**Name: Kush Raina**

**ID: 1001567809**

**Summary:**

This program is implementation thesaurus dictionary, using client-server architecture. This program is part of the course CSE 5306 Fall 2017. I have developed this program in Java 8.

**Instructions:**

1. Import java project attached in the zip file in Eclipse.
2. Once you import the project in eclipse you will be able to see four java files in the project along with the thesaurus.txt file in which you can see the list of words which you can search in this application.

* addWord.java
* clientGUI.java
* clientWindow.java
* serverWindow.java

1. First of all we will start the server and for that click on serverWindow.java and run as java application.
2. After the server has started we can start the client by clicking on clientGUI.java and run it as java application.
3. Client window will open up where you will find three buttons along with test box where you can enter the word which you want to search.[you can search the list of words which you can enter from thesaurus.txt file]
4. After you have entered the word which you want to search click on the submit button to search the word in the dictionary.
5. You will see two windows being popped up , where one is client console window and another is server console window.
6. In client console window you can see the synonyms of words along with the word which you want to search separated with an equal sign and synonyms separated with comma.
7. In server console window you can see the messages from server i.e. what word it has received from client and whether server is up and running and if server has found the word in the file.
8. User can search for another word if he wants to by clicking on SEARCH AGAIN button which will open client GUI which we saw on the first where user can again search for the word it wants.
9. User can exit from any of the screens anytime by clicking on the EXIT button which will exit them from the operations of current GUI.

**Special Features [ADD A NEW WORD]:**

1. I have added the feature of adding new word in the dictionary in this application.
2. When user starts the clientGUI application , user will be able to see clientGUI window where he can see addWord Button which is used to add new word in the dictionary.
3. When user clicks on the addWord button user will be navigated to another window where user will be told to add a word and corresponding synonyms for that word and click submit.Word will be added to the thesaurus.txt file and can be seen in the file directly.
4. After adding the word user will be navigated to clientGUI window where he can search the word which he has added to the dictionary.

**NOTE**: The add word window is coming in minimized format when we press add new word button so please maximize it to enter the word which you want to add if you are not able to see the add new word window.

I have referenced my code from below given URL’s:

1. <https://www.youtube.com/watch?v=kqBmsLvWU14>
2. <https://www.youtube.com/watch?v=MFAL8x7ipsA&t=36s>
3. <https://www.mkyong.com/java/how-to-read-file-from-java-bufferedreader-example/>
4. <https://www.youtube.com/watch?v=vCDrGJWqR8w&t=1138s>