

## Criterion B: Design

### Graphical Visualization of the solution

#### Main Menu

The Main Menu window, titled "File Renamer", contains the following elements:

- Task that will perform:** A large text box for recording the rule to apply.
- Buttons:** "open folder", "open file", "refresh review", "clear the list", "Import Naming Settings", "Export naming settings", "Replace x with y", "Read music files' information", "Delete letters", "Insert text", and "Rename Files".
- File Lists:** Two side-by-side lists labeled "Original name list of the files" and "Preview of the new name list". Below the original list is a "Drop file or folder here" instruction and a "Queue <File>: fileInstances" label.

#### After user clicked "Replace x with y" button

The "Replace x with y" dialog window contains the following elements:

- Find text:** A text box labeled "TextBox (string)".
- Replace with:** A text box labeled "TextBox (string)".
- OK:** A button at the bottom center.

#### After user clicked "Delete letters" button

The "Delete letters" dialog window contains the following elements:

- From (digit):** A text box labeled "TextBox (int)".
- To (digit):** A text box labeled "TextBox (int)".
- Index Count From Right:** A checkbox.
- OK:** A button at the bottom center.

After user clicked “Read music files’ information”

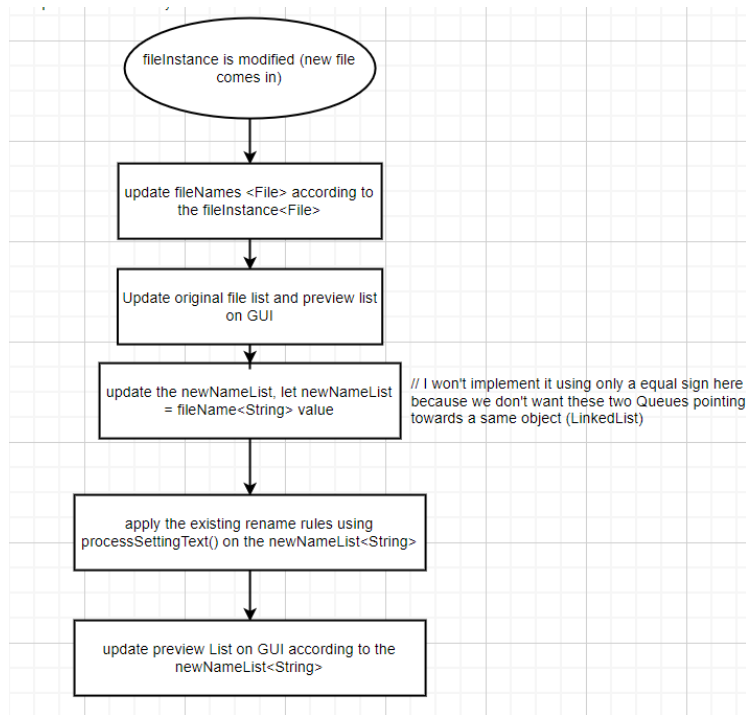
The dialog box titled "Read music files' information" contains two input fields: "Type of Tag" with a "SelectBox" control and "Insert at" with a "TextBox (int)" control. An "OK" button is positioned at the bottom center.

After user clicked “Insert text”

