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A290 Python

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Final Project

Problem Definition

Encoding and encoding the document file with password. If the password does not correct, the program still make a file but not possible to read file. The major purpose of this project is to protect the file secretly.

Input Description

Input can be any text file. It will be best if the extension is .txt.

Method

Encode

1. Get all the strings from the input file
2. Split by letter (making list)
3. change to ASCII code
4. check each letter how many number they use and append front of the number such as 34 becomes 234.
5. Reverse the code.
6. Change all number to 4 bits assigned binary code.
7. Change the password to all letter list.
8. Change the letter to ASCII code

9. Covert to binary.
10. Compare password and context each letter then if both 1 save 1 else 0. For example, if password 01 and context is 1111 then the result will 0101.
11. Append all number together as string and put on the result file.

Decode

1. Change the password to all letter list.
2. Change the letter to ASCII code
3. Covert to binary.
4. Compare password and context each letter then if both 1 save 1 else 0. For example, if password 01 and context is 1111 then the result will 0101.
5. Split the whole string that contains only 4 number per one element in list.
6. Change each element to decimal number.
7. Put all together.
8. Reverse the code.
9. Cut the number by first number show. Such as 31212722833102 will be [121, 72, 83, 102]
10. Convert to letter to corresponding ASCII code.
11. Append all then save to the result file.

Narrative Approach

The user just in put the input file name include the extension. Then input the password (the program will not tell whether the password is correct or not). Then input the result file name. Finally choose whether encode or decode. From this program we can easily encrypting the file.

Also I am pretty sure there would be very low chance to decode the file without this program nor password.