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| **Unit – 3** | | |
| **Day – 13** | | |
| **Lec #** | **Topics to be covered :** | **Assignments :** |
| 1 | Storage class, Recursion. | **Essential Assignment**   1. Write a C program for computing the fibonacci number sequence using recursion. Take the number of the terms from the user (must be more than 2).   (Hint : In fibonacci series, next number is the sum of previous two numbers for example 0, 1, 1, 2, 3, 5, 8, 13, 21 etc. The first two numbers of fibonacci series are 0 and 1. )   1. Write a C program to find Sum of digits of a number using recursion. Take 4 digit number. 2. Write a C program which has two integer variables n1 & n2. Write the code to print the address of both the variables. 3. Write a program in C to add two numbers using pointers. 4. Write a program that uses a function to add and subtract two integer variables using 1) Local variable in main function and 2) Global variable. Compare both the approaches.   **Desirable Assignment**   1. Write a C Program for computing the factorial number sequence using recursion.   Take the number of the terms from the user (must be more than 1. ( Factorial of 5 is calculated as 5 X 4 X 3 X 2 X1.   1. Write a C Program to find the Greatest Common Divisor using recursion. 2. Write a C Program to find the largest element in an array using recursion. |
| 2 | Pointer - Concept of memory addresses revised, use of the (&) operator. Pointer Execution – Declaring and Initializing a pointer, Indirection Operator and dereferencing a pointer. |