Ex.No : 14

Date : 18/11/20

**Aim:**

To write a a python program to find the validity of a string of parentheses ('(', ')', '{', '}', '[' and ']).

**Program:**

def areBracketsBalanced(expr):

stack=[]

open\_expressions=['{','[','(']

for i in range(len(expr)):

if(expr[i] in open\_expressions):

stack.append(expr[i])

else:

if not stack:

return False

curr=stack.pop()

if(curr == '{' and expr[i]!='}'):

return False

if(curr == '[' and expr[i]!=']'):

return False

if(curr == '(' and expr[i]!=')'):

return False

if stack:

return False

else:

return True

if \_\_name\_\_ == "\_\_main\_\_":

expr=input()

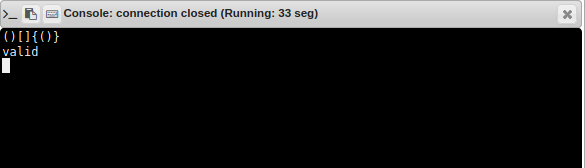
if(areBracketsBalanced(expr)):

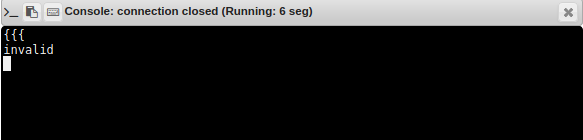
print("valid")

else:

print("invalid")

**Output:**





**Result:**

Thus the program to find the validity of a string of parentheses is executed and the output is obtained.