

C, C++ & SQL Assignments

C - Programming

Module 1:

1. Display This Information **using printf** a. Your Name b. Your Birth date c. Your Age d. Your Address

Module 2:

1. Write a program to make a square and cube of number.
2. Write a program to find the simple Interest & Compound Interest.

Module 3:

1. Write a Program to check the given year is leap year or not.
2. Write a Program to check the given number is prime or not prime.
3. Write a program user enter the 5 subjects mark. You have to make a total and find the percentage.
percentage > 75 you have to print "Distinction"
percentage > 60 and percentage <= 75 you have to print "First class"
percentage > 50 and percentage <= 60 you have to print "Second class"
percentage > 35 and percentage <= 50 you have to print "Pass class"
Otherwise print "Fail"
4. Write a program of to find out the Area of Triangle, Rectangle and Circle using Switch Case .(Must Be Menu Driven)
5. Write a program you have to print the Fibonacci series up to user given number
6. Write a program to print the number in reverse order.
7. Write a program make a summation of given number(E.g. 1523 ans :-11)
8. Pyramid Programs

A) *
 **

B) 1
 2 3
 4 5 6
 7 8 9 10

C) * * * * *
 * * * * *
 * * * * *
 * *
 *

9. Write a program to find out the max number from given 10 elements of array
10. Write a program to sort the array of 5 elements.
11. Write a Program of find the element of given position from the array
12. Write a program to find out the Max number from given Matrix
13. Write a program to copy string from one string to another string with user define function .
14. Write a program to find out the factorial of given number using function.
15. Write a program to print the Fibonacci series using function
16. Write a Program of Print a number and check the number is palindrome or not using recursive Function
17. Write a program of structure for five employee that provides the following information print and display empno, empname, address and age
18. Write program to make a addition of two number using pointer
19. Write a program to concatenate the two string using pointer.
20. . Write a program to sort the numbers using pointer and functions

Module 4

1. Write a program to read data from file.
2. Write a program to read and write data from the file.

C++ - Programming

Module 5

1. Write a C++ Program to print Message " Welcome to Tops Technologies "

Module 6

1. Define a class to represent a bank account. Include the following members:

Data Member: -

Name of the depositor -
Account Number -
Type of Account -
Balance amount in the account

Member Functions -

To assign values -
To deposited an amount -
To withdraw an amount after checking balance -
To display name and balance

2. Define a class to represent lecture details. Include the following members and the program should handle at least details of 5 lecturer.

Data members : Name of the lecturer Name of the subject Name of course Number of lecturers

Data functions: To assign initial values To add a lecture details To display name and lecture details

3. Write a program of find the simple interest using constructor with dynamic initialization. Make constructor like Interest (int principal, int year, int rate) Interest (int principal, int year, float rate = 2.5)

4. Write a program to find the multiplication values and the cubic values using inline function.

5. Write a Program of Two 1D Matrix Addition using Operator Overloading

6. Write a program of to concatenate the two strings using Operator Overloading

7. Assume a class cricketer is declared. Declare a derived class batsman from cricketer .Data member of batsman. Total runs, Average runs and best performance. Member functions input data, calculate average runs, Display data. (Single Inheritance)

8. Create a class person having members name and age. Derive a class student having member percentage. Derive another class teacher having member salary. Write necessary member function to initialize, read and write data. Write also Main function (Multiple Inheritance)
9. Assume that a bank maintains two kinds of accounts for customer, one called as saving account and other as current accounts provides Simple interest and withdraw facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should maintain a minimum balance and if the balance falls below this level a service charges is imposed
Create a class account that stores customer name, account number and type of account.
From this derive classes curr_acc and sav_acct to make them more specific to their requirements Include necessary member functions in order to achieve the following tasks a.
 - a. Accepts deposit from a customer and update balance.
 - b. Display the balance.
 - c. Compute and deposit interest.
 - d. Permit withdraws and updates the balance.
 - e. Check for the minimum balance, impose penalty, necessary and update the balance.
10. Write a program to swap the two numbers using friend function
11. Write a program to read and write data in to file
12. Write a program of to swap the two values using templates
13. Create a example of use delete and new operator.
14. Write a program of to sort the array using templates.

