

A balanced delimiter starts with an opening character ((, [, {), ends with a matching closing character (),], } respectively), and has only other matching delimiters in between. A balanced delimiter may contain any number of balanced delimiters.

Examples

The following are examples of balanced delimiter strings:

(){}

({})

{()}

The following are examples of invalid strings:

()]

([

{}

{ }

Input is provided as a single string. Your output should be True or False according to whether the string is balanced. For example:

Input:

({})

Output:

True

ANS:

```
def is_balanced_delimiters(input_str):
    stack = []
    opening_chars = '({['
    closing_chars = ')}]'

    for char in input_str:
        if char in opening_chars:
            stack.append(char)
        elif char in closing_chars:
            if not stack:
                return False
            top_char = stack.pop()
            if opening_chars.index(top_char) != closing_chars.index(char):
                return False

    return not stack

if __name__ == "__main__":
```

```
input_str = input("Input: ")
result = is_balanced_delimiters(input_str)
print("Output:", result)
```

OUTPUT:

```
PS C:\Users\shabnam\Documents\Peace Wisdom\pace> & 'C:\Users\shabnam\Documents\Peace Wisdom\pace\python.python-2023.12.0\pythonFiles\lib\python\debugpy\adapter\python.exe' -c 'import sys; sys.path.append(r"C:\Users\shabnam\Documents\Peace Wisdom\pace\p.py"); import p; p.run()'
Input: ([{}])
Output: True

PS C:\Users\shabnam\Documents\Peace Wisdom\pace> c:: cd 'C:\Users\shabnam\Documents\Peace Wisdom\pace\p.py'
Input: {[{}]}
Output: True

PS C:\Users\shabnam\Documents\Peace Wisdom\pace> c:: cd 'C:\Users\shabnam\Documents\Peace Wisdom\pace\p.py'
Input: [{}]}
Output: False

PS C:\Users\shabnam\Documents\Peace Wisdom\pace> 
```

connection