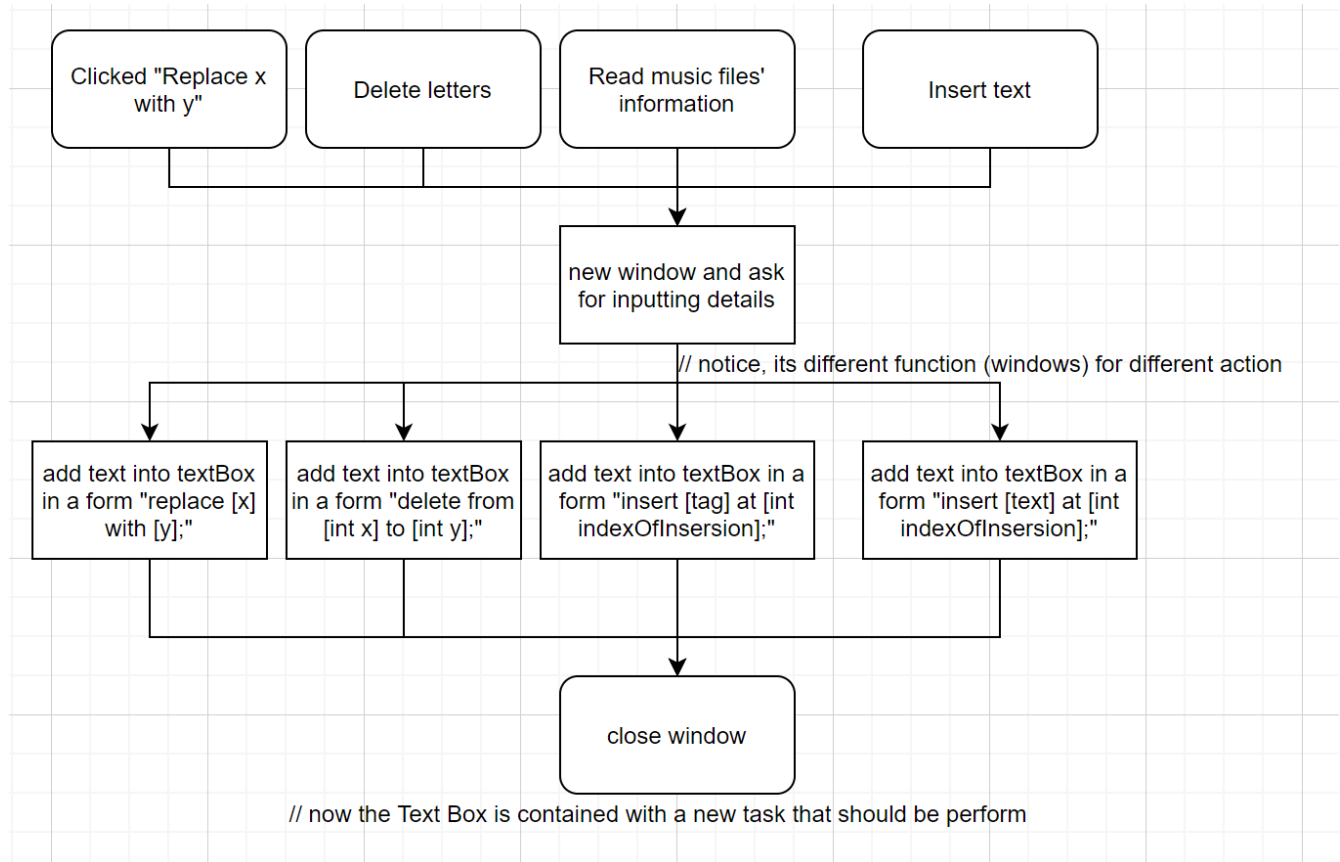
The dialog box titled "Insert Text" contains two input fields: "Text" with a "TextBox (String)" control and "Insert at" with a "TextBox (int)" control. An "OK" button is positioned at the bottom center.

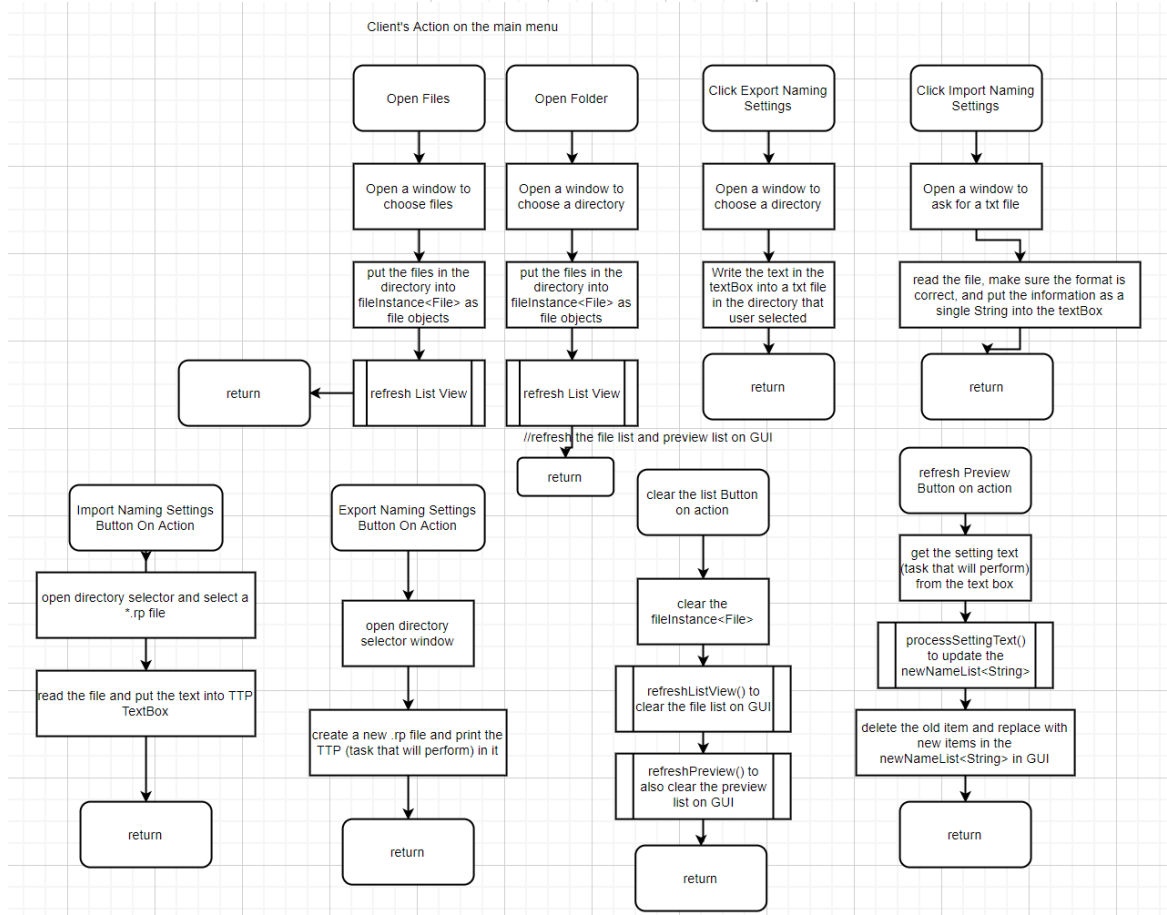
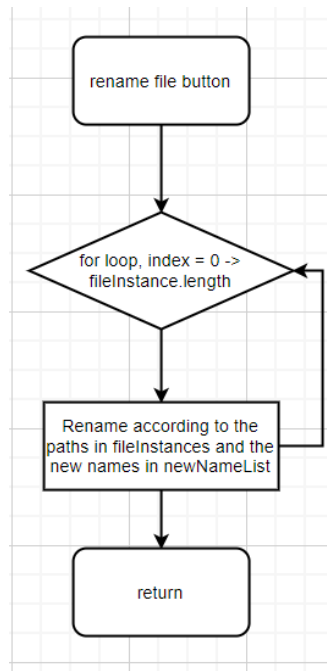
## Flowcharts

