**Minimum Requirements**

* Dictionary and data structures
* Translating single words
* Translating phrases
* Translating a file
* User able to add/remove words to/from the dictionary
* Displaying the dictionary
* Producing a standalone program
* GUI
* Translating grammar correctly
* More languages
* Efficiency

**Initial Design**

How to store phrases: hashtables

How to store words: Directed Acyclic Word Graph (DAWG or DAFSA)

Translate: phrases first, words once options are exhausted

Words/Phrases stored as JSON

Class Word

Boolean isWord

List<Language>

Class TranslatedWord

String id (language)

String word

Erik – GUI

Carim – Trie

Callum – Hashtable

Website history:

<http://docs.oracle.com/javase/7/docs/api/java/util/StringTokenizer.html>

<https://github.com/CarimA/AC12001-Team-Project-Translator>

<https://github.com/rttlesnke/dawg-java/blob/master/src/Dawg.java>

<http://stackoverflow.com/questions/3806788/trie-data-structures-java>

<https://community.oracle.com/thread/2070706>

<https://blog.udemy.com/java-dictionary/>

http://javarevisited.blogspot.co.uk/2012/01/java-hashtable-example-tutorial-code.html