

HOMEWORK 1

学号: 2020141460346

姓名: 李天夫

日期: 2022 - 10 - 24

Question 1

```
SELECT DISTINCT ShipName, SUBSTR(ShipName,1,INSTR(ShipName,'-')-1) as "Before-"
FROM "Order"
WHERE ShipName like '%-%'
ORDER BY ShipName
```

homework1

main

运行 • 停止 解释

```
1 SELECT DISTINCT ShipName, SUBSTR(ShipName,1,INSTR(ShipName,'-')-1) AS "Before-"
2 FROM "Order"
3 WHERE ShipName like '%-%'
4 ORDER BY ShipName
5
```

信息 摘要 结果 1

ShipName	Before-
Bottom-Dollar Markets	Bottom
Chop-suey Chinese	Chop
GROSELLA-Restaurante	GROSELLA
HILARION-Abastos	HILARION
Hungry Owl All-Night Gro	Hungry Owl All
LILA-Supermercado	LILA
LINO-Delicatesses	LINO
QUICK-Stop	QUICK
Save-a-lot Markets	Save

Question 2

```
SELECT Id,
       ShipCountry,
       iif(ShipCountry in ('USA','Canada','Mexico'),'NorthAmerica','OtherPlace') as Region
FROM "Order"
WHERE Id >= 15445
ORDER BY Id
LIMIT 20
```

homework1

main

运行

停止

解释

```

7  -- 2
8  SELECT Id,
9         ShipCountry,
10        iif(ShipCountry in ('USA','Canada','Mexico'),'NorthAmerica','OtherPlace') as Region
11 FROM "Order"
12 WHERE Id >= 15445
13 ORDER BY Id
14 LIMIT 20

```

信息

摘要

结果 1

Id	ShipCountry	Region
15445	France	OtherPlace
15446	Italy	OtherPlace
15447	Portugal	OtherPlace
15448	Argentina	OtherPlace
15449	Portugal	OtherPlace
15450	Venezuela	OtherPlace
15451	Brazil	OtherPlace
15452	France	OtherPlace
15453	France	OtherPlace
15454	Canada	NorthAmerica
15455	USA	NorthAmerica
15456	France	OtherPlace
15457	Mexico	NorthAmerica
15458	USA	NorthAmerica
15459	Germany	OtherPlace
15460	Argentina	OtherPlace
15461	Austria	OtherPlace
15462	Austria	OtherPlace
15463	Finland	OtherPlace
15464	Brazil	OtherPlace

Question 3

```

SELECT S.CompanyName, ROUND(100*((SELECT COUNT(OO.ShipVia)
                                FROM "Order" OO
                                WHERE OO.ShippedDate > OO.RequiredDate
                                AND OO.ShipVia = O.ShipVia)
+0.0)/COUNT(O.ShipVia),2) as "Precent"
FROM Shipper S, "Order" O
WHERE S.Id = O.ShipVia
GROUP BY O.ShipVia

```

```
--
17 -- 3
18 SELECT S.CompanyName, ROUND(100*((SELECT COUNT(O0.ShipVia)
19     FROM "Order" O0
20     WHERE O0.ShippedDate > O0.RequiredDate
21     AND O0.ShipVia = O.ShipVia)
22     +0.0)/COUNT(O.ShipVia),2) as "Precent"
23 FROM Shipper S, "Order" O
24 WHERE S.Id = O.ShipVia
25 GROUP BY O.ShipVia
--
```

信息 摘要 结果 1

CompanyName	Precent
Speedy Express	23.46
United Package	23.44
Federal Shipping	23.61

Question 4

```
SELECT C.CategoryName,
       COUNT(*) as "NUM",
       ROUND(AVG(UnitPrice),2) as "AVG", MIN(UnitPrice) as "MIN", MAX(UnitPrice) as "MAX",
       SUM(UnitsOnOrder) as "TOTAL"
FROM Product P, Category C
WHERE P.CategoryId = C.Id
GROUP BY C.Id
HAVING COUNT(*) > 10
ORDER BY C.Id
```

```
--
27 -- 4
28 SELECT C.CategoryName,
29     COUNT(*) as "NUM",
30     ROUND(AVG(UnitPrice),2) as "AVG", MIN(UnitPrice) as "MIN", MAX(UnitPrice) as "MAX",
31     SUM(UnitsOnOrder) as "TOTAL"
32 FROM Product P, Category C
33 WHERE P.CategoryId = C.Id
34 GROUP BY C.Id
35 HAVING COUNT(*) > 10
36 ORDER BY C.Id
37
--
```

