

## **Pa2-2-2016 Problem**

A hash function is any function that can be used to map data of arbitrary size (e.g. a string of variable length) to data of fixed size (e.g. in integers). The values returned by a hash function are called hash values. Develop a program to take as input a hash value , h and a list of strings, and output which of the input string map to h when a string is hashed with the following steps.

- 01.Both lowercase and uppercase letters are assigned values as follows (e.g. a=1 , b=1 ...) any digit assigned value l (e.g. "8" gets 8) any other symbols in the string are ignored.
- 02.Obtain the product p of the value in step 1.
- 03.The hash value is obtained as follows. Where p is the product in step 2 above hash value =  $(p+743)\%8887$

Example "pp2"  $16*16*2=p=215$

Hash value  $(512+743)\%8887=1255$

You must get file name as input.

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|-------------|-------------|
| Input_1.txt | 1255        |
|             | 3           |
|             | Sri Lanka   |
|             | Programming |
|             | pp2         |