

1. Write a program to perform Push, Pop, and Peek operations on a stack.
2. Write a program to perform Push, Pop, and Peek operations on a stack using linked list.
3. Write a program to reverse a list of given numbers.
4. Write a program to check nesting of parentheses using a stack.
5. Write a program to convert an infix expression into its equivalent postfix notation.
6. Write a program to evaluate a postfix expression.
7. Write a program to convert an infix expression to a prefix expression.
8. Write a program to evaluate a prefix expression.
9. Write a program to calculate the factorial of a given number.
10. Write a program to calculate the GCD of two numbers using recursive functions.
11. Write a program to calculate $\exp(x,y)$ using recursive functions.
12. Write a program to print the Fibonacci series using recursion.
13. Write a program to convert the expression "a+b" into "ab+".
14. Write a program to convert the expression "a+b" into "+ab".
15. Write a program to implement a stack that stores names of students in the class.
16. Write a program to input two stacks and compare their contents.
17. Write a program to compute $F(x, y)$, where $F(x, y) = F(x-y, y) + 1$ if $y < x$ And $F(x, y) = 0$ if $x < y$.
18. Write a program to compute $F(n, r)$ where $F(n, r)$ can be recursively defined as: $F(n, r) = F(n-1, r) + F(n-1, r-1)$.
19. Write a program to compute $\text{Lambda}(n)$ for all positive values of n where $\text{Lambda}(n)$ can be recursively defined as: $\text{Lambda}(n) = \text{Lambda}(n/2) + 1$ if $n > 1$ and $\text{Lambda}(n) = 0$ if $n = 1$.
20. Write a program to compute $F(M, N)$ where $F(M, N)$ can be recursively defined as:
 $F(M,N) = 1$ if $M=0$ or $M \geq N \geq 1$ and $F(M,N) = F(M-1,N) + F(M-1, N-1)$, otherwise.
21. Write a program to reverse a string using recursion.