信息 摘要 结果 1

CategoryName	NUM	AVG	MIN	MAX	TOTAL
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
Seafood	12	20.68	6	62.5	120

Question 5

```
SELECT P.ProductName,
       FIRST_VALUE(C.CompanyName) OVER(PARTITION BY P.Id
```

```

ORDER BY julianday(O.OrderDate) ASC) as
"CompanyName",
FIRST_VALUE(C.ContactName) OVER(PARTITION BY P.Id
ORDER BY julianday(O.OrderDate) ASC) as
"ContactName"
FROM Product P, Customer C, "Order" O, OrderDetail OD
WHERE P.Id = OD.ProductId and OD.OrderId = O.Id and O.CustomerId = C.Id and
P.Discontinued = 1 --and
/*O.OrderDate = (SELECT MIN(OO.OrderDate)
FROM Product PP, Customer CC, "Order" OO, OrderDetail OOD
WHERE PP.Id = OOD.ProductId and OOD.OrderId =
OO.Id and OO.CustomerId = CC.Id and
PP.Id = P.Id and PP.Discontinued = 1
GROUP BY PP.Id)*/

GROUP BY P.Id
ORDER BY P.ProductName

```

保存 查询创建工具 美化 SQL 代码段 文本 导出结果 创建图表

homework1 main 运行 停止 解释

```

38 -- 5
39 SELECT P.ProductName,
40 FIRST_VALUE(C.CompanyName) OVER(PARTITION BY P.Id
41 ORDER BY datetime(O.OrderDate) ASC) as "CompanyName",
42 FIRST_VALUE(C.ContactName) OVER(PARTITION BY P.Id
43 ORDER BY datetime(O.OrderDate) ASC) as "ContactName"
44 FROM Product P, Customer C, "Order" O, OrderDetail OD
45 WHERE P.Id = OD.ProductId and OD.OrderId = O.Id and O.CustomerId = C.Id and
46 P.Discontinued = 1 --and
47 /*O.OrderDate = (SELECT MIN(OO.OrderDate)
48 FROM Product PP, Customer CC, "Order" OO, OrderDetail OOD
49 WHERE PP.Id = OOD.ProductId and OOD.OrderId = OO.Id and OO.CustomerId = (
50 PP.Id = P.Id and PP.Discontinued = 1
51 GROUP BY PP.Id)*/
52 GROUP BY P.Id
53 ORDER BY P.ProductName
54

```

信息 摘要 结果 1

ProductName	CompanyName	ContactName
▶ Alice Mutton	Blondesddsl père et fils	Frédérique Cîteaux
Chef Anton's Gumbo Mix	Ernst Handel	Roland Mendel
Guaraná Fantástica	Chop-suey Chinese	Yang Wang
Mishi Kobe Niku	Wellington Importadora	Paula Parente
Perth Pasties	Wellington Importadora	Paula Parente
Rössle Sauerkraut	Morgenstern Gesundkost	Alexander Feuer
Singaporean Hokkien Fried Mee	Vins et alcools Chevalier	Paul Henriot
Thüringer Rostbratwurst	GROSELLA-Restaurante	Manuel Pereira

Question 6

```

SELECT Id, OrderDate,
       LAG(OrderDate,1,OrderDate) OVER (ORDER BY OrderDate ASC) as "PrevOrderDate",
       ROUND(JULIANDAY(OrderDate)-JULIANDAY(LAG(OrderDate,1,OrderDate)
                                               OVER (ORDER BY OrderDate ASC)),2)
       as "Difference"

FROM "Order"
WHERE CustomerId = 'BLONP'
ORDER BY OrderDate ASC
LIMIT 10

