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Algorithm Program #3
CS162 PSU

Algorithm for media

- Inside main function
  - Introduce the basic instruction and the use of your program.
    1. Prompt "Welcome Media!!!"
    2. Message with everything about the program.
       a. "
  - Notify the user the different options and basic controls of the program.
    i. Prompt "Once the program is done running you will have an option to quit or a different opt
  - Have a specific input in the program for different user options.
    i. Prompt message about the 4 different user interfaces.
       a. Option 1, Entering a new post to save.
          i. Call on the input function.
          ii. Store the valuable information.
       b. Option 2, Displaying all posts and their stats.
          i. Call on the display function.
          ii. After displaying the information to the user then loop back.
       c. Option 3, Saving all the posts to an external data file.
          i. Call on the save function to save everything to a txt file.
          ii. After saving everything in there, then loop back to the menu.
       d. Option 4, Loading from external data file
          i. Call on the external data file to load everything
          ii. After loading everything from the external data file loop back to the menu.
  - After the user has picked the different user interfaces, proceed to the chosen function
  - Quit the program and the while loop once the user has quit.

- struct named media above the main function
  - The size of all these max out on 10 items.

- Have a char variable, with the author of the post.
- Have a char variable, with the title of the media.
- Have a char variable,with the website url or video link. (e.g., http://youtu.be/j0qyECevZTU)
- Have a char variable, with the text of the post.
- Have a int variable with the number of likes
- Have an int variable with the number of dislikes.

- input function, option 1
  - Inside the input function
    1. Prompt users to enter their author of the post.
       a. Use an input function to get the user input.
       b. Store this information inside the struct author array.
    2. Prompt the user to enter their title of the media.
       a. Use an input function to get the user input.
       b. Stoer this information inside the struct of the title array.
    3. Prompt users to enter their website
       a. Uses an input function to get the user input.
       b. Stoer this information inside the struct of the website array.
    4. Prompt users to enter text
       a. Uses an input function to get the user input.
       b. Stoer this information inside the struct of the text array.
    5. Prompt users to enter likes
       a. Uses an input function to get the user input.
       b. Stoer this information inside the struct of the likes array.
    6. Prompt users to enter dislikes
       a. Uses an input function to get the user input.
       b. Stoer this information inside the struct of the dislikes array.
    7. Error check
       a. Use the cin dot width and ignore
       b. If the input type is not right, reenter.
       c. Echo back their inputs.
- Display
  - Inside Display function

1. Display the struct array of media.
    a. Using a for loop starting from 0 until the size of media.
        i. Print to terminal every index of i of array inside the struct media.
        ii. Make it a good format.
2. Once done displaying, go back to main for the menu.

- Save Function
  - Inside the Save function
    1. Using the ofstream for a file named social.txt.
    2. Open this file.
    3. Using a while conditional until the file is open.
        a. Have good format and make the file readable for later reading.
        b. Using a for loop from 0 until the size struct.
            i. Using a cout, print which data type and separate with (‘|’).
            ii. print which struct array on all one line,
            iii. Space out data type and separate them with (‘|’).
        c. Close the file once every struct has been printed into an external file.
    4. Close the file.
    5. Go back to the main function for the menu.
- LOAD Function
  - Inside LOAD function
        i. Using the ifstream for a file named social.txt.
        ii. Open this file.
        iii. Read in the first element of the struct array
        iv. Using a while conditional until the file is open.
    1. Have good format and make the file readable.
    2. Using a for loop from 0 until the size struct.
        a. Using a cin, read until (‘|’).
        b. Store which struct on all one line,
        c. Space out data type and separate them with (‘|’).
    3. Loop is finished once everything has been read in.
    4. Close the file.
    5. Go back to the main function for the menu.

- ENDING
  - Inside main function
    i. Start with a do while loop.
    ii. This do-while loop will execute everything in main at once.
    iii. Users will get a prompt with the options 1-4 and whether they want to quit or not.
    iv. Users will get a prompt with the option whether they want to quit or not.
    v. Prompt “Enter Q to quit, else the program will rerun!!”.
    vi. Until the user wants to quit the program will keep rerunning.