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Credit Name: Chapter 11

Assignment Name: Word Count

How has your program changed from planning to coding to now? Please explain?

At the beginning of Word Count , my goal was straightforward: read a text file, count the words, and calculate the average word length. Initially, I planned to split words by spaces, but during coding, I realized I needed a more accurate method. This led me to use the regular expression `\\W+` to handle punctuation and other special characters.

As I moved from planning to coding, I also encountered syntax errors like missing brackets and issues with file handling. Implementing try-catch blocks for file reading was essential to prevent crashes due to missing files or IO errors, something I hadn't considered in my initial plan.

One of the key adjustments I made was adding functionality to calculate average word length, which added more value to the program.

```
try (BufferedReader br = new BufferedReader(new FileReader(fileName))) {  
    String line;  
    while ((line = br.readLine()) != null) {  
        String[] words = line.split("\\W+");  
        for (String word : words) {  
            if (!word.isEmpty()) {  
                wordCount++;  
                totalLength += word.length();  
            }  
        }  
    }  
}
```

Overall, the program evolved significantly from my initial idea. By solving errors and refining my code, I developed a more complete and efficient program that both counts words and calculates the average word length. This project taught me to anticipate challenges and continuously improve my code during development.