



UDHNA CITIZEN COMMERCE COLLEGE &  
S.P.B. COLLEGE OF BUSINESS ADMINISTRATION &  
SMT. DIWALI BEN HARIBHAI BOMBAYIA COLLEGE OF BBA & I.T.  
(Self Financed College Affiliated To VNSGU, Surat)  
(Recognized college under Section 2 (f) of the UDC Act, 1956)  
(Managed By Udhna Academy Education Trust, Udhna, Surat)



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F.Y.B.Sc. (IT) (2<sup>nd</sup> Semester)

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Subject: 205 – Practical-2

JOURNAL

Sr. No.	Description	Page No.	Sign
1	Write a C Program to create a structure to specify data on <i>Employee</i> given below: Employee number, Name, Department, Salary Input information of 5 employees and display information of those employees whose salary is greater than <b>n</b> ( <b>n</b> is user define).		
2	Write a C Program to create a structure to specify data on <i>students</i> given below: Roll number, Name, Course, Obtained Percentage (Assume that there are not more than 100 students) Input Students information for user given N number of students and display them properly.		
3	Update Program Sr.No.1, Write a function to print names of all students who joined for a particular course given through the keyboard.		
4	Update Program Sr.No.1, Write a function to print the data of a student whose roll number is given through the keyboard.		
5	Write a C program that create a UDF: <b>power (a, b)</b> , to calculate the value of <b>a</b> raised to <b>b</b> . Values of <b>a</b> and <b>b</b> entered through the keyboard.		
6	Write a C program that create a UDF to calculate the factorial value of any integer entered through the keyboard.		
7	Write a C program that create a UDF to display all intermediate prime numbers of given range entered through the keyboard.		
8	Write a C program that create a UDF to find the binary equivalent of the positive number using. A positive integer is entered through the keyboard.		

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9	Write a function <code>sumavg()</code> that receives 5 integers and returns the sum, and average of these numbers. Call this function from <code>main()</code> and print the results in <code>main()</code> . (hint: use call by reference to avail sum and average value from called function)		
10	<b>Write down macro definitions for the following:</b> a) To find arithmetic mean of two numbers. b) To find absolute value of a number. c) To convert a uppercase alphabet to lowercase. d) To obtain the bigger of two numbers.		
11	Write a C program to add the contents of one file at the end of another.		
12	Write a program to copy one file to another. While doing so replace all lowercase characters to their equivalent uppercase characters.		
13	Write a C Program to implement following operation using Employee information such as Employee number, Name, Department, Salary ✓ Create a file of employee data ✓ Display Employee data from file		
<b><u>Introduction to DBMS Practical Questions</u></b>			
1	<b>Table Structure</b> <b>PRODUCT Table</b> <pre>product (   product_id INT PRIMARY KEY,   product_name VARCHAR(50),   category VARCHAR(30),   price DECIMAL(10,2) )</pre> <b>ORDERS Table</b> <pre>orders (   order_id INT PRIMARY KEY,   order_date DATE,   quantity INT,   product_id INT,   FOREIGN KEY (product_id) REFERENCES   product(product_id))</pre>		
	<b>Table Creation &amp; Insert Operations</b> 1. Create the product table with appropriate constraints. 2. Create the orders table with a foreign key reference to product. 3. Insert at least <b>5 records</b> into the product table.		

	<p>4. Insert at least <b>5 records</b> into the orders table.</p> <p>5. Display the structure of both tables.</p>		
2	<p><b>Basic SELECT Queries</b></p> <ol style="list-style-type: none"> <li>1. Display all products.</li> <li>2. Display all orders.</li> <li>3. Display product name and price only.</li> <li>4. Display orders placed after 2025-01-01.</li> <li>5. Display products belonging to the category 'Electronics'.</li> </ol>		
3	<p><b>WHERE, AND, OR, BETWEEN clause queries</b></p> <ol style="list-style-type: none"> <li>1. Display products whose price is greater than 2000.</li> <li>2. Display orders where quantity is greater than 3.</li> <li>3. Display products whose price is between 500 and 3000.</li> <li>4. Display orders for product_id = 2 AND quantity &gt; 2.</li> <li>5. Display products whose category is 'Accessories' OR 'Electronics'.</li> </ol>		
4	<p><b>Aggregate Function Queries</b></p> <ol style="list-style-type: none"> <li>1. Find the total number of products.</li> <li>2. Find maximum, minimum, and average product price.</li> <li>3. Find total number of orders placed.</li> <li>4. Find total quantity ordered for each product.</li> <li>5. Display product-wise total sales quantity.</li> </ol>		
5	<p><b>Numeric Function Queries</b></p> <ol style="list-style-type: none"> <li>1. Display product prices rounded to nearest integer.</li> <li>2. Increase product price by 10% and display the new price.</li> <li>3. Display ceiling and floor value of product prices.</li> <li>4. Display absolute value of price difference (assume negative).</li> </ol>		
6	<p><b>String Function Queries</b></p> <ol style="list-style-type: none"> <li>1. Display product names in uppercase.</li> <li>2. Display product names in lowercase.</li> <li>3. Display length of each product name.</li> <li>4. Display first 3 characters of product name.</li> <li>5. Concatenate product name and category.</li> </ol>		
7	<p><b>JOIN Queries</b></p> <ol style="list-style-type: none"> <li>1. Display orders along with product name and price.</li> <li>2. Display order_id, order_date, product_name, quantity using INNER JOIN.</li> <li>3. Display total quantity ordered for each product using JOIN.</li> <li>4. Display products that have not been ordered.</li> </ol>		

8	<b>Subqueries</b> <ol style="list-style-type: none"><li>1. Display products whose price is higher than average price.</li><li>2. Display product(s) with maximum price.</li><li>3. Display orders for the costliest product.</li></ol>		
9	<b>Update &amp; Delete Queries</b> <ol style="list-style-type: none"><li>1. Update product price by increasing it by 5% for all products.</li><li>2. Update category of a product whose product_id = 3.</li><li>3. Delete an order whose order_id = 105.</li><li>4. Delete all orders for a specific product.</li></ol>		

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