Assignment 1

Lab Explanation

The requirements for this assignment were to create a program that would return words based on a desired user file and character input.

Code

```cpp
#include <iostream>
#include <fstream>
using std::ifstream, std::cout, std::cin, std::string;

int main() {
    ifstream inFS;
    string fileName;
    string fileString;

    cin >> fileName;
    inFS.open("../" + fileName + ".txt");

    if (!inFS.is_open()) {
        cout << "Could not open file." << '\n';
        return 1;
    }

    char desiredChar;
    cin >> desiredChar;

    inFS >> fileString;

    int numRead = 0;
    while (!inFS.fail()) {
        if(fileString[0] == desiredChar) {
            cout << fileString << '\n';
            ++numRead;
        }

        inFS >> fileString;
    }
    if (!inFS.eof()) {
        cout << "Input failure before reaching end of file." << '\n';
    }

    if(numRead == 0)
        cout << "No synonyms for " << fileName << " begin with " << desiredChar << '.' << '\n';

    inFS.close();

    return 0;
}
```

My code first opens the file and then iterates through each word in the file. It will then ONLY output the words that start with the desired character, which is inputted from the user

Test 1

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
educate c
civilize
coach
cultivate
Kierans-MacBook-Air:output kllarena$
```

Test 2

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
educate a
No synonyms for educate begin with a.
```

Test 3

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
happy j
joyful
jovial
joyous
jubilant
```

Test 4

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
happy s
No synonyms for happy begin with s.
```

Test 5

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
goal o
objective
Kierans MacBook Air:output kllarena$
```

Test 6

```
Kierans-MacBook-Air:output kllarena$ ./"Kieran_Llarena_Thesaurus"
goal t
No synonyms for goal begin with t.
```