SQL Assignment

TASK -1 : Create Database: Practices

Note: Use Create SQL statement for creating table.

tblProduct:

Column Name	Data Type	Constraint	Description
Prd_ID	Int	Primary Key	Auto Increment
Prd_Name	Varchar(25)		
Recommended_Price	Varchar(25)		
Category	Varchar(25)		

tblCustomer:

Column Name	Data Type	Constraint	Description
CustomerID	Int	Primary Key	Auto Increment
FirstName	Varchar(25)		
LastName	Varchar(25)		
City	Varchar(25)		
State	Varchar(25)		
Zip	Varchar(25)		

tblSales

Column Name	Data Type	Constraint	Description
Sales_ID	Int	Primary Key	Auto Increment
Prd_ID	Int	Foreign Key	
Cust_Id	Int	Foreign Key	
SalesPrice	Varchar(25)		
SalesDate	Date		

Queries :

- 1) Return the FirstName, LastName , ProductName and Sales Price for all products sold in month of October 2022
- 2) Return the CustomerID, FirstName, and LastName of those individuals in the Customer table who have made no Sales purchases.
- 3) Return the FirstName, LastName, SalePrice, Recommended SalePrice, and the difference between the SalePrice and Recommended SalePrice for all Sales. The difference must be returned as a positive number.
- 4) Add the following Customer and Sale information to the database. (using store procedure)
 FirstName : Mansi
 LastName : Joshi
 City: Mumbai
 State:MH
 Zip:400001
 ProductID:3
 SalePrice:205
 SaleDate:05/12/2022
- 5) Return the Product Category and the average Sale Price for those customers who have purchased two or more products.
- 6) Update the Sale Price to the Recommended Sale Price of those Sales occurring between 6/10/2022 and 6/20/2022.
- 7) Number of Sales by Product Category where the average Recommended Price is 10 or more dollars greater than the average Sale Price.
- 8) Largest order taken by each salesperson, date wise.
- 9) Without using a declared iterative construct, return Sale Date and the running total for all sales, ordered by the Sale Date in Ascending Order.

TASK 2:
Table Name:- Employee

Empid	EmpName	Department	ContactNo	EmailId	EmpHeadId
101	Isha	E-101	1234567890	isha@gmail.com	105
102	Priya	E-104	1234567890	priya@yahoo.com	103
103	Neha	E-101	1234567890	neha@gmail.com	101
104	Rahul	E-102	1234567890	rahul@yahoo.com	105
105	Abhishek	E-101	1234567890	abhishek@gmail.com	102

Table Name:- EmpDept

DeptId	DeptName	Dept_off	DeptHead
E-101	HR	Monday	105
E-102	Development	Tuesday	101
E-103	Hous Keeping	Saturday	103
E-104	Sales	Sunday	104
E-105	Purchase	Tuesday	104

Table :- EmpSalary

EmpId	Salary	IsPermanent
101	2000	Yes
102	10000	Yes
103	5000	No
104	1900	Yes
105	2300	Yes

Table :- Project

ProjectId	Duration
p-1	23
p-2	15
p-3	45
p-4	2
p-5	30

Table :- Country

cid	cname
c-1	India
c-2	USA
c-3	China
c-4	Pakistan
c-5	Russia

Table :- ClientTable

ClientId	ClientName	cid
cl-1	ABC Group	c-1
cl-2	PQR	c-1
cl-3	XYZ	c-2
cl-4	tech altum	c-3
cl-5	mnp	c-5

Table :- EmpProject

EmpId	ProjectId	ClientID	StartYear	EndYear
101	p-1	Cl-1	2010	2010
102	p-2	Cl-2	2010	2012
103	p-1	Cl-3	2013	
104	p-4	Cl-1	2014	2015
105	p-4	Cl-5	2015	

Queries :

- 1) Select the detail of the employee whose name start with P.
- 2) How many permanent candidate take salary more than 5000.
- 3) Select the detail of employee whose emailed is in Gmail.
- 4) Select the details of the employee who work either for department E-104 or E-102.
- 5) What is the department name for DeptID E-102?
- 6) What is total salary that is paid to permanent employees?
- 7) List name of all employees whose name ends with a.
- 8) List the number of department of employees in each project.
- 9) How many project started in year 2010.
- 10) How many project started and finished in the same year.
- 11) Select the name of the employee whose name's 3rd character is 'h'.
- 12) Select the department name of the company which is assigned to the employee whose employee id is grater 103.
- 13) Select the name of the employee who is working under Abhishek.
- 14) Select the name of the employee who is department head of HR.
- 15) Select the name of the employee head who is permanent.
- 16) Select the name and email of the Dept Head who is not Permanent.
- 17) Select the employee whose department off is Monday
- 18) select the Indian clients details.
- 19) select the details of all employee working in development department.