**EXERCISE:14**

**DATE:20.11.2020**

**AIM:**

Write a Python class to find validity of a string of parentheses, '(', ')', '{', '}', '[' and ']. These brackets must be close in the correct order, for example "()" and "()[]{}" are valid but "[)", "({[)]" and "{{{" are invalid.

**PROGRAM:**

def areBracketsBalanced(expr):

stack = []

for c in expr:

if c in ["(","{","["]:

stack.append(c)

else:

if not stack:

return False

current\_c = stack.pop()

if current\_c =="(":

if c!=")":

return False

if current\_c == "{":

if c!="}":

return False

if current\_c == "[":

if c!="]":

return False

if stack:

return False

return True

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

expr = input("input:")

if areBracketsBalanced(expr):

print("Output: Valid")

else:

print("Output: Invalid")

**LINK:**

http://103.53.53.18/mod/vpl/forms/edit.php?id=327&userid=1656

**OUTPUT:**

input:{}

Output: Valid

**RESULT:**

A Python class to find validity of a string of parentheses, '(', ')', '{', '}', '[' and '] is obtained successfully.