***DIFFICULT---FDS Assignment difficultylevel-2***

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| **Session No** | **Topic** |
| 1 | **WA Menu Driven Program to perform following Matrix Operations.**   1. Transpose 2. Multiplication 3. Addition of Major Diagonal Elements 4. Addition of Minor Diagonal Elements 5. Lower Triangular Matrix 6. Upper Triangular Matrix 7. Find Weather Matrix is Symmetric or not? |
| 2 | **WAP for Structure manipulation (for student database) using pointers.**   1. Create 2. Modify 3. Delete 4. Print |
| 3 | **3. Write a Menu driven program to perform various string operations without using library function and using pointers**   1. Copy 2. Reversing 3. Palindrome 4. Concatenation 5. Find occurrence substring |
| 4 | **WA menu driven program to perform following Search algorithm.**  1. Binary Search recursive. |
| 5 | **WAP to perform Sorting Using Simple Sort Algorithm**   1. Bubble 2. Insertion 3. Selection 4. Quick Sort 5. Merge Sort |
| 6 | You are given a data file EMPLOYEE.DAT with the following record structure:  struct employee {  int empno ;  char name[30] ;  int basic, grade ;  } ;  Every employee has a unique empno and there are supposed to be no gaps between employee numbers. Records are entered into the data file in ascending order of employee number, empno. It is intended to check whether there are missing employee numbers. Write a program to read the data file records sequentially and display the list of missing employee numbers. Also sort the names stored in the array name in alphabetical order. |