What is Database?

A database is a separate application that stores a collection of data. Each database

has one or more distinct APIs for creating, accessing, managing, searching and

replicating the data it holds.

Other kinds of data stores can be used, such as files on the file system or large hash

tables in memory, but data fetching and writing would not be so fast and easy with

those types of systems.

So nowadays, we use relational database management systems (RDBMS) to store

and manage huge volume of data. This is called relational database because all the

data is stored into different tables and relations are established using primary keys or

other keys known as foreign keys.

A Relational DataBase Management System (RDBMS) is a software that:

Enables you to implement a database with tables, columns and indexes.

Guarantees the Referential Integrity between rows of various tables.

Updates the indexes automatically.

Interprets an SQL query and combines information from various tables.

RDBMS Terminology:

Before we proceed to explain MySQL database system, let's revise few definitions related to database.

Database: A database is a collection of tables, with related data.

Table: A table is a matrix with data. A table in a database looks like a simple

spreadsheet.

Column: One column (data element) contains data of one and the same kind, for

example the column postcode.

Row: A row (= tuple, entry or record) is a group of related data, for example the data

of one subscription.

Redundancy: Storing data twice, redundantly to make the system faster.

Primary Key: A primary key is unique. A key value can not occur twice in one table.

With a key, you can find at most one row.

Foreign Key: A foreign key is the linking pin between two tables.

create database retail;

use retail;

CREATE TABLE IF NOT EXISTS salespeople (

snum INT NOT NULL,

sname VARCHAR(30) NOT NULL,

city VARCHAR(30) NOT NULL,

comm DECIMAL(4,2) NOT NULL,

PRIMARY KEY (snum)

);

INSERT INTO salespeople VALUES (1001, 'Peel', 'London', 0.12);

Salespeople

SNUM SNAME CITY COMM

1001 Peel London .12

1002 Serres San Jose .13

1004 Motika London .11

1007 Rifkin Barcelona .15

1003 AxelRod New York .10

1005 Fran London .26

CREATE TABLE IF NOT EXISTS customer (

cnum INT NOT NULL,

cname VARCHAR(30) NOT NULL,

city VARCHAR(30) NOT NULL,

rating int not null,

snum int NOT NULL,

PRIMARY KEY (cnum),

FOREIGN KEY (snum) REFERENCES salespeople(snum)

);

INSERT INTO customer VALUES (2001, 'Hoffman', 'London',100, 1001);

Customers

CNUM CNAME CITY RATING SNUM

2001 Hoffman London 100 1001

2002 Giovanni Rome 200 1003

2003 Liu San Jose 200 1002

2004 Grass Berlin 300 1002

2006 Clemens London 100 1001

2008 Cisneros San Jose 300 1007

2007 Pereira Rome 100 1004

CREATE TABLE IF NOT EXISTS orders (

onum INT NOT NULL,

amt DECIMAL(7,2) NOT NULL,

odate Date NOT NULL,

cnum int NOT NULL,

PRIMARY KEY (onum),

FOREIGN KEY (cnum) REFERENCES customer(cnum)

);

INSERT INTO orders VALUES (3001, 18.69, '1996-03-10', 2008);

Orders

ONUM AMT ODATE CNUM

3001 18.69 10/03/96 2008

3003 767.19 10/03/96 2001

3002 1900.10 10/03/96 2007

3005 5160.45 10/03/96 2003

3006 1098.16 10/03/96 2008

3009 1713.23 10/04/96 2002

3007 75.75 10/04/96 2002

3008 4723.00 10/05/96 2006

3010 1309.95 10/06/96 2004

3011 9891.88 10/06/96 2006

show tables ;

describe orders;

Update clause

UPDATE table\_name SET field1=new-value1, field2=new-value2

[WHERE Clause]

Delete clause

DELETE FROM table\_name [WHERE Clause]

Queries

* List all the columns of the Salespeople table.  
  desc salespeople;
* List all customers with a rating of 100.

Select \* from customer where rating=100;

* Find all records in the Customer table with NULL values in the city column.

Find the largest order taken by each salesperson on each date.

Select \* from customer wheree city is null;

* Select a.onum,max(a.amt),a.odate,a.cnum,b.snum from orders a,customer b where a.snum=b.snum group by b.snum,a.odate;
* Arrange the Orders table by descending customer number.

