**HOMEWORK 5 – REPORT**

**BufferReader**

We chose to use BufferReader to read our input rather Scanner. This choice was made, having in mind that Scanner is more Programmer Friendly but BufferReader is much faster. We picked BufferReader and Valentinos Pariza made sure to cover up all the methods required to modify Strings creating his own StringManipulation class.

**ArrayLists**

We used an ArrayList with a String array generic ( ArrayList<String[]>) to represent each sentence of the input files with its words separated. We used that ArrayList<String[]> because it’s a fast method to store an unknown number of sentences and later on it’s fast to use it. The separation process was delivered using the StringManipulation class that Valentinos Pariza designed and created to achieve faster String splitting and String manipulation than using the standard methods.

**HashMaps**

A HashMap was used to represent the semantic descriptors of each word. We used a HashMap because it represented exactly what we wanted to achieve. The HashMap has as key all the unique words after reading the input files and as value it has another HashMap with keys all the unique words and as values the repetition value when each word is found within the same sentence with the key of the outer HashMap.

A HashMap like that is declared as follows: HashMap<String,HashMap<String,Integer>>