**Day 3 Assignment Compiler Design Lab**

1. Write a C program to check if another C file has the necessary prerequisites for executing a C program(such as #include<stdio.h>, int main(){},return 0; )
2. Write a C program that will replace a calloc() function to malloc() function with appropriate parameters.(E.g.- Input: calloc(5,sizeof(float)), Output: malloc(5\* sizeof(float)))
3. Write a C program which will take a C file as input and find out the total memory space required for allocating all the variables and check if it exceeds a certain limit.(which is taken as user input)
4. Write a C program that takes another C file as input and check if all the functions are having proper return types. (Hint: Check whether the return type matches with the return statement.)
5. Write a C program that should check if all the members of the structures are having a defined data type. If not, print an error.
6. Write a C program that will check whether the input string is containing “Monday” in it.
7. Write a C program that will check whether all the variables declared in an input file are initialized or not. If not, initialize them with 0.
8. Write a program in C that will take two files as input and merge them into one and delete any redundant words from the resulting file.
9. Write a C program to find if a given grammar is Context free or not
10. Write a program in C to find the First and Follow for a given set of productions