Select \* from orders order by desc;

* Find which salespeople currently have orders in the Orders table.

Select distinct c.sname from orders a,customer b,salespeople c where a.cnum=b.cnum and b.snum=c.snum;

* List names of all customers matched with the salespeople serving them.

Select a.cname,b.sname from customer a,salespeople b where a.snum=b.snum;

* Find the names and numbers of all salespeople who had more than one customer.

Select a.snum,b.sname,count(\*) as cust\_count from customer a,salespeople b wheree a.snum=b.snum group by a.snum;

* Count the orders of each of the salespeople and output the results in descending order.

Select b.snum,c.sname,count(\*) as order\_count from orders a,customer b,salespeople c where a.cnum=b.cnum and b.snum=c.snum group by snum order by order\_count desc;

10. List the Customer table if and only if one or more of the customers in the Customer table are

located in San Jose.

Select \* from customer where (SELECT COUNT(\*) FROM customer where city=’SANJOSE’)>1;

11. Match salespeople to customers according to what city they lived in.

Select a.cname,a.city,b.sanme from customerr a,salespeople b where a.snum=b.snum and a.city=b.city;

12. Find the largest order taken by each salesperson.

Select asnum,a.sname,max(count) from salespeople a,customer b,orders c where a.cnum=b.cnum and b.snum=c.snum;

13. Find customers in San Jose who have a rating above 200.

Select cnum,cname from customer where city=’SANJOSE’ and raing>100;

14. List the names and commissions of all salespeople in London.

Select sname,comm from salespeople where city=’LONDON’;

15. List all the orders of salesperson Motika from the Orders table.

SELECT b.onum,b.odate,b.amt from customer a,order b where a.cnum=b.cnum and cname=’MOTIKA’;

16. Find all customers with orders on October 3.

Select a.cnum,a.cname from cusromer a,orders b where a.cnum=b.cnum and where odate=’1996/10/03’;

17. Give the sums of the amounts from the Orders table, grouped by date, eliminating all those

dates where the SUM was not at least 2000.00 above the MAX amount.

SELECT SUM(amt) FROM orders GROUP BY odate having SUM(amt)<(SELECT MAX(amt) FROM orders)+2000;

18. Select all orders that had amounts that were greater than at least one of the orders from

October 6.

Select onum from orders where amt>(select amt from orders where odate=’1996-04-10’ group by odate;

19. Write a query that uses the EXISTS operator to extract all salespeople who have customers

with a rating of 300.

SELECT a.snum,a.sname WHERE a.snum=b.snum and rating>=300;

20. Find all pairs of customers having the same rating.

SELECT a.cname,b.cname FROM customer a,customer b WHERE a.cname!=b.cname AND a.rating =100 AND b.rating=100 AND a.cname<b.cname;

21. Find all customers whose CNUM is 1000 above the SNUM of Serres.

Select cname from customer where cnum=1000+(select snum from salespeople where sname=’SERRES’);

22. Give the salespeople’s commissions as percentages instead of decimal numbers.

SELECT snum,sname,city concat(round(comm\*100),’%’) as comperc from salespeople;

23. Find the largest order taken by each salesperson on each date, eliminating those MAX orders

which are less than $3000.00 in value.

Select b.sname,c.odate,max(amt) from customer a,salespeople b,orders c where c.cnum=a.cnum and b.snum=a.snumgroup by b.sname having max(amt)<3000;

24. List the largest orders for October 3, for each salesperson.

Select b.sname,c.odate,max(amt) from customer a,salespeople b,orders c where c.cnum=a.cnum and b.snum=a.snumgroup by b.sname having date=’1996-10-10’;

25. Find all customers located in cities where Serres (SNUM 1002) has customers.

Select a.cname,a.city from customer a,salespeopleb,orders c where a.snum=b.snum and a.cnum=c.cnum b.sname=’SERRES’;

26. Select all customers with a rating above 200.00.

SELECT CNAME FROM customers where rating>200;

27. Count the number of salespeople currently listing orders in the Orders table.

Select count(distinct sname) from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum ;

28. Write a query that produces all customers serviced by salespeople with a commission above

12%. Output the customer’s name and the salesperson’s rate of commission.

