

Assignment 4 (explain_the_phrase.cc)

Lergom in the previous assignment was said to “be off on the wrong foot”. That is of course a phrase for “starting out the wrong way”. It turns out a list of more phrases and idioms are available in `given_files/phrases.txt` (from www.goenglish.com). The file has groups of lines in which the first line contain a phrase and the next few lines uses that phrase in a context in order to explain the phrase. The last line in each group is empty.

Functional requirements

Write a program that uses the file to explain phrases. Ask for a keyword and find all phrases containing that keyword. Print the example of how to use each found phrase. The default file to open is `given_files/phrases.txt`, and if you fail to open that file you must ask the user for a new file until the user enters a valid file. Examples below describe how your program must work. You do not have to consider upper/lower case differences.

Non-functional requirements and presumptions

1. You may only open the file once (you may seek in the file). You may fail to open the file any number of times.
2. You may not presume a fixed number of phrases, the file will grow beyond your presumption or another file will contain more phrases than your presumption.
3. You may (but need not) store the entire file content in memory, but you must in that case carefully observe requirement number 2 just above this.
4. You may presume that each line is shorter than 1000 characters.

Examples running the program three times

```
Enter a keyword of the phrase to explain: hand
```

```
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```

```
A bird in the hand is worth two in the bush
```

- ```
- "Dan has asked me to go party with him. What if my boyfriend finds out?"
- "Don't go. A bird in the hand is worth two in the bush."
```

```

```

```
Never bite the hand that feeds you
```

- ```
- "We have been your best customers for years. How could you suddenly
treat us so rudely? You should never bite the hand that feeds you."
```

```
Enter a keyword of the phrase to explain: dozen
```

```
----
```

```
A dime a dozen
```

- ```
- "I don't need friends like him; they are a dime a dozen."
```

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```
Enter a keyword of the phrase to explain: safe
```

```

```

```
Better safe than sorry
```

- ```
- "Should I bring my umbrella?"
- "Better safe than sorry."
- "Okay. I'll go get it."
```