C Programming Assignment Project

- Note: 1. Solve any 10 programmes
 - 2. Each programme carries 10 marks
 - **3. Reference Book :** Programming in C, SCDL
 - 4. Assignment Project to be send on pgdit3@scdl.net
 - 5. Assignment Project is to be send on the same guidelines as C Programming Exam Project
 - 6. Sample Questions are for Practice Purpose. Please do not send the same for Evaluation.
- Q. 1 Write algorithm for the following:
 - a) to check whether an entered number is odd / even.
 - b) to calculate sum of three numbers.
- Q. 2 Draw a flowchart for the following:
 - a) to find greater and smaller number from given two numbers.
 - b) to calculate sum of first 10 odd numbers.
- Q. 3 Write short notes on the following:
 - a) C Variables b) C data types
- Q. 4 Accept principal amount, rate of interest, and duration from the user. Display Interest Amount and Total Amount (Principal + Interest).
- Q. 5 Accept the salary of an employee from the user. Calculate the gross salary on the following basis:

Basic	HRA	DA
1 - 4000	10%	50%
4001 - 8000	20%	60%
8001 - 12000	25%	70%
12000 and above	30%	80%

- Q. 6 Accept any number from the user. Display whether the number is divisible by 100 or not.
- Q. 7 Accept a month in digit from the user. Display the month in words. If number is not between 1 and 12 display message "Invalid Month". (Use 'switch')
- Q. 8 Display all prime numbers between 50 and 150.

Q. 9 Write a program to print the following pattern:

a)	1	b)	1
	1 2		2 2
	1 2 3		3 3 3
	1 2 3 4		4444
	1 2 3 4 5		55555

- Q. 10 Write a program to swap the values of two numbers. Do this using call by reference method of function.
- Q. 11 Write a program to accept 10 values in an integer array. Display the number of odd, even, and negative numbers.
- Q. 12 Accept any two strings from the user. Display whether both the strings are equal or not. (do not use standard functions.)
- Q. 13 Accept any string from the user. Convert case of the string to lower / upper using pointers. (if entered string is in lower case convert it to uppercase and vice versa.)
- Q. 14 Accept any two numbers from the user. Using pointers swap the values two numbers without using third variable.
- Q. 15 Create a structure to store the employee number, name, department and basic salary. Create a array of structure to accept and display the values of 10 employees.
- Q. 16 Accept a file name from the user. Display the contents of the file. Also add the entered string to the file.
- Q. 17 a) Any number is a command line argument. Write a program to display the number in reverse order.
 - b) Write a short note on enum

Programmes for 40 marks (For Practice Purpose Only)

Q. 1 Following is the menu to be displayed to the user. On selecting a choice display appropriate result. Number should be accepted from the user.

Menu

- 1. Prime Factors
- 2. Leap Year
- 3. Sum of all digits
- 4. Number in reverse order
- Q. 2 Perform the following operations on integer array of 10 elements. Accept the values from user.
 - 1. Sort an array in ascending order.
 - 2. Display sum of all odd values stored in an array.
 - 3. Display number of even values stored in an array.
- Q. 3 Write a program for the following
 - 1. A file name is command line argument. Display the contents of the file where each word will be displayed on a new line. Display proper message if file does not exist.
 - 2. Display no. of ovals stored in the file.
 - 3. Display no. of "the" stored in the file.
 - 4. Copy contents of the file to another file.

Instructions:

- 1. 2 marks for basic structure of program i.e. including required library files, main().
- 2. 50% marks for logic.
- 3. 10% marks for proper comments in the program.
- 4. Rest marks for syntaxes.

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