

HAMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN

S. Y. B. C. A.

BCA -208 Advance Database Management System

Teaching Scheme (per week)		Examination Scheme					
Th. (hours)	Pr. (hours)	Internal		External		Total	
		Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)	Th. (marks)	Pr. (marks)
-	3	-	30	-	70	-	100

RDBMS PRACTICAL LIST:

Create following Three Tables.

1. Salesman

SNUM	SNAME	CITY	COMMISSION
1001	PIYUSH	LONDON	12%
1002	NIRAJ	SURAT	13%
1003	MITI	LONDON	11%
1004	RAJESH	BARODA	15%
1005	ANAND	NEW DELHI	10%
1006	RAM	PATAN	10%
1007	LAXMAN	BOMBAY	09%

SNUM : A Unique number assign to each salesman.

SNAME : The name of salesman.

CITY : The location of salesman. COMMISSION :

The salesman commission on order. **2. Customer**

CNUM	CNAME	CITY	RATING	SNUM
2001	HARDIK	LONDON	100	1001
2002	GITA	ROME	200	1003
2003	LAXIT	SURAT	200	1002
2004	GOVIND	BOMBAY	300	1002
2005	CHANDU	LONDON	100	1001
2006	CHAMPAK	SURAT	300	1007
2007	PRATIK	ROME	100	1004

CNUM : A Unique number assign to each customer. CNAME :

The name of customer. CITY : The location of customer.

RATING : A level of preference indicator given to this customer.

SNUM : A salesman number assign to this customer.

3. Order

ONUM	AMOUNT	ODATE	CNUM	SNUM
3001	18.69	10/03/99	2008	1007
3002	767.19	10/03/99	2001	1001
3003	1900.10	10/03/99	2007	1004
3004	5160.45	10/03/99	2003	1002
3005	1098.25	10/04/99	2008	1007
3006	1713.12	10/04/99	2002	1003
3007	75.75	10/05/99	2004	1002
3008	4723.00	10/05/99	2006	1001
3009	1309.95	10/05/99	2004	1002
3010	9898.87	10/06/99	2006	1001

ONUM : A Unique number assign to each Order. AMOUNT : Amount of order in Rs. ODATE : The date of order.

CNUM : The number of customer making the order. SNUM : The number of salesman credited with the sale.

Solve following request with the help of sql query .

1. Produce the order no ,a mount and date of all orders.
2. Give all the information about all the customers with salesman number 1001.
3. Display the information in the sequence of city, sname, snum, and Commission.
4. List of rating followed by the name of each customer in Surat.
5. List of snum of all salesmen with orders in order table without an duplicates.
6. List of all orders for more than Rs. 1000.
7. List out names and cities of all salesmen in London with co mmission above 10%
8. List all customers excluding those with rating <= 100 or they are located in Rome.
9. List all order for more than Rs. 1000 except the orders of snum,1006 of 10/03/97
10. List all orders taken on October 3rd or 4th or 6th 1997.
11. List all customers whose names begins with a letter 'C'
12. List all customers whose names begins with letter 'A' to 'G'
13. List all orders with zero or NULL amount.
14. Find out the largest orders of salesman 1002 and 1007.
15. Count all orders of 10-Mar-97.
16. Calculate the total amount ordered.
17. Calculate the average amount ordered.
18. Count the no. of salesmen currently having orders.
19. Find the largest order taken by each salesman on each date.
20. Find the largest order taken by each salesman on 10/03/1997.
21. Count the no. of different non NULL cities in the Customer table.
22. Find out each customer's smallest order.
23. Find out the customer in alphabetical order whose name begins with 'G'
24. Count the no. of salesmen registering orders for each day.
25. List all salesmen with their % of commission.
26. Display the no. of order for each day in the following format. dd -mon-yy.
27. Assume each salesperson has a 12% commission. Write a query on the order table that will produce the order number, salesman no and amount of commission for that order.
28. Find the highest rating in each city in the following format:
29. List all customers in descending order of rating.
30. Calculate the total of orders for each day.
31. Show the name of all customers with their salesman's name.
32. List all customers and salesmen who shared a same city.
33. List all orders with the names of their customer and salesman.
34. List all orders by the customers not located in the same city as their salesman.
35. List all customers serviced by salesman with commission above 12%.
36. Calculate the amount of the salesman commission on each order by customer with rating above 100.
37. Find all pairs of customers having the same rating with our duplication.
38. List all customers located in cities where salesman Niraj has customers.
39. find all pairs of customers served by a single salesman with the salesman's name and no.
40. List all salesmen who are living in the same city with out duplicate rows.
41. Produce the name and city of all the customers with the same rati as Hardik'.
42. Extract all orders of Miti.
43. Extract all orders of Baroda's salesmen.
44. Find all orders of the salesman who services 'Hardik'
45. List all orders that are greater than the average of April 10, 1997

