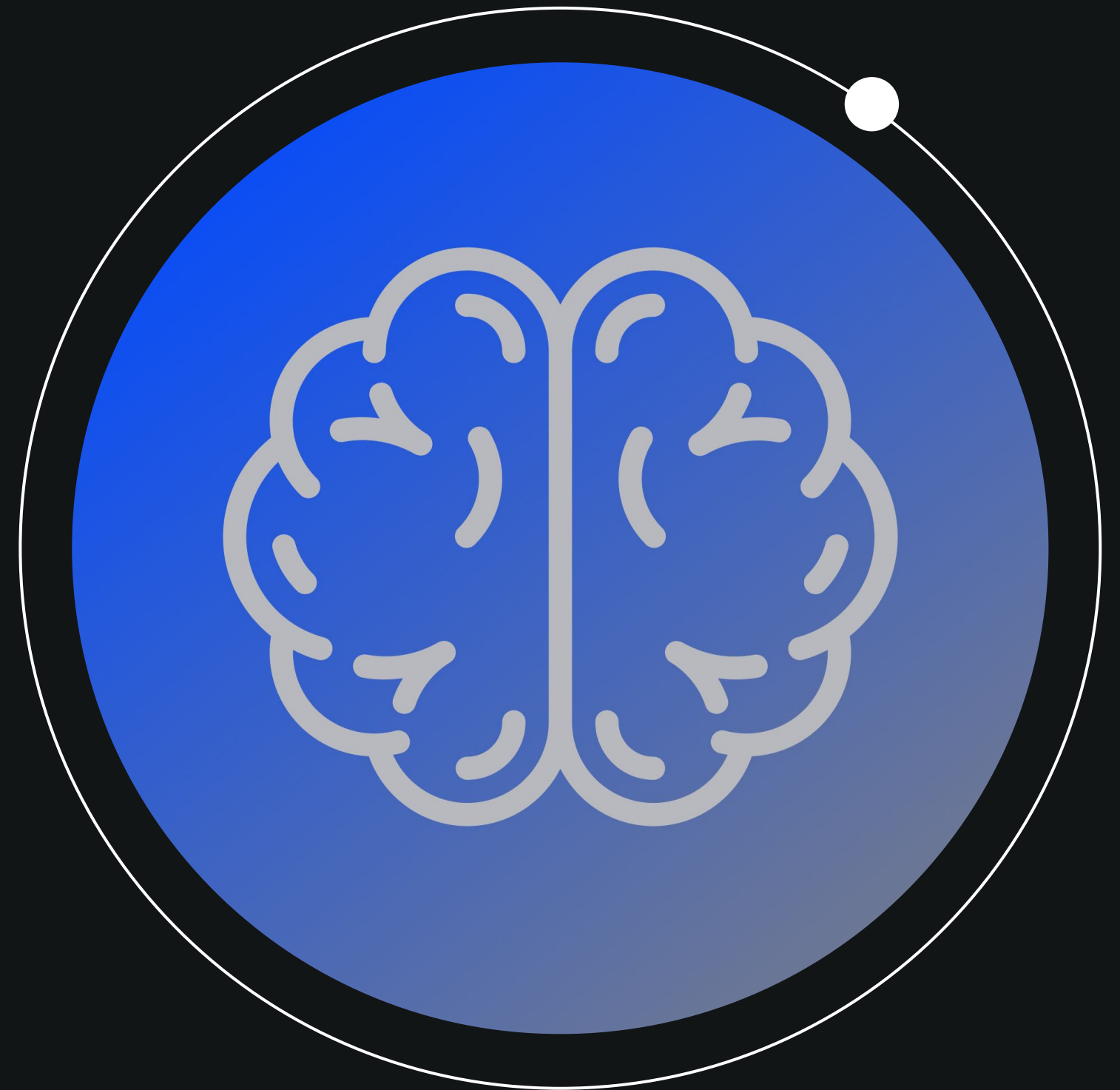


# Understanding Code Better

A Documentation Plugin powered  
by AI

System slayers 🧩  
26/05/2024



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# Introduction

The **problem** with documentation:



time-consuming  
process



boring and tedious



easily outdated

Consequences of **improper**  
documentation:

