



# Advanced Programming

## COEN 11

Lab 10



# Lab 10

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- Create a directory for this lab
- Split the code you developed for lab 9 into 3 .c files
  - `main.c`, `list.c`, `files.c`
- Create a .h file for the definitions and global variables
  - Include (`#include`) the .h file in each .c file
  - The file containing function `main` should also declare and initialize the global variables.



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- Create a **makefile** to help in the compilation process
- Use the command **make** to run the makefile



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- Your text file will be encrypted
  - Encrypting
    - When saving the text file, **xor** each character with a key before writing it to the file
      - sprintf, xor loop, fprintf
  - Decrypting
    - When reading the text file, **xor** each character read from the file before inserting the data in the list
      - fgets, xor loop, sscanf



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- The same key is used to encrypt and decrypt
  - The key is `argv[3]`
    - In main, use `atoi` to convert the string to an integer
    - Pass the int key to the `save and read functions`



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To receive full credit:

- Pre-lab (10%)
  - Pseudo-code for the functions saving to and reading from the text file
- Demo (30%)
  - Show the TA your **makefile** and run the command **make**.
  - Show the TA that your new project executable works.
  - Try different keys
- Submit to Camino (60%)



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# End

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