46. Find all orders attributed to salesmen in 'London'.
47. List the commission of all salesmen serving customers in 'London'.
48. Find all customers whose cnum is 1000 above than the snum of Niraj.
49. Count the no. of customers with the rating above than the average of 'Surat'.
50. List all orders of the customer 'Chandresh'.
51. Produce the name and rating of all customers who have above average orders.
52. Find all customers with orders on 3rd Oct., 1997 using correlate sub query.
53. List the name and number of all salesmen who has more than Zero customer.
54. Calculate the total amount ordered on each day eliminating the days where the total amount was not at least Rs. 2000 above the maximum amount of that day.
55. Using correlated sub query find the name and number of all customer with rating equal to maximum for their city.
56. Select the name and number of all salesmen who have customers their cities.
57. find all salesmen who have customers with rating > 300
58. List all salesmen with customers located in their cities.
59. Find all salesmen for whom there are customers that follow them alphabetical order.
60. Find all customers having rating greater than any customer in 'Rome'.
61. List all order that has amount greater than at least one of the orders from 6th October, 1997 .
62. Find all orders with amounts smaller than any amount for a customer in 'Rome'.
63. Find all the customers who have greater rating than every customer in 'Rome'.
64. Select all customers whose rating doesn't match with any rating customer of 'Surat '.
65. List all customers whose ratings are equal to or greater than ANY 'Niraj'
66. Find out which salesman produce largest and smallest orders on each date.
67. Create a union of two queries that shows the names, cities and ratings of all customers. Those with rating of ≥ 200 should display 'HIGH RATING' and those with < 200 should display 'LOW RATING'.
68. Insert a row into salesman table with the values snum is 100 salesman name is Rakesh, city is unknown and commission is 14% .
69. Insert a row in to customer table with values London, Pratik a 2005 for the columns city, name and number.
70. Create another table London staff having same structure as salesman table.
71. Insert all the rows of salesman table with city London in the London staff table.
72. Create another table Day totals with two attributes date and total and insert rows into this table from order table.
73. Create a duplicate of the salesman table with a name Multicust. Now delete all the rows from the salesman table.
74. Get back all the rows of salesman table from its duplicate table.
75. Remove all orders from customer Chandresh from the orders table.
76. Set the ratings of all the customers of Piyush to 400.
77. Increase the rating of all customers in Rome by 100.
78. Salesman Miti has resigned. Reassign her number to a new salesman Gopal whose city is Bombay and commission is 10%.
79. Double the commission of all salesmen of London.
80. Set ratings for all customers in London to NULL.
81. Suppose we have a table called sales Manager with the same definition as Salesmen table. Company decides to promote salesmen having total order more than 5000 to Sales Manager. Fill up the Sales Manager table.
82. Assume that we have a table called smcity. Store the information of all salesmen with the customers in their home cities into smcity.
83. Create a table Bonus that contains date wise maximum amount of order for all salesmen.
84. Create a table Multicust containing the salesmen with more than one customer.
85. New Delhi office has closed. Remove all customers assigned to salesmen in New Delhi.
86. Delete all salesmen who have at least one customer with a rating of 100 from salesman table.
87. Delete the salesmen who produce the lowest order for each day.
88. Find the smallest order for each day. Reduce the commission of all salesmen by 2% who produce this order.
89. Delete all customers with no current orders.
90. Write a command to find out the orders by date.
91. Write a command to add the item-name column to the order table.
92. Create a copy of your order table. Drop the original order table.
93. Write a command to create the order table so that all onum values as well as all combinations of cnum and snum are different from one another and so that NULL values are excluded from the date field.

94. Write a command to create the salesmen table so that the default commission is 10% with no NULL permitted, snum is the primary key and all names contain alphabets only.
95. Give the commands to create our sample tables (salesmen, customer, orders) with all the necessary constraints like PRIMARY KEY, NOT NULL UNIQUE, FOREIGN KEY.
96. Create a view called Big orders which stores all orders larger than Rs.4000.
97. Create a view Rate count that gives the count of no. of customers at each rating.
98. Create a view that shows all the customers who have the highest ratings.
99. Create a view that shows all the number of salesman in each city.
100. Create a view that shows all the number of salesmen in each city.
101. Create a view that shows the average and total orders for each salesmen after his name and number.
102. Create a view that shows all the salesmen with multiple customers.
103. Create a view to keep track of the total no of customers ordering, no of salesmen taking orders, the no of orders, the average amount ordered, and the total amount ordered for each day.
104. Create a view Show name that shows for each order the order no, amount, salesman name and the customer name.
105. List all orders of salesman 'Rajesh' using Show name View along with his commission.
106. Create a view Max sales to store the name and number of salesman, along with the date, who have the highest order on any given date.
107. Using above view, find out the name and number of salesman who have the highest order at least two times. Store the result in another view.
108. Create a view Same city that shows the no and name and city of the customers along with the city of the salesman serving them.
109. Create a view Commission of salesmen table to include only snum and commission field so that through this view someone can enter or change the commission but only to values between 10% and 20%.
110. Assume that the CURDATE is a constant representing current date. Give a command to create orders table with CURDATE as a default date.
111. List all salesmen in London who had at least one customer located there as well.
112. List all salesmen in London who didn't have any customer there.