→ hard to get someone new  
on-boarded

→ hard to get started with a  
new issues

→ wasting developer hours by  
asking questions

Problem:

No one wants to write documentation



Solution:

AI generated documentation files

→ Always up-to-date

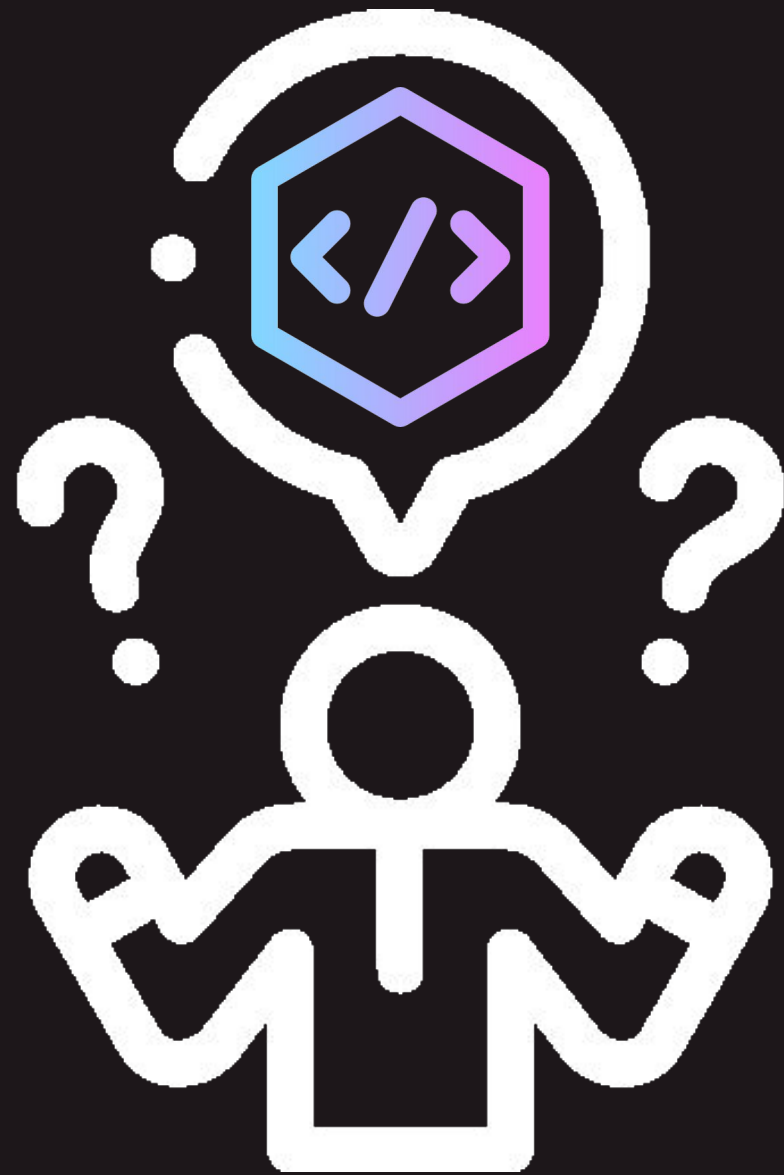
→ Documents details the developer might have forgotten

