BABU MADHAV INSTITUTE OF INFORMATION TECHNOLOGY

5 YEARS INTEGRATED M.SC. (IT) / B.SC. (IT)

SUBJECT: Essentials of RDBMS

PRACTICAL PROBLEMS

<table>
<tr><th colspan="2">PRACTICAL :1</th></tr>
<tr><td>1</td><td>

Write a procedure that will display ‘MY FIRST PROCEDURE’ message.
Write a procedure to perform addition, subtraction and multiplication between two numbers. (Without Parameter)
Write a procedure to perform addition, subtraction and multiplication between two numbers. (With Parameter)

</td></tr>
<tr><td>2</td><td>CONSIDER FOLLOWING STUDENT TABLE
<table>
<tr><th>Column</th><th>Data type</th></tr>
<tr><td>SID</td><td>INT (PRIMARY KEY)</td></tr>
<tr><td>SNAME</td><td>VARCHAR</td></tr>
<tr><td>SCITY</td><td>VARCHAR</td></tr>
<tr><td>CONTACT</td><td>BIGINT</td></tr>
<tr><td>GENDER</td><td>VARCHAR</td></tr>
<tr><td>MARKS</td><td>INT</td></tr>
</table>

INSERT ATLEAST FIVE RECORDS WITH THE HELP OF STORED PROCEDURE.
Write a procedure that will display student name and contact number whose id is 4.
Write a procedure that will display all the details of students who belong to ‘Surat’ city.
Write a procedure that will count total number of students whose marks is more than 50.
Write a procedure that will display highest and lowest marks of students along with student name.
Write a procedure that will display student name whose marks is between 20 and 25.
Write a procedure that will pass students ID and return back the students name and contact number from student table.
Write a procedure that will pass city and return back the student details who belongs to particular city.

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3.

- WRITE A PROCEDURE P_LARGE_NUM THAT PRINTS THE LARGEST NUMBER OF GIVEN THREE NUMBER (N1=10,N2=20,N3=30) (USE SIMPLE IF THEN ELSE)
- WRITE A PROCEDURE THAT WILL TAKE NUMBER AS PARAMETER AND CHECK WHETHER THE NUMBER IS ODD OR EVEN.

- CREATE THE FOLLOWING TABLES WITH APPROPRIATE CONSTRAINTS

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	9

DESCRIPTION OF ATTRIBUTES

1. SNUM: A UNIQUE NUMBER ASSIGN TO EACH SALESMAN.
2. SNAME: THE NAME OF SALESMAN.
3. CITY: THE LOCATION OF SALESMAN.
4. 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

DESCRIPTION OF ATTRIBUTES

1. CNUM: A UNIQUE NUMBER ASSIGN TO EACH CUSTOMER. CNAME :
2. THE NAME OF CUSTOMER.
3. CITY: THE LOCATION OF CUSTOMER.
4. RATING : A LEVEL OF PREFERENCE INDICATOR GIVEN TO THIS
5. SNUM : A SALESMAN NUMBER ASSIGN TO THIS CUSTOMER

3. ORDERS

ONUM	AMOUNT	ODATE	CNUM	SNUM
3001	18.69	10/3/99	2007	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

DESCRIPTION OF ATTRIBUTES
1. ONUM: A UNIQUE NUMBER ASSIGN TO EACH ORDER.
2. AMOUNT: AMOUNT OF ORDER IN RS.
3. ODATE: THE DATE OF ORDER.
4. CNUM: THE NUMBER OF CUSTOMER MAKING THE ORDER.
5. SNUM: THE NUMBER OF SALESMAN CREDITED WITH THE SALE.

- **PERFORM THE FOLLLOWING QUESTIONS**

- WRITE A PROCEDURE P_CNUM THAT PRINTS THE NAME AND CUSTOMER NUMBER OF CUSTOMER HAVING CNUM = 2001.

- WRITE A PROCEDURE P_INCREMENT THAT INCREASE THE RATING OF CUSTOMER NO 2001 BY 150. DISPLAY THE NAME AND INCREASED RATING OF THAT CUSTOMER.

- WRITE A PROCEDURE P_ORDER THAT PRINTS THE CUSTOMER NUMBER AND ORDER AMOUNT OF THE CUSTOMER HAVING LARGEST ORDER AMOUNT

- WRITE A PROCEDURE P_CITY THAT WILL DISPLAY THE NAME AND TOTAL RATING OF THE CITY THAT HAS HIGHEST TOTAL RATING.