Select a.cnmae,b.comm from customer a,salespeople b where a.snum=b.snum and b.comm>0.12;

29. Find salespeople who have multiple customers.

SELECT a.sname,b.cname,count(\*) FROM salespeople a,customer b WHERE a.snum=b.snum GROUP BY sname;

30. Find salespeople with customers located in their city.

SELECT a.sname,b.cname,a.city FROM salespeople a,customer b WHERE a.snum=b.snum GROUP BY city;

31. Find all salespeople whose name starts with ‘P’ and the fourth character is ‘l’.

SELECT sname FROM salespeople WHERE sname LIKE ‘P%L;

32. Write a query that uses a subquery to obtain all orders for the customer named Cisneros.

Assume you do not know his customer number.

SELECT \* FROM orders WHERE cnum=(SELECT cnum FROM customer WHERE cname='CISNEROS');

33. Find the largest orders for Serres and Rifkin.

SELECT a.sname,MAX(C.AMT) FROM salespeople a,customer b,orders c WHERE a.snum=b.snum AND b.cnum=c.cnum GROUP BY sname;

34. Extract the Salespeople table in the following order : SNUM, SNAME, COMMISSION, CITY.

SELECT snum,sname,comm,city FROM salespeople;

35. Select all customers whose names fall in between ‘A’ and ‘G’ alphabetical range.

SELECT \* FROM customers WHERE cname LIKE ‘A%’ OR cname LIKE ‘B%’ OR cname LIKE ‘C%’ OR cname LIKE ‘D%’ OR cname LIKE ‘E%’ OR cname LIKE ‘F%’ OR cname LIKE ‘G%’;

36. Select all the possible combinations of customers that you can assign.

37. Select all orders that are greater than the average for October 4.

SELECT amt FROM orders WHERE amt>(SELECT AVG(amt) FROM orders where odate=’1996-04-10);

38. Write a select command using a corelated subquery that selects the names and numbers of all

customers with ratings equal to the maximum for their city.

SELECT a.cnum,a.cname,a.city FROM customer a,(SELECT city,MAX(rating) FROM customer GROUP BY city)b WHERE a.city=b.city and a.rating=b.max(rating);

39. Write a query that totals the orders for each day and places the results in descending order.

Select odate,count(onum) from ordeers group by odate;

40. Write a select command that produces the rating followed by the name of each customer in

San Jose.

Select cname,rating from customers where city=’sanjose’;

41. Find all orders with amounts smaller than any amount for a customer in San Jose.

Select \* from orders where amt<(select min(amt) from orders b,customer a where a.cnum=b.snum and city=’sanjose’);

42. Find all orders with above average amounts for their customers.

Select \* from orders where amt >(select avg(amt) fom orders);

43. Write a query that selects the highest rating in each city.

Select city,max(rating) from customer group by city;

44. Write a query that calculates the amount of the salesperson’s commission on each order by a customer with a rating above 100.00.

Select b.comm,c.amt,b.sname,a.cname from customer a,salespeople b,orders c where a.cnum=c.cnum and a.snum=b.snum and a.rating>100;

45. Count the customers with ratings above San Jose’s average.

Select count(distinct cnum) from customers where city!=’sanjose’ and rating>(select avg(rating) from customer where city=’sanjose’ group by city);

46. Write a query that produces all pairs of salespeople with themselves as well as duplicate rows with the order reversed.

47. Find all salespeople that are located in either Barcelona or London.

Select sname from salepeople where city=’BARCELONA’ OR city=’london’;

48. Find all salespeople with only one customer.

Select b.sname from customer a,salespeople b where a.snum=b.snum group by a.snum having a.cname=1;

49. Write a query that joins the Customer table to itself to find all pairs of customers served by a single salesperson.

Select a.cname,b.cname fom customer a,customer b,slespeople c where a.snum=c.snum and b.snum=c.snum and .cname<b.cname;

50. Write a query that will give you all orders for more than $1000.00

Select \* from orders where amt>1000;

51. Write a query that lists each order number followed by the name of the customer who made that order.

Select a.cname,b.onum from customer a,orders b where a.cnum=b.cnum group by cname;

52. Write 2 queries that select all salespeople (by name and number) who have customers in their cities who they do not service, one using a join and one a corelated subquery. Which solution is more elegant?

Select b.sname,b.city from customer a,salespeople b where a.city=b.city and a.snum!=b.snum;

53. Write a query that selects all customers whose ratings are equal to or greater than ANY (in the SQL sense) of Serres’?

