

*Exercise:14*

*Date: 20/11/2020*

*AIM:*

*To write a Python program to find the validity of a string of parentheses.*

*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]!='}'):

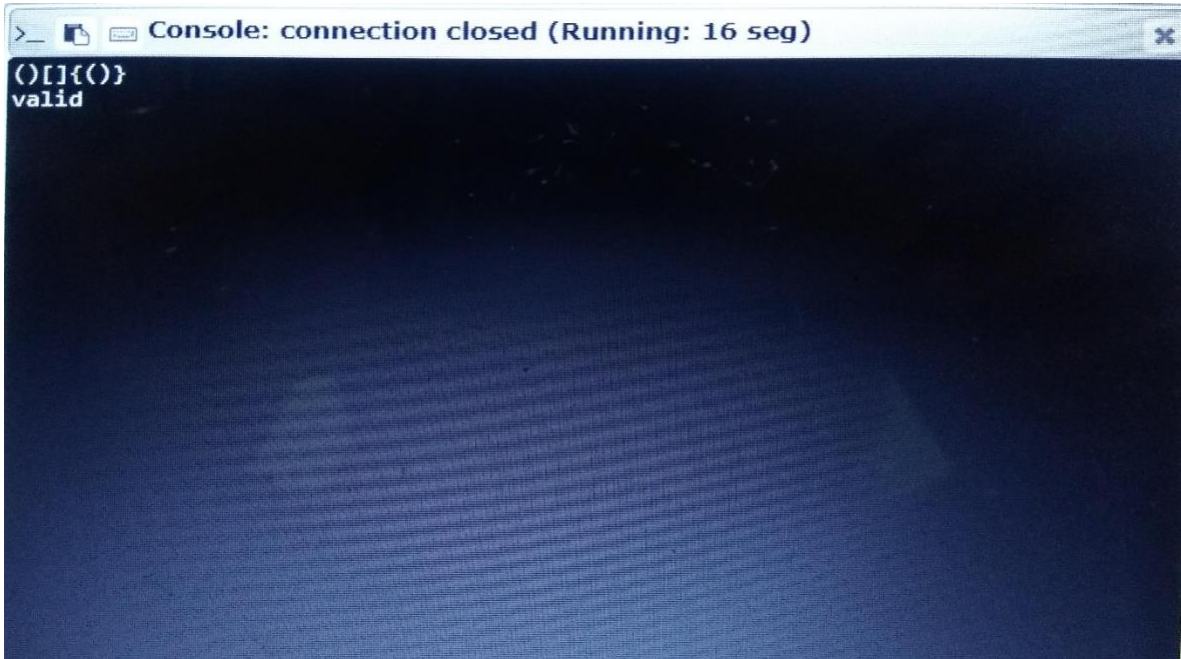
```

```
        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")
```

MOODLE LINK:

<http://103.53.53.18/mod/vpl/forms/edit.phy?id=328&userid=1794#>

*OUTPUT:*



A screenshot of a console window with a dark blue background. The title bar at the top reads ">\_ Console: connection closed (Running: 16 seg)". The console displays the input string "()[{}()}" on the first line and the output "valid" on the second line.

```
>_ Console: connection closed (Running: 16 seg)
()[{}()}
valid
```

*RESULT:*

*The python program to find the validity of the string of parentheses is executed and output is verified*