**EXERCISE: 14**

**DATE: 23.11.2020**

**AIM:**

To write a Python class to find 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")*

**LINK:**

[***http://103.53.53.18/mod/vpl/forms/submissionview.php?id=327&userid=1661***](http://103.53.53.18/mod/vpl/forms/submissionview.php?id=327&userid=1661)

**OUTPUT:**

*{)*

*invalid*

**RESULT:**

The validity of a string of parentheses is successfully verified.