**EXERCISE NUMBER**:**14**

**DATE**:20/11/2020

**Aim:**

To 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=1734**](http://103.53.53.18/mod/vpl/forms/edit.php?id=327&userid=1734)

**Output:**

**Input:**

input:[]

**Output:**

Output: Valid

**Result:**

The program has been executed and expected output is obtained.