	• WRITE A PROCEDURE P_GRADE THAT WILL DISPLAY THE GRADE OF THE CITY WITH HIGHEST TOTAL RATING ACCORDING TO FOLLOWING RULES. ➢ IF TOTAL RATING OF ALL CUSTOMER OF THAT CITY IS LESS THAN 1000 THEN CITY_GRADE WILL BE 'POOR'. ➢ IF TOTAL RATING OF ALL CUSTOMER OF THAT CITY IS MORE THAN OR EQUAL TO 1000 AND LESS THAN 2000 THEN CITY_GRADE WILL BE 'GOOD'. ➢ IF TOTAL RATING OF ALL CUSTOMER OF THAT CITY IS MORE THAN OR EQUAL TO 2000 AND LESS THAN 3000 THEN CITY_GRADE WILL BE 'EXCELLENT'. ➢ IF TOTAL RATING OF ALL CUSTOMER OF THAT CITY IS MORE THAN OR EQUAL TO 3000 THEN CITY_GRADE WILL BE 'OUTSTANDING'. **USE ELSEIF STRUCTURE.** ➢ REWRITE THE PROCEDURE CREATED USING **NESTED IF**. • WRITE A PROCEDURE P_GRADE THAT WILL PRINT CUSTOMER NAME AND GRADE OF THE CUSTOMER WHOSE CUSTOMER NUMBER IS 2002. GRADE WILL BE DECIDED ACCORDING TO FOLLOWING RULES. ➢ IF RATING IS 100 THEN GRADE WILL BE 'POOR'. ➢ IF RATING IS 200 THEN GRADE WILL BE 'GOOD'. ➢ IF RATING IS 300 THEN GRADE WILL BE 'EXCELLENT'.

PRACTICAL :2	
1.	Mitsu shah studying in BMIIT, 2nd semester. Her counselor wants to check total numbers of leave applied by Mitsu and total number of granted leave of that student. Write a procedure to implement above functionality and display information in a proper format. **Consider table**: **Student master**(Sid,Sname,Class,Sem, gender, city) **Leave master**(Lid, LeaveType, Stud_id, Reason, Status)
2.	Counselor of 2nd semester wants to identify number of boys, number of girls under her counseling and number of students coming from "Valsad" city. Write a procedure to implement above functionality and display result in proper format. Consider table of above question: 1
3.	In company, worker efficiency is determined on the basis of required to complete a particular job. If time taken by the worker is between 2-4 hours, then the worker is said to be high efficient. If the time required by the worker is between 4-6 hours, then the worker is ordered to improve efficiency. If time is between 6-8 hours, the worker is given training to improve his efficiency, and if the time taken by the worker is more than 8 hours, then the worker is not eligible for company. Write a procedure to take time that is taken by worker to complete a job from keyboard and display the appropriate category of worker on the screen. consider table: **Employee**(eid,ename,department,designation,worker effiecncy,status)
4.	Mr. John having employee id emp050 working as a Developer in a Lemon Technology. John wants to know how much increment he will get in this Year. Help Mr. John to find his updated salary using procedure. Company Criteria for Increment as follows. • Give increment of 3000 Rs if experience more than 3 Year. • Give increment of 2000 Rs if experience more than 1Year. • Give increment of 5000 Rs, if experience more than 5 Year • No increment if experience less than 1Year..

	Consider table: **Employee** (Id, Name, Salary, Dept, Designation, No_of_Experience)
5.	"ZINK Corporation "is giving bonus in diwali to Mr. Varma having employee id E202 as per designation of employee. Bonus will be directly added in salary account. If employee is tester then give raise of 12%, if developer then gives raise of 10%, if manager, raise salary by 15%, for other department gives raise of 5%. **[Must use concept of Switch case]** Consider table: **Employeemaster** (eno,ename,designation,salary, joing_date)
6.	Domestic consumer can calculate the bill using the different charges for different unit given in the below table Mr. Akash Bhadra wants to pay the electricity bill, help him to find how much payment he has to pay, and after payment the details should be maintain in BillData. **[Must use concept of Switch case]** Criteria which are to be considered while calculation of bill: UNIT CHARGES 0-100 200 fixed. 100-200 200+ Extra unit*3. 200-300 200+Extra unit*4. 300-400 200+Extra unit*5. Consider Table: **Customer** (Cust_id,Cust_Name,Unit_Consumed,Total_Bill_Amt) **BillData**(bid,cust_id,TotalBillAmt,DateofPayment) [Note: Direct insertion in BillData is not allowed, Use Procedure for calculation]