

CET - 350
Technical Computing using Java
Group Program #3
File Copy GUI

Using an IDE, write a java GUI application that will navigate the directory structure. Use a frame with a gridbag layout manager, a list to display and select the directory structure, labels to provide headings and messages, buttons to select actions, and text fields to enter information. When the program begins, the current directory will be used unless a valid directory is specified in the command line.

A list will be used to represent the directory. The current path will be displayed as the title on the menu bar. The directory will contain the ".." which represents the parent directory, unless the current directory is the root. Following the "..", the contents of the directory will be displayed. File names will be displayed as the name and extension. Child directories will be displayed as the name. Only when a child directory contains another directory, a "+" will be added to the end of the child directory name when it is displayed. Whenever the ".." is selected with the mouse, the directory listing will be updated with the contents of the parent directory. Whenever a child directory is selected with the mouse, the directory listing will be updated with the contents of the child directory. Whenever a file name is selected with the mouse, the source file name label will be updated with the file name.

After the directory, list, a label containing the word "Source:" followed by a label for a source file name will be displayed in the window. Initially the source file name label will be blank. Whenever a file name is selected from the directory, the file name will appear in the source file name label. After the first file name is selected, the Target button will become active. Further directory movements and source file names can be selected until the Target button is selected. Each time a file name is selected, the source file name label will be updated.

The next line displayed in the window will contain a button with the word "Target". Following the target button will be a Target path label which is initially blank. Each time the Target button is selected, the target path label will be updated with the current path.

The third line following the directory list will contain a label with the words "File Name:" followed by a text field for the target file name. Initially the target file name text field will be blank. Once in the target mode, any file name selected with the mouse will be displayed in the target file name text field. The user can also type a target file name directly into the target file name text field. Further directory movements and target file names can be selected until OK button is selected or the Enter key is pressed while the target file name text field is active. Each time the Target button is selected, the target path label will be updated with the current path. Each time a file name is selected, the target file name text field will be updated.

The fourth line will be a message label. The message label is initially blank. Whenever a message needs to be displayed, the message will be displayed here in the message label. The message will remain until another action is performed at which time the message label will be cleared. Possible message include but are not limited to: "Source file not specified.", "Target file not specified.", "Target directory not specified.", "Output file ... exists. It will be overwritten.", "An IO Error occurred, terminating.", "Error Opening File ", and "File Copied".

Whenever the program has a valid input file name and a target file name and either the OK button is selected or the Enter key is pressed while the target file name text field is active the program will copy the contents of the input file to the target file using integers. Use the FileReader/BufferedReader and a PrintWriter to handle the files. The program will overwrite an existing file and will also allow the target to be the source. There is no file checking in this program. Upon completion of the file copy, the program resets back to the initial conditions and the process can be repeated, except the current directory remains the current directory.

Do not use any breaks or exits. Only turn in a program that will compile without errors. A program that has compile errors will be returned un-checked. Late points will continue to accumulate until a program is turned in that compiles without errors.

