

```
public static int compute(String text) {  
    int result = 0;  
    for (int i = text.length() - 1; i >= 0; i--) {  
        char c = text.charAt(i);  
        if ((c >= 'a' && c <= 'z') || (c >= 'A' && c <= 'Z')) {  
            result++;  
        } else {  
            break;  
        }  
    }  
    return result;  
}
```

The diagram illustrates the control flow of the provided Java code. Nodes, represented by colored circles, are placed at key points in the code: the start of the function, the initialization of 'result', the start of the 'for' loop, the 'charAt' call, the 'if' condition, the 'result++' statement, the 'break' statement, and the 'return' statement. Lines connect these nodes to show the flow of execution. A yellow line traces the path from the start to the 'return' statement. An orange line shows the loop's progression, including the 'break' and the return. Purple and red lines represent the 'if' condition's logic, showing how it branches based on whether the character is alphanumeric. Grey lines show the flow from the 'for' loop's start to its end and back to the 'return' statement.