Lab 13
ID1303: Introduction to Programming

1. Write a program to read the file "1000CommonWords.txt" and print all the 7-letter words in this file on screen.

2. Write a program to accept a number $1 \leq n \leq 112$ and print the symbol and name of the element with atomic number n; use the file chemicalElements.txt and the atoi function.

3. **[Optional]** Write a program to accept a year between 1939 and 2019 and print the name of the movie that won the Academy Award for best picture in that year; use the academylist-movies file.

4. (a) A *heterogram* is a string in which no character is repeated. An example is the word Apricot, while Apple is not a heterogram. Write a function IsHeterogram that accepts a string and checks whether it is a heterogram.

   (b) Read the file 12letterWords.txt and create a file called 12letter-Hgrams.txt that contains all 12-letter heterograms. You should find 146 such words, with Adjunctively being the first and Zanthoxylums being the last.

5. Create a copy of redSanta.bmp in which the color of Santa's suit is changed from red to some other color of your choice.