**DATA STRUCTURES AND ALOGRITHAM**

**ASSIGNMENT#1**

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**Task#1**

**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**

string=input("Enter a string")

string2=''

stack1=[]

for i in string:

  stack1.append(i)

while len(stack1)!=0:

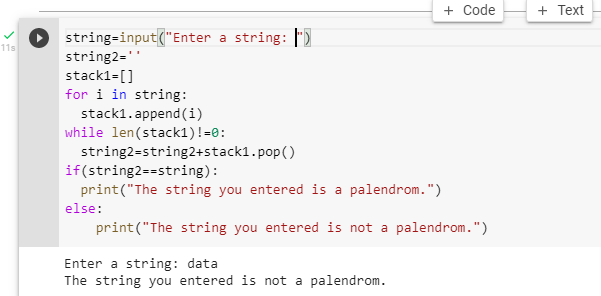
  string2=string2+stack1.pop()

if(string2==string):

  print("The string you entered is a palendrom.")

else:

    print("The string you entered is not a palendrom.")



**Task#2**

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

**Code**

var1=0

for i in expression:

  if(i=='[' or i=='(' or i=='{'):

    stack1.append(i)

  if(i==']' or i==')' or i=='{'):

    if(len(stack1)==0):

      print("Unbalanced")

      var1=var1+1;

    else:

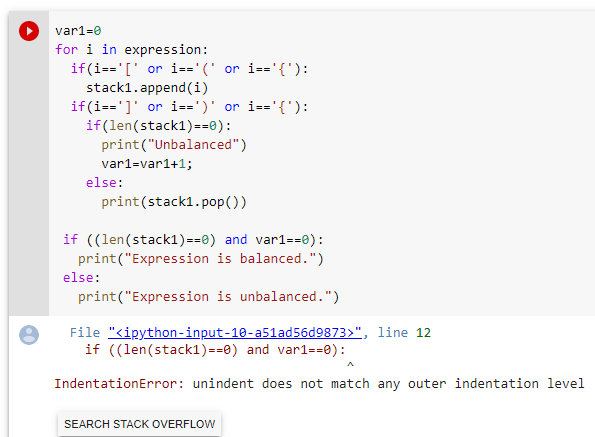
      print(stack1.pop())

 if ((len(stack1)==0) and var1==0):

   print("Expression is balanced.")

 else:

   print("Expression is unbalanced.")

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