



K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

ACADEMIC SESSION 2025-26
Odd Semester



CHECK BALANCED PARANTHESIS USING STACK

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```
def is_balanced(expression):  
    stack = []  
    pairs = {')': '(', '}': '{', ']': '['}  
  
    for char in expression:  
        # Push opening brackets to stack  
        if char in "({[":  
            stack.append(char)  
  
        # For closing brackets  
        elif char in ")}]":  
            if not stack: # Stack empty but closing bracket found  
                return False  
            if stack.pop() != pairs[char]: # Mismatched pair  
                return False  
  
        # If stack is empty → balanced  
    return len(stack) == 0  
  
# Example  
exp = "{[()()]}"  
print("Expression:", exp)  
print("Balanced?" , is_balanced(exp))
```