```

```

55 -- 6
56 SELECT Id, OrderDate,
57        LAG(OrderDate,1,OrderDate) OVER (ORDER BY OrderDate ASC) as "PrevOrderDate",
58        ROUND(JULIANDAY(OrderDate)-JULIANDAY(LAG(OrderDate,1,OrderDate) OVER (ORDER BY OrderDate ASC)),2) as "Difference"
59 FROM "Order"
60 WHERE CustomerId = 'BLONP'
61 ORDER BY OrderDate ASC
62 LIMIT 10
63
64

```

信息	摘要	结果 1	
Id	OrderDate	PrevOrderDate	Difference
16766	2012-07-22 23:11:15	2012-07-22 23:11:15	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

Question 7

```

WITH expenditures as(SELECT IFNULL(C.CompanyName,'MISSING_NAME')
"CompanyName",O.CustomerId,ROUND(SUM(OD.Quantity*OD.UnitPrice),2) "TotalExpenditure"
FROM "Order" O
INNER JOIN OrderDetail OD on od.OrderId = O.Id
LEFT JOIN Customer C on C.Id = O.CustomerId
GROUP BY O.CustomerId),
quartiles as (SELECT *,NTILE(4) OVER (ORDER BY TotalExpenditure ASC) "ExpenditureQuartile"
FROM expenditures)
SELECT CompanyName,CustomerId,TotalExpenditure
FROM quartiles
WHERE ExpenditureQuartile = 1
ORDER BY TotalExpenditure ASC

```

homework1

main

运行 停止 解释

```

106 -- GROUP BY Id
107 -- 上面的全不要了
108 WITH expenditures as (SELECT IFNULL(C.CompanyName, 'MISSING_NAME') "CompanyName", O.CustomerId, ROUND(SUM(OD.Quantity*OD.UnitPrice), 2) "TotalExpenditure"
109                        FROM "Order" O
110                        INNER JOIN OrderDetail OD on od.OrderId = O.Id
111                        LEFT JOIN Customer C on C.Id = O.CustomerId
112                        GROUP BY O.CustomerId),
113 quartiles as (SELECT *, NTILE(4) OVER (ORDER BY TotalExpenditure ASC) "ExpenditureQuartile"
114              FROM expenditures)
115 SELECT CompanyName, CustomerId, TotalExpenditure
116 FROM quartiles
117 WHERE ExpenditureQuartile = 1
118 ORDER BY TotalExpenditure ASC

```

信息

摘要

结果 1

CompanyName	CustomerId	TotalExpenditure
MISSING_NAME	DUMO	1615.9
MISSING_NAME	OCEA	3460.2
MISSING_NAME	ANTO	7515.35
MISSING_NAME	QUEE	30226.1
Trail's Head Gourmet Provisio	TRAIH	3874502.02
Blondesddsl père et fils	BLONP	3879728.69
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	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

Question 8

```

SELECT RegionDescription, FirstName, LastName, bday
FROM (SELECT RegionId AS
rid, EmployeeId, FirstName, LastName, Birthdate, MAX(Employee.Birthdate) AS bday
      FROM Employee INNER JOIN EmployeeTerritory ON Employee.Id =
EmployeeTerritory.EmployeeId
      INNER JOIN Territory ON TerritoryId = Territory.Id
      GROUP BY RegionId)
INNER JOIN Region ON Region.Id = rid
GROUP BY EmployeeId
ORDER BY rid

```

对象

home1 @main (homework1) -...Employee @main (homework...Region @main (homework1) -...EmployeeTerritory @main (ho...Order @m

保存

查询创建工具

美化 SQL

代码段

文本

导出结果

创建图表

homework1

main

运行已选择的

停止

解释已选择的

```
137
138 -- 8
139 SELECT RegionDescription, FirstName, LastName, bday
140 FROM (SELECT RegionId AS rid, EmployeeId, FirstName, LastName, Birthdate, MAX(Employee.Birthdate) AS bday
141       FROM Employee INNER JOIN EmployeeTerritory ON Employee.Id = EmployeeTerritory.EmployeeId
142              INNER JOIN Territory ON TerritoryId = Territory.Id
143       GROUP BY RegionId)
144 INNER JOIN Region ON Region.Id = rid
145 GROUP BY EmployeeId
146 ORDER BY rid
147
```

信息

摘要

结果 1

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