PL/SOL PROGRAM

- 1 Write a PL/SQL block that will accept an account number from the user, check if the users balance is less than minimum balance, then deduct Rs. 100/- from the balance.
- 2 Write a PL/SQL block that will accept student id number from the user, and check if student attendance is less than 80% then display message that student cannot appear in exam.
- 3 Create a loop that display odd numbers from 1 to 100.
- 4 Write a PL/SQL block that invert any given number.
- 5 Write a PL/SQL block that calculate the area of circle for a value of radius varying from 3 to 7. Store the radius and the corresponding values of calculated area in an empty table name areas.
- 6 Write a PL/SQL block of code that if there are no transaction taken place in the last 365 days then mark the account status as inactive and then record the account number, opening date and type of account in the table.
- 7 Write a PL/SQL block of code that first withdraws an amount of Rs. 1,000. Then deposits an amount of RS. 1,40,000. Update the current balance of all the accounts in the bank does not exceed Rs. 2,00,000. If the balance exceed Rs., 2,00,000 then undo the deposit just made.
- 8 The bank manager has decided to transfer employees across branches. Write a pl/SQL block to accept an employee number and the branch number followed by updating the branch number of that employee to which he belongs appropriately. And display and appropriate message.
- 9 The bank manager of one branch decides to activates all those accounts, which were previously marked as inactive of performing no transaction
- 10 Write A pl/SQL block for follows program.
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 - **
 - ***
- 11 Write A PL/SQL Block for if condition and also for select case.
- 12 In an interview a candidate is selected if the following criteria are match:
 1. In aptitude test candidate scores ≥ 75
 2. In technical test candidate scores ≥ 70
 3. In reasoning test candidate scores ≥ 60 or

Student score ≥ 75 in aptitude test and overall total is ≥ 205 marks . Display output

whether candidate is selected or not.

13 Create a block which delete the records of employee whose basic salary is greater than 800(Deletion is done after confirmation from user.

14 Write a PL/SQL block to display electricity bill for the electricity consumers. The database should consist of consumer-no, name, add, units consumed. Insert the data of ten consumer: and calculate the bills and using following rules :

No of units Rate /Unit For

first 100 units Rs. 6 per unit

Next 300 units R.s 4.25 per unit

Beyond 300 units Rs 3.50 per unit

All users have to pay 15% surcharge. The program should read unitsconsumed, name, consumer address.

Consumer No	Name	Units Consumed	Amount	Surcharge	Total Payable	Amt
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15 Emp (emp_id , ename , table of skills(skill name))

Project (proj_id , proj_name , team_size , estimated_duration_in_months , actual_start_date, actual_end_date) Emp_project (Proj_id , Emp_id , role_played)

1 .Count number of persons having skill 'VC++' or 'C++'. 2.Prepare a report in the following format:

Project Name : _____ Start Date : _____ End Date: _____

Sr.No. Empid Ename

1 1103 Prabhu Dayal Project Leader VC++ , Java, C++

2 1023 Kasturi Analyst MS Visio, Rational Rose

16 Patient (Patient_id, Patient_name, Patient_DOB, Patient_Phone, area, city)
Prescription(Patient_id, visit_date, referMed_1, referMed_2, referMed_3)

Write a PL/SQL Block for following:

When Patient visit next time a physician wants to see the last prescription on proper format and gives details of referred medicines prescribes at last visit. If the Patient is new the exception should be raised.

17 Write a block, which find the youngest patient. If patient's age is not available Then exception should rise.

18 Emp (empid, ename, dept, working_post, qualification, table of skills (skill name) Project (pid , pname ,p_leader (should be from EMP table),team_size, estimated_duration_in_months , actual_cost, actual_start_date , actual_end_date) Emp_project (Pid , Eid , role_played)

(Role_played in emp_project table can have value like analyst, designer,programmer, tester

a. Print the variation in duration for all the projects, which are completed in proper format.

For eg ., Project' CRM' is completed 2 months earlier than the estimated time

Project 'Automotive Trading System' took 1 months more than estimated time. Project 'Office Assistance' is completed on time.

b.

Prepare a report in proper format for all the employees with their name and skills who have worked in any project as a project leader.

19 Write PL/SQL block that find the area of patient 'Satelite'. If the patient Count < 5 in the area the exception is raise.

Patient(Patient_id, Patient_name,Body_Temp_Degree_Cel,Date,Time)

[A] Write A PL/SQL Block which display temperature of five patients for the date '14 -sep-05' in the following format. Use in built string function for formatting data. Patient_name Date Time Temperature_In_Cel

[B] Write a Trigger that checks the body temperature i.e. it does not allow inserting or updating data if body temperature is more than 103 c or less than 96c.