Select distinct a.cname from customer a,salespeople b where rating>any(select a.rating from customer a,salespeople b where a.snum=b.snum andb.sname=’SERRES’ group by b.snum);

54. Write 2 queries that will produce all orders taken on October 3 or October 4.

Select \* from orders where odate like’%-03-10’ or odate like=%=04-10’;

55. Write a query that produces all pairs of orders by a given customer. Name that customer and eliminate duplicates

Select distinct a.cname from customers a,orders b where a.cnum=c.cnum;

56. Find only those customers whose ratings are higher than every customer in Rome.

Select \* from customer where rating>(select rating from customer where city=’rome’;

57. Write a query on the Customers table whose output will exclude all customers with a rating <=

100.00, unless they are located in Rome.

58. Find all rows from the Customers table for which the salesperson number is 1001.

Select a.cname,a.cnum,a.rating,b.snum from salespeople a,customer b where a.snum=b.snum and sname=1001;

59. Find the total amount in Orders for each salesperson for whom this total is greater than the

amount of the largest order in the table.

Step 1:Select a.sname,sum(amt) from salespeople a,customer b,orders c where a.snum=b.snum and a.cnum=b.cnum ;

60. Write a query that selects all orders save those with zeroes or NULLs in the amount field.

61. Produce all combinations of salespeople and customer names such that the former precedes

the latter alphabetically, and the latter has a rating of less than 200.

62. List all Salespeople’s names and the Commission they have earned.

Select a.sname,a.comm,b.cname from salespeople a ,customer b, where a.snum=b.snum order by sname;

63. Write a query that produces the names and cities of all customers with the same rating as

Hoffman. Write the query using Hoffman’s CNUM rather than his rating, so that it would still be

usable if his rating changed.

64. Find all salespeople for whom there are customers that follow them in alphabetical order.

Select a.sname,b.cname from salespeople a,customer b where a.snum=b.snum group by sname;

65. Write a query that produces the names and ratings of all customers of all who have above

average orders.

66. Find the SUM of all purchases from the Orders table.

Select sum(amt) from orders;

67. Write a SELECT command that produces the order number, amount and date for all rows in

the order table.

Select onum,amt,odate from orders;

68. Count the number of nonNULL rating fields in the Customers table (including repeats).

69. Write a query that gives the names of both the salesperson and the customer for each order

after the order number.

Select a.sname,b.cname,c.onum from salespeople a,customer b,orders c where a.snum=b.sname where b.sname=c.sname group by sname;

70. List the commissions of all salespeople servicing customers in London.

Select a.comm ,a.sname from salespeople a,customer b where a.snum=b.snum and b.city=’london’;

71. Write a query using ANY or ALL that will find all salespeople who have no customers located in their city.

Select \* from salespeople a,customer b where a.snum=b.snum and a.city!=b.city;

72. Write a query using the EXISTS operator that selects all salespeople with customers located in

their cities who are not assigned to them.

73. Write a query that selects all customers serviced by Peel or Motika. (Hint : The SNUM field

relates the two tables to one another.)

select \* from salespeople a,customer b where a.snum=b.snum and a.sane=’motika’ OR a.sname=’peel’;

74. Count the number of salespeople registering orders for each day. (If a salesperson has more

than one order on a given day, he or she should be counted only once.)

select a.sname,c.odate from salespeople a,customer b,orders c where a,snum=b.snum and b.cnum=c.cnum and goup by odate;

75. Find all orders attributed to salespeople in London.

Select a.sname,c.odate,c.onum fom salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum and a.city=’LONDON’;

76. Find all orders by customers not located in the same cities as their salespeople.

SELECT a.sname,c.onum from customer a,salespeople b,orders c where a.snum=b.snum and b.cnum=c.cnum and a.city!=b.city;

77. Find all salespeople who have customers with more than one current order.

Select a.sname,b.cname,c.onum from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum ;

78. Write a query that extracts from the Customers table every customer assigned to a

salesperson who currently has at least one other customer (besides the customer being

selected) with orders in the Orders table.

79. Write a query that selects all customers whose names begin with ‘C’.

Select cname from customer where cname like’c%’;

80. Write a query on the Customers table that will find the highest rating in each city. Put the output

in this form : for the city (*city*) the highest rating is : (*rating*).

