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IMPLEMENTATION OF BEALE CIPHER

ALGORITHM

The Beale cipher is a type of substitution cipher, where each letter in the plaintext is replaced by a given number.

The encryption process requires:

- Plain text which you would like to encrypt.
- A random book or a text document.
- Open a random book or text document, and start numbering each word.
- Once done, we gradually start converting every letter in the plain text document, with the numbers starting from the beginning of the random book (or text document), by finding the word where the first letter in the word of the source book, matches the letter you want to encrypt in the plain text document.
- We repeat the process for all letters in the plain text.

1. In my text document the first page has a paragraph that goes as follows:

The sun is undeniably beautiful at this hour.

I had fun today. Next time, it will be even better.

2. If I number the text, it will look as follows:

1The 2sun 3is 4undeniably 5beautiful 6at 7this 8hour.

9I 10had 11fun 12today. 13Next 14time, 15it 16will 17be 18even 19better.

3. Now to encrypt my plain text, which only has one word in it "**fun**", I will find the words which begin with a letter that matches my plain text word letters, and replace them with the matching numbers:

4. fun => 11,4,13

EXECUTION

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BEALE Cipher Encryption and Decryption  
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Enter the name of the book file: file.txt  
Enter the plaintext: f  
The encrypted text is : 6416936
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EXECUTION ERROR

I faced a lot of problems trying to retrieve the exact given numbers of the plaintext in the **hashtable**