	STACKS
1	Write a C recursive function to compute a+b where a and b are nonnegative integers using the following function: int succ(int x) {    return (x++); }
2	Evaluate the following postfix expression:  6 2 3 + - 3 8 2 / + * 2 \$ 3 +  Show the contents of stack, op1,op2,symbol and value for each symbol read in the following format  Symbol op1 op2 value stack-contents
3	Write a C subroutine to determine if an input string is of the form x C y where x is a string consisting of letters A and B and y is the reverse of x. Implement using stacks. [Examples: ABBCBBA and ABBACABBA are some of the strings of the given form. ABCAB and BAACABA are some of the strings not of the given form.]
4	For the following definition of f(n) write C recursive function and compute how many additions are done to evaluate f(6).  f(n)=n if n=0 or n=1 f(n)=f(n-2)+f(n-1) if n>=2
5	Illustrate the working of infix expression to postfix expression algorithm to get postfix form of the infix expression ((A-(B+C))*D)\$(E+F) by tabulating the result of each input character read in in the format given below:  Read -Symbol postfix stack-contents
6	Show how to implement a stack of integers in C by using an array int s[stacksize] where s[0] is used to contain the index of the top element of the stack and s[1] through s[stacksize-1]contain the elements on the stack. Write C declaration and functions push(), pop() empty() for this implementation.
7	Convert the following given infix expressions to postfix and prefix expressions respectively.  i. A + B * (C - (D/E)^G)  ii. F - (K/(H*S)^J) + X  Also write a C function void conversion_infix_to_postfix(struct stack *s, char infix[]), to convert infix expression to postfix expression.
8	Write a recursive call to move 'n' discs from peg A to peg C using B as auxiliary peg to solve the Tower of Hanoi problem.
9	Write a c function int Balance_infix_expression(struct stack *s, char infix []) to check whether the given input expression is balanced expression or not.
10	Write a c function int is_palindrome(char str[]) to check whether given string is a palindrome or not using stacks.
11	Write C functions for the following operations of stack.  i. Push() ii. Pop() iii. Peek() iv.Display()

12	Define Stack. List the different applications of stack.
13	The Greatest Common Divisor of two integers x and y is defined as follows,
	gcd(x,y) = y if $(y < = x & x % y = 0)$
	gcd(x,y) = gcd(y,x) if $(x < y)$
	gcd(x,y) = gcd(y, x % y) otherwise
	Write a recursive C function to compute gcd (x, y). Also find for how many times the
	recursive function is called for the values of gcd (20,75).