

# BALANCED PARANTHESES

We are given a parantheses string and our job is to determine if it is a valid parantheses string.

We use a stack to store all opening brackets and pop when a closing bracket appears. If the popped bracket does not correspond to the closing bracket, string is invalid.

Pseudocode :

```
balancedParantheses(String s) {  
    Stack<char> st;  
    for (int i = 0 ; i < s.length() ; i++) {  
        if (s[i] == '{' || s[i] == '(' || s[i] == '[') {  
            st.push(s[i]);  
        } else if (s[i] == '}' || s[i] == ')' || s[i] == ']') {  
            char p = st.pop();  
            if (p != '{' || s[i] != '}' || p != '(' || s[i] != ')' || p != '[' || s[i] != ']') {  
                return -1;  
            }  
        } else if (s[i] == '(' || s[i] == '[' || s[i] == '{') {  
            char p = st.pop();  
            if (p != '(' || s[i] != ')' || p != '[' || s[i] != ']' || p != '{' || s[i] != '}') {  
                return -1;  
            }  
        } else if (s[i] == ')' || s[i] == ']' || s[i] == '}') {  
            char p = st.pop();  
            if (p != '(' || s[i] != ')' || p != '[' || s[i] != ']' || p != '{' || s[i] != '}') {  
                return -1;  
            }  
        }  
    }  
}
```

```
if (p != '\0') {  
    return -1;
```

```
}
```

```
}
```

```
return 1;
```

```
}
```