Function buildcodetable  
    input  
  
    key string buffer stores user entered string  
    codetable buffer stores data based on user entered keystring used to encrypt and decrypt files  
      
    output  
    value of true if original key string legitimate  
  
procedure  
    change any lowercase letters to uppercase calling strtoupper  
    , passing as arguments string buffer and returning a value of false if the input string contains any non-alphabetic  
    characters; else, a value of true is returned and any lowercase  
    characters in the formal parameter will have been converted to  
    uppercase  
  
    if strtoupper return value is false  
        return value is false  
        exit      
      
    repeat for number of codes in codetable buffer  
        get the next character from key string buffer  
          
  
        if key string letter is not already used in the code table buffer  
            store key string in codetable buffer  
        else get next unused letter in reverse order (Z-A)  
            store character in codetable buffer  
          
        else if this end of key string   
        get next unused character in the code table buffer in reverse order (Z-A)  
        store character in codetable buffer  
  
  
  
-----------------------------------------  
function stringtoupper  
  
input  
  
String buffer stores keystring input by user  
  
output  
  
value of true if original key string legitimate, otherwise value of false  
  
Procedure  
  
    Repeat for each character and string buffer  
  
    If characters nonalphabetic  
    return false  
  
    Else if character from string buffer is lowercase  
    changed uppercase  
  
    return true      
----------------------------------------------  
  
Function encrypt file  
  
input  
input file containing data to be read and encrypted   
  
output file will write encrypted data  
  
code table buffer  
  
output  
  
  
procedure  
  
Repeat until reaching the end of input file  
  
    Read the next character from the input file  
    if the character nonalphabetic  
    right character to the output file  
  
    else for alphabetic characters  
        search code table buffer for the matching character  
        get mapped character from code table buffer  
        if the character from input file is lowercase convert mapped character to lowercase  
        write character to output file  
  
---------------------------------------------------------------------  
  
Function decrypt the file                              
  
input  
input file containing encrypted data to be read   
  
output file will write decrypted data  
  
code table buffer  
  
output  
  
  
procedure  
  
Repeat until reaching the end of encrypted input file  
  
    Read the next character from the encrypted input file  
    if the character nonalphabetic  
    right character to the output file  
  
    else for alphabetic characters  
        search encrypted code table buffer for the matching character  
        get mapped unencrypted character from code table buffer   
        if the character from input file is lowercase convert mapped character to lowercase  
        write character to output file  
  
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