EXERCISE: 14

DATE: 22.11.2020

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 char in expr:

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

stack.append(char)

else:

if not stack:

return False

current\_char = stack.pop()

if current\_char =='(':

if char!=")":

return False

if current\_char == '{':

if char!='}':

return False

if current\_char == '[':

if char!="]":

return False

if stack:

return False

return True

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

expr = "{()}[]"

if areBracketsBalanced(expr):

print("valid")

else:

print("invalid")

LINK:

<http://103.53.53.18/mod/vpl/forms/edit.php?id=327&userid=1699>

OUTPUT:

![A picture containing text

Description generated with very high confidence]()

RESULT:

The output for the given class diagram is obtained successfully.