

### **LIST OF EXPERIMENTS**

Sr. No	List	Date
1	<p>Write a C Program to Implement following :</p> <ol style="list-style-type: none"><li>1. To traverse elements of an array.</li><li>2. To calculate the factorial of a number using recursion.</li><li>3. To find the address of a variable using a pointer.</li><li>4. To count the length of the string. (Do not use strlen( ) )</li><li>5. To reverse the string. (Do not use strrev( ) ).</li><li>6. To count the number of a particular character entered by a user.</li><li>7. To count &amp; display all the vowels.</li><li>8. To change the case of the string. (Lower to Upper &amp; Upper to Lower).</li><li>9. To concatenate two strings.</li><li>10. To compare two strings.</li></ol>	
2	<p>Implement function of stack with following operations:</p> <ol style="list-style-type: none"><li>1. Push( )</li><li>2. Pop( )</li><li>3. Peek( )</li><li>4. Display( )</li><li>5. Isempty( )</li><li>6. Isfull( )</li></ol>	
3	<p>Implement Applications of Stack.</p> <ol style="list-style-type: none"><li>1. Write a program to recognize the string with language <math>L = \{wcwR / w \text{ takes multiple occurrences of } \{a,b\}\}</math>.</li><li>2. Write a program to check the validity of expressions, which contains multiple opening and closing brackets. (i.e., <math>[(a+b) * c] - d</math>).</li><li>3. Write a program to convert unparenthesized and parenthesized infix expressions to postfix.</li><li>4. Write a program to evaluate the given postfix expression.</li></ol>	
4	<p>Implement function <a href="#"><u>of Queue with following operations:</u></a></p> <ol style="list-style-type: none"><li>1. Write a program to Implement Simple Queue with following operations:<ol style="list-style-type: none"><li>1. Enqueue()</li><li>2. Dequeue()</li><li>3. Display( )</li></ol></li><li>2. Write a program to Implement Circular Queue with following operations:</li></ol>	

	<ol style="list-style-type: none"> <li>1. Enqueue()</li> <li>2. Dequeue()</li> <li>3. Display( )</li> <li>3. Write a program to Implement Deque with following operations: <ol style="list-style-type: none"> <li>1. InsertAtRear( )</li> <li>2. InsertAtFront( )</li> <li>3. DeleteAtRear( )</li> <li>4. DeleteAtFront( )</li> <li>5. Display( )</li> </ol> </li> <li>4. Write a program to Implement Priority Queue.</li> </ol>	
5	<p>Implement Program for Linked List.</p> <ol style="list-style-type: none"> <li>1. To implement singly linked list with following operations: <ol style="list-style-type: none"> <li>1. InsertAtFirst( )</li> <li>2. InsertAtLast( )</li> <li>3. InsertAfterspecifiednode( )</li> <li>4. DeleteAtFirst( )</li> <li>5. DeleteAtLast( )</li> <li>6. DeleteAfterspecifiednode( )</li> <li>7. Traverse (Display)</li> </ol> </li> <li>2. To implement a doubly linked list with above functions.</li> <li>3. To implement a circular linked list with above functions.</li> </ol>	
6	<p>Implement various sorting algorithms:</p> <ol style="list-style-type: none"> <li>1. BubbleSort</li> <li>2. SelectionSort</li> <li>3. InsertionSort</li> <li>4. ShellSort</li> <li>5. MergeSort</li> <li>6. QuickSort</li> <li>7. HeapSort</li> </ol>	
7	Write a C Program to implement a Binary Search Tree.	
8	<p>Write a C Program to implement searching algorithms for the following:</p> <ol style="list-style-type: none"> <li>1. SequentialSearch( )</li> <li>2. BinarySearch( )</li> </ol>	
9	Write a C Program to Implement Hash Tables.	