→ Creates Mind-maps, graphs and tables for a better visualization

→ Clear explanation of the dependencies in the implementation

# Mind-map

Problem:  
Not knowing where to  
start



Solution:  
Searching through the mind  
map

→ Easy to navigate

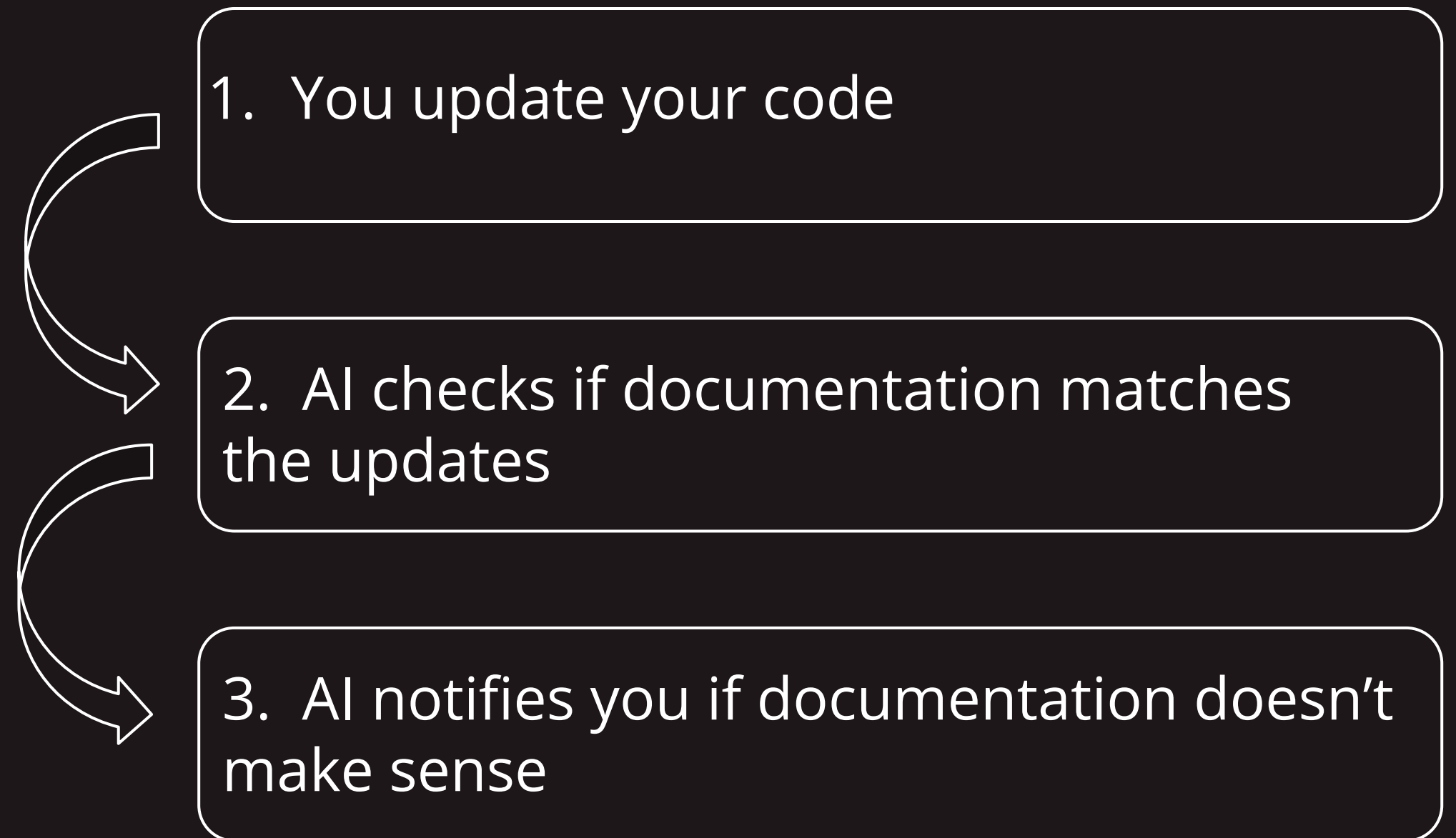
→ Quick access to any part  
of the project

