

Programming Assignment 9-2

Create a class `SymbolBalancer` that has a constructor

```
SymbolBalancer(String filename)
```

which accepts the name of a file to examine, and that also has a method

```
boolean symbolsBalanced(String delimiters)
```

The `delimiters` argument is a list of all pairs of delimiters that will be used by your `symbol balanced` method. For example, here is a possible value of the `delimiters` parameter:

```
"[] () {}"
```

The `String` that is passed into this argument must be parsed. You can do this in a loop with repeated calls to `charAt`.

Also, you should provide an instance variable `text` that will store the text to be parsed (which you will extract from the input file).

Your method `symbolsBalanced` should return `true` if the open/closed pairs of delimiters specified in the `delimiters` argument, as they occur in the text that is being examined, are balanced; `false`, otherwise.

We will explain more formally how to read a file in a later lesson. For now, use the `readFile()` method provided below to store the file content in a `String` named `text`. The following sample code shows how this can be done:

```
void readFile() {  
  
    try (BufferedReader br =  
        new BufferedReader(new FileReader(filename))) {  
        String currentLine;  
        StringBuilder builder = new StringBuilder();  
  
        while ((currentLine = br.readLine()) != null) {  
            builder.append(currentLine);  
        }  
  
        text = builder.toString();  
  
    } catch (IOException e) {  
        e.printStackTrace();  
    }  
}
```

Create a `readFile()` method like the sample above. (Your constructor should call this method immediately after setting the input file name.) Test your symbol-balanced-checking code in a `main` method by reading in the `Employee.java` class (provided in a folder in this directory) using `readFile()`. (See the `readme` file for instructions about where to place the input file in your directory.) In your call to `symbolsBalanced()`, pass in the following `String` of delimiter pairs: `"[]{}<>()|"`. Your `main` method should simply output either `"true"` or `"false"` to the console, indicating the result of the symbol-balanced test.