
6 SELECT Id
7 FROM "Order"
8 WHERE CustomerId = 'QUEEN' AND OrderDate < '2014-12-26' AND OrderDate > '2014-12-24')
9 AND o.ProductId = p.ID
10 ORDER BY ProductId)
```

### 输出:

Output

F Mishi Kobe Niku, NuNuCa Nuß-Nougat-Creme, Schoggi Schokolade, Mascarpone Fabioli, Sasquatch Ale, Boston Crab Meat, Manjimup Dried Apples, Longlife Tofu, Lakkalikööri