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| **Subject NAME** | **:** | **Data Structure & Algorithm LAb** |
| **DATE OF EXPERIMENT** | **:** | **20th October, 2021** |
| **Instructor NAME** |  | **Prof. Nadeem** |
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**LAB TASK 1**

Write a program to check the balanced parenthesis in the expression or not using stack.

CODE:

stack=[]

Exp = input("Please Enter any Expression")

count=0

for i in Exp:

   if (i=='(' or i=='{' or i=='['):

       stack.append(i)

       count += count

   elif (i==')' or i=='}' or i==']'):

        stack.pop()

        count-=count

if len(stack)==0:

 print ("Balanced parenthesis ")

else:

    print ("Not Balanced parenthesis ")

print (stack)

# Output1:

# 

# Output2:

# 

# LAB TASK 2

# Write a program to let the user enter a string of his own choice. Check whether the given string is a palindrome or not

# Code:

# 

Stack= []

data = input("Please Enter the string:")

for ch in data:

    stack.append(ch)

reversed\_data = ''

while (len(stack)!=0):

    reversed\_data = reversed\_data + stack.pop()

if data == reversed\_data:

    print('The string is a palindrome.')

else:

    print('The string is not a palindrome.')

# Output 1:

# 

# Output 2:

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