

Note :

1. **This Assignment needs the application of concepts of pointers, dynamic memory allocation, operators control flow constructs, structures and covers stack, queues, linked lists**
2. **Write functions wherever necessary.**
3. **All programs should follow ANSI C standards and Linux coding style**

find the link : /usr/src/linux-4.4.x.y/Documentation/Coding Style

4. **Use -Wall option while compiling to arrest any warnings.**
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1. Implement STACK to perform the below operations using arrays.
 - a. push
 - b. pop
 - c. Display
2. Implement QUEUE to perform the below operations using arrays.
 - a. Enqueue
 - b. Dequeue
 - c. Display
3. Implement circular queue using arrays.
4. Implement SLL
5. Implement DLL
6. Implement CSLL
7. Implement DCLL

Note:

Operation to be performed on SLL and DLL:

1. Insertion
 1. Insert at the beginning
 2. Insert at the end
 3. Insert at a given position
 4. Insert before a given position
 5. Insert after a given position
 6. Insert before a given number
 7. Insert after a given number
 8. Insert at the middle
 9. Insert at penultimate node.
2. Deletion

The above operations has to implemented on deletion
- 3.

- 3.1. WAP to create a linked list of n nodes & copy the contents of the list to a file in.dat
- 3.2. Write a complimentary program to the 3.1 which will read the contents from the in.dat and re-create linked list and print the content of the linked list on to stdout.