Assignment III — Linked list
Article Reduction

TA: Ben

Deadline: 23:59, Nov. 4, 2020

● **Description:**

An article always has some repeated words. You are required to replace the repeated words with numbers. Thus, you need to create a linked list to store the words in the article. The word which does not appear in the linked list is stored in the head of the linked list. If the word has appeared in the linked list, you need to replace the word in the article by the current index of the word in the linked list. Subsequently, the word is moved to the head of the linked list. You should notice the following three rules, and Figure 1 shows the example of the rules.

(1) Index value starts to increase from 1.

(2) You need to process the case-sensitive words which are different such as 'Sun' and 'sun'.

(3) Special characters cannot be added to the linked list such as comma and period.

Figure 1: Example of applying article reduction rules

- **Sample input:**

```
I love dogs. Dogs love me.    article
```

- **Sample output:**

```
I love dogs. Dogs 3 me.    answer
```

- **Readme, comments and style:**

An indicator for good source code is readability. To keep source code maintainable and readable, you should add comments to your source code where reasonable. A consistent coding style also helps a lot when tracing the source code. For this assignment, please also compose a readme file in *.txt format and name it as "README.txt". This file should contain a brief explanation of how to use your program. Please remember to have your source code comments and readme file in English.

- **Submission:**

To submit your files electronically, login DomJudge website through the following url :

http://140.123.102.98:12345/

Press the submit button and choose the homework questions you want to submit. After submitting your code, DomJudge will give you a result to tell you whether your code is correct or not. However, during the demo time, your code will be evaluated by different sets of test cases. Please make sure your code can work correctly based on the description above. Additionally, you must compress your code and the README file into a zip file and upload it to Ecourse2.

- **Grading policies:**

The TA(s) will mark and give points according to the following rules:
70% - Correctness of answer.
30% - Readme, comments and coding style.