Select city,max(rating) from customer group by city;

81. Write a query that will produce the SNUM values of all salespeople with orders currently in the

Orders table (without any repeats).

Select a.snum,a.sname,c.onum from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum group by sname;

82. Write a query that lists customers in descending order of rating. Output the rating field first,

followed by the customer’s names and numbers.

Select cnum,cname,rating from customer where order by rating desc;

83. Find the average commission for salespeople in London.

Select avg(comm) from salespeople where city=’LONDON’;

84. Find all orders credited to the same salesperson who services Hoffman (CNUM 2001).

SELECT a.sname,b.cname,b.cnum,c.onum from salspeople a customer b, orders c where a.snum=b.snum and b.cnum=c.cnum and b.cname=’hoffman’;

85. Find all salespeople whose commission is in between 0.10 and 0.12 (both inclusive).

Select sname,snum,comm from salespeople where comm between 0.10 to 0.12;

86. Write a query that will give you the names and cities of all salespeople in London with a

commission above 0.10.

select snum,sname,comm from salespeople where rating>100 and city=’LONDON’;

87. What will be the output from the following query?

SELECT \* FROM ORDERS

where (amt < 1000 OR NOT (odate = 10/03/1996 AND cnum >

2003));

Displays all columns of orders where amt is less than 1000 or date=10/03/1996 and cnum>2003.

88. Write a query that selects each customer’s smallest order.

Select a.cname,b.onum,min(amt) from customer a,salespeople b where a.cnum=b.cnum group by a.cname;

89. Write a query that selects the first customer in alphabetical order whose name begins with G.

Select cname from customer where cname like’G%’ order by cname;

90. Write a query that counts the number of different nonNULL city values in the Customers table.

91. Find the average amount from the Orders table.

Select avg(amt) from orders;

92. What would be the output from the following query?

SELECT \* FROM ORDERS

WHERE NOT (odate = 10/03/96 OR snum > 1006) AND amt >=

1500);

Displays all columns of orders where odate isnot 10/03/1996 or snum is greater than 1006 and amt greater than and equla to 1500.

93. Find all customers who are not located in San Jose and whose rating is above 200.

Select cname from customer where city!=’SANJOSE’ and rating>200;

94. Give a simpler way to write this query :

SELECT snum, sname city, comm FROM salespeople

WHERE (comm > + 0.12 OR comm < 0.14);

95. Evaluate the following query :

SELECT \* FROM orders

WHERE NOT ((odate = 10/03/96 AND snum > 1002) OR amt > 2000.00);

96. Which salespersons attend to customers not in the city they have been assigned to?

Select a.sname,b.cname from salespeople a,customer b where a.snum=b.snum and a.city!=b.city;

97. Which salespeople get commission greater than 0.11 are serving customers rated less than

250?

Select a.sname ,comm from salespeople a,customer b where comm>0.11 and rating>250 group by sname;

98. Which salespeople have been assigned to the same city but get different commission

percentages?

99. Which salesperson has earned the most by way of commission?

Motika earned 209.

Select a.sname,round(comm\*amt) from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum order by sname;

100.Does the customer who has placed the maximum number of orders have the maximum rating?

Max orders placed by CISNEROS,CLEMENS,GIOVANI but cisneros has max rating.

Select a.cname,a.rating,count(\*) from customer a,orders b where a.cnum=b.cnum group by cname;

101.Has the customer who has spent the largest amount of money been given the highest rating?

No.Hoffman who spent largest amount of order has rating 100.

Select a.cname,a.rating,max(amt) from acustomer a,orders b where a.cnum=b.num ;

102.List all customers in descending order of customer rating.

Select cname,rating from customers order by rating desc;

103.On which days has Hoffman placed orders?

Select a.cname,b.odate from customer a,orders b where a.cnum=b.cnum and cname=’HOFFMAN’ group by cname;

104.Do all salespeople have different commissions?

Select a.sname,b.sname,a.comm from salespeople a,salespeople b where a.sname!=b.sname and a.sname<b.sname and a.comm!=b.comm order by a.sname;

105.Which salespeople have no orders between 10/03/1996 and 10/05/1996?

Select a.sname,c.odate from saleapeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum where odate between ‘1996-03-10’ and ‘1996-05-10’ group by sname;

106.How many salespersons have succeeded in getting orders?

