

```
public static int compute(String string1, String string2) {  
    int x;  
    if (string1.length() < string2.length()) {  
        x = string1.length();  
    } else {  
        x = string2.length();  
    }  
    int result = 0;  
    for (int i = 0; i < x; i++) {  
        if (string1.charAt(i) == string2.charAt(i)) {  
            result++;  
        }  
    }  
    return result;  
}
```

The image displays a Java code snippet for a function named `compute` that takes two strings, `string1` and `string2`, and returns the number of matching characters at the same index. The code is annotated with a network diagram consisting of nodes (colored circles) and edges (colored lines). The nodes are color-coded to represent different parts of the code: purple for the function signature and the first `if` block, red for the `else` block, orange for the loop and the `result` variable, and yellow for the inner `if` statement. Edges connect related elements, such as the loop variable `i` to the `charAt` calls and the `result` variable to the `result++` statement.