→ Perfect for onboarding

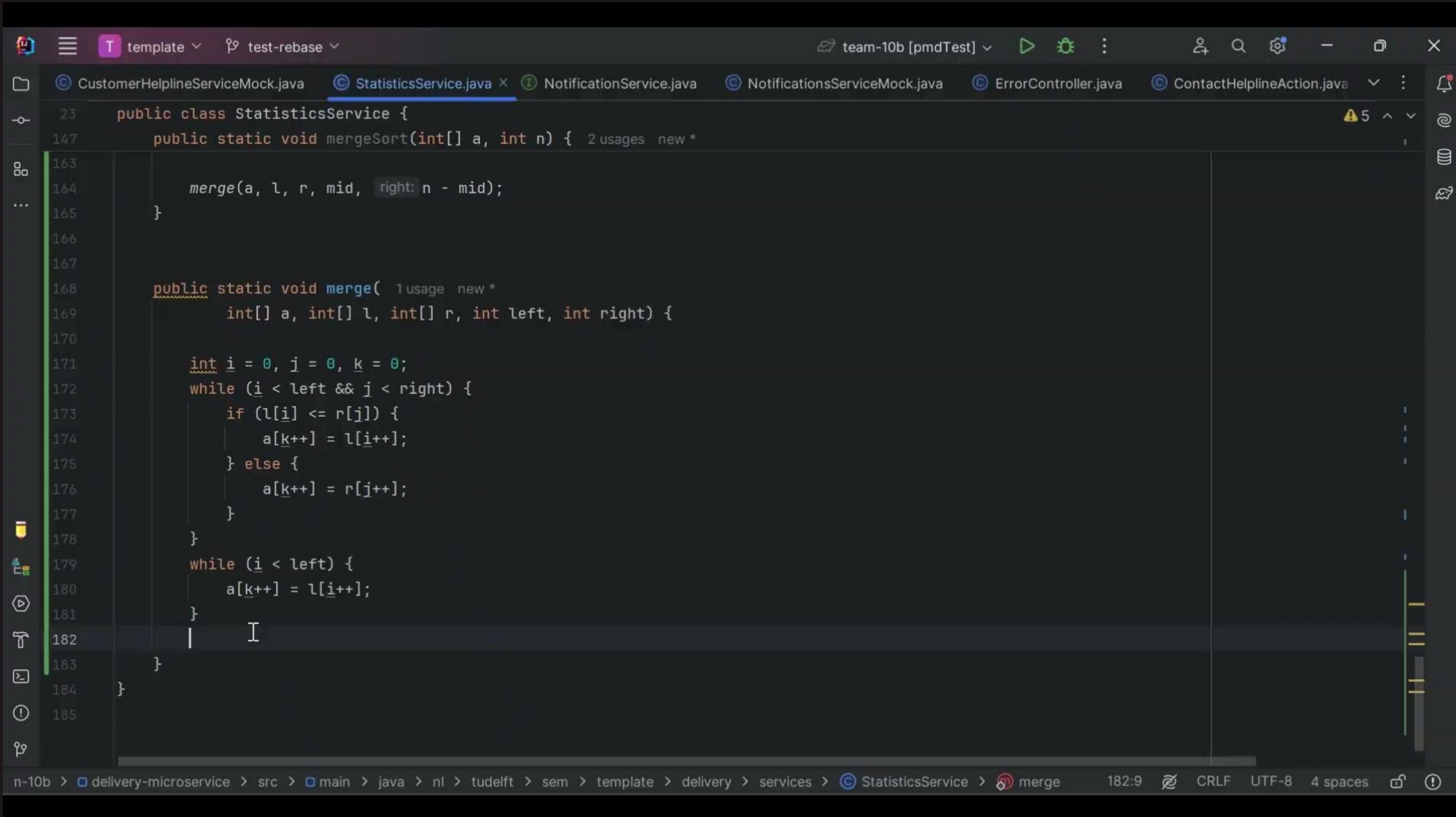
Problem:  
Outdated documentation



Solution:  
AI generated comments



# Smart Documentation



```
23 public class StatisticsService {
147     public static void mergeSort(int[] a, int n) { 2 usages new *
163         merge(a, l, r, mid, right: n - mid);
164     }
165
166
167
168     public static void merge( 1 usage new *
169         int[] a, int[] l, int[] r, int left, int right) {
170
171         int i = 0, j = 0, k = 0;
172         while (i < left && j < right) {
173             if (l[i] <= r[j]) {
174                 a[k++] = l[i++];
175             } else {
176                 a[k++] = r[j++];
177             }
178         }
179         while (i < left) {
180             a[k++] = l[i++];
181         }
182         |
183     }
184 }
185 }
```

n-10b > delivery-microservice > src > main > java > nl > tudelft > sem > template > delivery > services > StatisticsService > merge 182:9 CRLF UTF-8 4 spaces



## Problem:

The code you're writing already exists, it's just badly documented



## Solution:

Finding similar methods



1. AI analyzes conceptually the code you're writing

2. AI shows a warning

3. AI redirects you to the code that has the same functionality

Conceptual  
Duplicates

# Conclusion

Documentation does not have to be a chore

Onboarding does not have to be hard

Navigating code does not have to be time-consuming

