

Credit Name: File Structures and Exception Handling

Assignment Name: WordCount

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

```
public static void main(String[] args) {  
    //Declaration area  
    File dataFile;  
    FileReader in;  
    BufferedReader readFile;  
    int avgLength, numWords;
```

I started out creating the variables I knew I would need for this project

```
try  
{  
    //Set up BufferedReader  
    dataFile = new File("C:\\Users\\1100062079\\git\\CS30P3F2024\\Chapter11\\src\\Masteries\\source.txt");  
    in = new FileReader(dataFile);  
    readFile = new BufferedReader(in);
```

I then added code to get ready to use BufferedReader

```
while (readFile.ready())  
{  
    int character = readFile.read();  
  
}  
readFile.close();  
in.close();
```

I then added a while loop that would read every character in the file.

```
//Char is a letter  
if(character >= 65 && character <= 90 || character >= 97 && character <= 122)  
{  
    checkLetter = true;  
    numChar++;  
}
```

I then checked the character's ascii value to see if the character was a letter or not. It would then add to the total letter count and set a boolean to true for later.

```
//Char is not a letter
else
{
    //Check if character is the end of a word
    if (checkLetter)
    {
        numWords++;
    }
    checkLetter = false;
}
```

I then added an else statement to check if the nonletter marks the end of a word. By using the boolean to check if the last checked character was a letter or not.

```
//adds to word count if file ends on a character
if (checkLetter)
{
    numWords++;
}

//calculate average word length
avgLength = format.format((double)numChar/numWords);

//display
System.out.println("Number of words: " + numWords);
System.out.println("Average word length: " + avgLength + " letters. ");
```

Finally I added the code to output the number of words and the average length to the screen. I used decimal format as well to show 2 decimal places for the average length. I also added code to add to the word count if the file ends with a letter.