Chapter 7 Parallel Arrays – Encoded Message

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Instructions:

For this assignment, you will be providing the logic (plan) for the following program:

For this assignment, you will decode the coded message file you created in the Parallel Arrays program:

* Create your new program in the same folder used for the Parallel Arrays program. This will give you access to the file you created in your Parallel Arrays program.
* Copy the parallel arrays you used in the original program into your new program -- you will need to use the same parallel arrays in order to decode the message.
* Ask the user for the name of the file to import (the file you created in your previous assignment)
* Use try and except statements to ensure the file is there (Use a variable to store the file name, don't hard code it.)
* Use readlines to read the file into a list
* Step through the list (strip the \n!)
* Convert the coded message back into English and display the message on the screen (This can be concatenated to a string as you decode)

Data:

Functions

* Main(): main function, asks for user’s secret phrase
  + Variables / User input
    - Decoded\_message: String, will hold decoded message
    - File\_name: the file the user enters for us to decode
    - File: variable referencing the opened file to read

Processing:

1. Inform the user of the program’s goal
2. Ask the user for the file to decode
3. Use try / except
   1. If file can be opened, continue with program
   2. If file can’t be opened, tell the user and start over.
4. Create an empty string for the decoded\_message
5. Loop through the lines (each containing one character) in the file
6. Get the index of that character in the code array
7. Find the corresponding character in the alpha array
8. Concatenate the decoded character to the decoded\_message string
9. Display decoded string to the user

Output:

1. After receiving the user’s file name, I will output the decoded message. For example, if the file contained

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I

Z

g

I

Z

F

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D

q

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D

H

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1. The output on screen would be

This program will decode a coded text file.

What is the name of the file to decode? encoded.txt

This is a secret message!