

CTP Lab 2 120 minutes

Question - 1 Java Stack

Problem Statement

Write a Java class named Parser and implement a method called checkParenthesisBalance(String). This method must return true if a parsed argument contains one or more sets of balanced brackets (i.e.: curly braces and/or parentheses) or false otherwise.

A string is balanced under the following conditions:

- 1. It is the empty string.
- 2. If A and B are correct, then AB is correct.
- 3. If A is correct, then (A) and {A} are correct.

Some examples of balanced strings are $\{\}()$, $\{()\}$, and $(\{()\}).$

Some examples of unbalanced strings are $\{\}(, (\{\})\}, ((,$ and }{.

Do not concern yourself with I/O operations; just write the correct class and method.

Sample Input#00

```
{}()
(\{()\})
{}(
```

Sample Output#00

```
true
true
false
```