I have developed this code mostly using the basic array objects. I had split the file into lines using the usual scanner object and passed the delimiter. I then thought that initializing the array with a certain input would waste memory space. I then implemented a way to optimize the array by copying it into an array of exact size. This way I freed up memory space.

I then iterated over the array of lines and feeding each line to a method, which would return me the duplicate words in that line. In this method I have split the line into tokens using StringTokenizer and then wrote a classic O(n2) loop which would give me the number of occurrences of a word in the array. I used this number of occurrences to write the words in a final resultant array of duplicates. This is then passed to pretty Print method to print the result as per the expected output result. The iteration moves to the next line.

This code though is not loosely coupled, but gives the developer a way to extend the code because the way lines or words are being processed is done in methods. The implementation in these methods can be changed as per the requirement and well-documented code helps in the better understanding of the code by the future developers. It is quite modular in it’s own ways.

I had checked in these codes part by part. Each part was tested and then I moved on developing another part after thorough testing. This helped me in thinking from an integration of code through parts perspective. I also learnt how to comment the code, and then generate the javadocs for this code. I also enjoyed committing the code after a successful output that I was expecting.