Select a.sname,count(\*) from customer a,salespeople b,orders c where a.snum=b.snum and a.cnum=b.cnum group by amt;

107.How many customers have placed orders?

Select a.cname,count(\*) as no\_of\_cust from customer a,orders cwhere a.cnum=b.cnum group by cname;

108.On which date has each salesperson booked an order of maximum value?

SELECT a.sname,max(amt ) ,c.odate from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.cnum group by sname;

109.Who is the most successful salesperson?

SELECT b.snum,c.sname,sum(a.amt) as totalsales by sp FROM orders a customer b,salespeople c WHERE a.cnum=b.cnum AND b.snum=c.snum GROUP Byb.snum ORDER BY totalsalespeople by sp desc limit 1;

Most successful=CLEMENS.

110.Who is the worst customer with respect to the company?

HOFFMAN

SELECT a.cnum,cname,sum(a.amt) as totalspend FROM orders a,customer b WHERE a.cnum=b.cnum GROUP BY a.cnum ORDER BY totalspend limit 1;

111.Are all customers not having placed orders greater than 200 totally been serviced by

salespersons Peel or Serres?

select a.sname,b.cname,c.amt from salespeople a,customer b,orders c where a.snum=b.snum and b.cnum=c.num and amt<200;

ans is no.all customers not having placed orders greater than 200 totally been serviced by salespersons Peel or Serres

112.Which customers have the same rating?

SELECT a.cname,b.cname FROM customer a,customer b where a.cname!=b.cname AND a.cname>b.cname AND a.rating=b.rating;

SELECT cnum,cname,city,rating FROM customer GROUP BY rating ORDER BY rating;

113.Find all orders greater than the average for October 4th.

SELECT \* FROM orders WHERE amt>(SELECT AVG(rating) from customer WHERE city=’SANJOSE’);

114.Which customers have above average orders?

SELECT \* FROM order WHERE amt>(SELECT AVG(amt) FROM orders);

115.List all customers with ratings above San Jose’s average.

SELECT \* FROM customer where rating>(SELECT AVG(rating) FROM customer WHERE city=’SANJOSE’);

116.Select the total amount in orders for each salesperson for whom the total is greater than the

amount of the largest order in the table.

117.Give names and numbers of all salespersons who have more than one customer.

SELECT a.snum,a.sname,count(\*) ascust\_count FROM salespeople a,customer b WHERE a.snum=b.snum GROUP BY sname;

118.Select all salespersons by name and number who have customers in their city whom they

don’t service.

SELECT a.snum,a.sname,a.city,b.cname,b.city FROM salespeople a,customer b WHERE a.snum!=b.snum and a.city=b.city;

119.Which customers’ rating should be lowered?

Customer who purchased less CISNEROS and GIOVANNI.

SELECT a.cname,b.amt from customer a,orders where a.cnum=b.cnum group by amt;

120.Is there a case for assigning a salesperson to Berlin?

SELECT a.sname,b.city,b.cname FROM salespeople a,cutomer b WHERE a.snum=b.snum AND b.city=’BERLIN’;

YES ..salesperson SERRES is assigned to customer GRASS who is living in berlin.

121.Is there any evidence linking the performance of a salesperson to the commission that he or

she is being paid?

122.Does the total amount in orders by customer in Rome and London exceed the commission

paid to salespersons in London and New York by more than 5 times?

123.Which is the date, order number, amt and city for each salesperson (by name) for the

maximum order he has obtained?

SELECT a.sname,c.onum,c.odate,MAX(c.amt),b.city FROM salespeople a,customer b,orders c WHERE a.snum=b.snum and b.cnum=c.cnum GROUP BY sname;

124.Which salesperson(s) should be fired?

Who did less no of sales.

Select a.sname,amt from salespeople a,customer b,order c where a.snum=b.snum and b.cnum=c.cnum ;

So less sales done by RIFFKIN.So he should be fired.

125.What is the total income for the company?

SELECT SUM(amt) FROM orders;

126.What is the gross profit of the company?

SELECT(SELECT SUM(amt) FROM ORDERS)(SELECTsum(c.comm\*a.amt)as total\_comm FROM orders a,customer b,salespeople c WHERE a.cnum=b.cnum AND b.snum=c.snum);