

```
public static String removeDoubleCharacters(String str) {  
    if (str.isEmpty()) {  
        return str;  
    }  
    StringBuilder result = new StringBuilder();  
    char prev = str.charAt(0);  
    result.append(prev);  
    for (int i = 1; i < str.length(); i++) {  
        char cur = str.charAt(i);  
        if (prev != cur) {  
            result.append(str.charAt(i));  
        }  
        prev = cur;  
    }  
    return result.toString();  
}
```

The diagram consists of numerous colored circles (nodes) in shades of purple, yellow, orange, and red, connected by thin lines. The nodes are distributed across the image, with a higher density around the code text. The connections form a complex web, with some lines being straight and others curved, suggesting a network or dependency graph related to the code analysis.