Topics to be covered for Lecture 13

* Definition of stack data structure
* Push Pop peek display operations for a stack
* Applications of stack

1. Stack frames
2. Infix to postfix conversion(implementation in class 15)
3. Postfix expression evaluation
4. Parentheses balancing
5. Recursion ( kindly discuss with example if not covered before)

* Various ways to implement stack

1. Array based implementation with static memory allocation
2. Array based implementation with dynamic memory allocation

We will discuss the concept of array doubling to deal with stack full condition

1. Linked list based implementation

(Discussion of operations implementations to be discussed in the following lecture)

Topics to be covered for Lecture 14

* Array implementation of stacks

1. Demonstration of push pop function
2. Array doubling to deal with full stack(Array implementation using dynamic array/growable stacks)

* Linked List based implementation of stacks

Topics to be covered for Lecture 15, 16

(Program implementation+ tracing with examples)

* Polish notations
* Conversion of expression from infix to postfix
* Postfix expression evaluation