Write a program in c/C++/Java to implement modified Playfair cipher algorithm.

Input: Read the keyword from the command line and plain text from the file.

Output: Playfair cipher matrix and cipher text as well as decrypted plain text.

Modified Playfair cipher follows the following procedure:

1. Remove any punctuation or characters that are not present in the key square (this may mean spelling out numbers, punctuation etc.).
2. Identify any double letters in the key and replace the second occurrence with an 'x' e.g. 'hammer' -> 'hamxer'.
3. If the plaintext has an odd number of characters, append an 'x' to the end to make it even.
4. Break the plaintext into pairs of letters, e.g. 'hamxer' -> 'ha mx er'
5. The algorithm now works on each of the letter pairs.
6. Locate the letters in the key square, (using the key square)
   1. If the letters are in different rows and columns, replace the pair with the letters on the same column respectively but at the other pair of corners of the rectangle defined by the original pair. The order is important – the first encrypted letter of the pair is the one that lies on the same column as the first plaintext letter.
   2. If the letters appear on the same row of the table, replace them with the letters to their immediate above respectively (wrapping around to the below side of the column)
   3. If the letters appear on the same column of the table, replace them with the letters immediately left respectively (wrapping around to the right side of the row)