

MATLAB SYNTAX/FUNCTIONS

- `importdata()` to import text file
import as cell by using `strcat()`
- `[num, str] = xlsread()` to import excel file
(`num` = matrix containing numbers
`str` = cell array containing letters and special characters)

MATLAB SYNTAX/ FUNCTIONS

- `num2str` and `cellstr` to convert `num` to string, then to a cell
- `{}` to concatenate `num` and `str` into 1 cell array

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INPUTS

- Write sample message and save as text file
- Encryption key
 - Write key in excel
 - Assign each character on keyboard to an encrypted character

IMPORT

- Text file to MATLAB
- Excel file to MATLAB

DATA

- Store text file into `nx1` cell (`n` = # of lines in sample message)
- Store excel file into single cell array, matching how it appears in excel

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SOLVE

- Encrypt the sample message:
- Match each char in sample message to the corresponding encrypted char
 - Store encrypted chars into `nx1` cell array

PRINT

- Print the new cell array, containing the encrypted message, to a new text file
- Display to user that encrypted file has been written

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MATLAB SYNTAX/FUNCTIONS

- nested *for loops* to loop through:
- each line of orig msg
 - each char of each line of orig msg
 - each encryption char
- nested *if statement*:
- to compare chars
 - return index of each char
 - store encrypted char in new cell

MATLAB SYNTAX/ FUNCTIONS

- `fopen()` and permission 'w' to open encrypted txt file for writing
- *for loop* and `fprintf()` to print each row of cell to txt file
- `%s\r\n` to skip to new line
- `fclose()` to close file

MATLAB SYNTAX/ FUNCTIONS

- `disp()` to display 'done writing..' to user
- *for loop* to display orig msg and encrypted msg to user
- use `fprintf()` with format spec `%s/r` to display both msgs