The Department of Sociology might be interested in a study of the qualities that people believe they possess. With the careful use of hidden microphones and speaking software, it has been possible to obtain transcripts of several conversations. Let's see what people think of themselves ...

Write a program (3%) that:

- Opens a file called `MyQualities.txt` for writing.
- Repeatedly ...
    - Reads a sentence from the keyboard (using `fgets`).
    - Checks if the sentences starts with "I am " (using `strstr`)
    - If it does, then extracts the substring starting at the 5th character, i.e., the substring containing the quality the person believes they possess. (using `strncpy`).
    - Concatenates the substring onto a growing string containing all such qualities, with a comma separator (using `strncat` - the growing string has a maximal length of 1024 characters).
    - Appends the substring to the `MyQualities.txt` file.
    - Stops looping when a string containing just a "." is entered (check using `strcmp`).
- Outputs the grown string of qualities to the screen.
- Opens the `MyQualities.txt` file for reading
- Reads and echo the qualities from the file
- Deletes the file

Here's what a sample run should look like (with the keyboard input shown in italics) ...

```
Please enter sentences, . to end.
Hello everyone
I am very clever
Most people are not
I am good looking too
I am really good looking
You are ugly
I am confident
.
The qualities are very clever, good looking too, really good looking,
confident.

Confirming the saved qualities ...
very clever
good looking too
really good looking
confident
```

Write a program that (3.0%)

- Reads in a string and a regular expression
- Splits the string into sentences
- For each sentence
    - Outputs the sentence
    - Prints either "Yes" or "No" depending on whether the regular expression occurs in the sentence.
    - Splits the sentence into words, and outputs the number of words in the sentence

Assume that sentences are terminated by one of `.!?`, and that words are space separated. You will need to, and must, use `strtok_r` for spliting the strings.

Example run:

```
Please enter the string to analyse
abba and a bee. aah mama mia. there we go again. in the city of miami.
Please enter the regular expression : a[bm].*[ai]
abba and a bee
Yes   4 words
aah mama mia
Yes   3 words
there we go again
No    4 words
in the city of miami
Yes   5 words
```

Remarks:

- The assignment is due next Friday, Apr. 24th, 11:59PM.
- You need to submit the `qualities.c` and `regexp.c` files with the corresponding C code using submit2 (Please DO NOT submit compiled executables)! Furthermore, the C code needs to compile without any warnings (otherwise the Nelson will not consider it)!