Flowchart of actions from adding a file to an update on original name list and preview list on GUI interface.

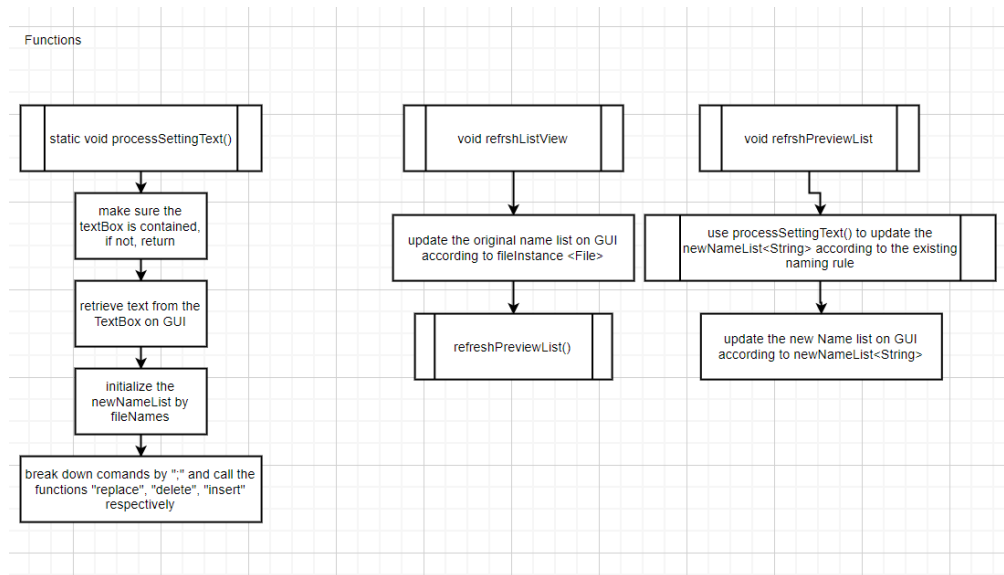


## User's action on GUI



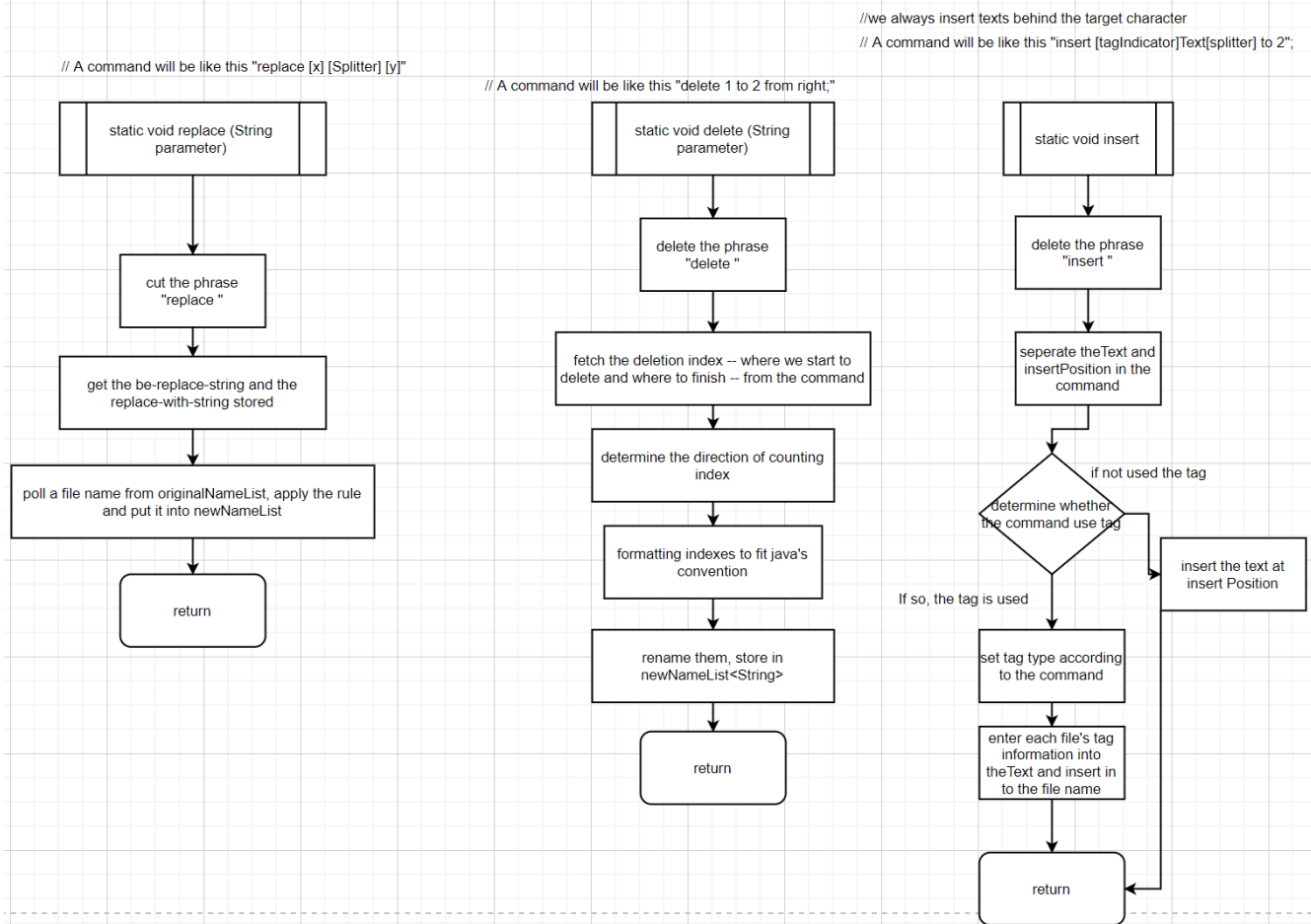


Some functions



## Renaming Functionality

# Rename Functionality



### **Schedule for developing the product.**

As I'm using the MVC model, the program will be divided into three sections, GUI interface, Controller classes, and functions, which are three major components of the program. I think 1 + 2 + 2 weeks will be enough to complete all program.

#### **Section 1 - GUI Interface (2 weeks)**

- Implement interfaces with no workable functions.
- Test the GUI

#### **Section 2 – Controller Classes 2 weeks)**

- build controller classes that link the GUI together.
- implement most of the functions after user clicked the button, which includes adding tasks into the text box without implementing how to process the tasks, opening the windows.
- Functions that can update the list and choice box, and method to call the File Choosers to import files and folders.

#### **Section 3 - Functions (2 weeks)**

- Implements IO functions that can load and rename the files.
- Process setting text function, which refers to every function that are needed to operate from pressing buttons and entering commands to rename the files.
- Implements the import and export rename setting functions that the users can load and export the rename routine.
- Test every functions and debug.

### **Test Plan**

<b>Action Test</b>	<b>Testing Method &amp; Result</b>
<b>The program needs to start correctly</b>	Open the program. There should be a window that includes 1 textbox, 2 list, 11 buttons in a correct order.
<b>All buttons and information box after clicking buttons need to work correctly</b>	After clicking "replace", "delete", "read music info", or "insert text", the windows that help users to enter information should appear. After clicking "import Naming settings" or "export naming settings", there should be a window to select a directory to save or open

	a file. After clicking “clear the list” or “refresh preview” buttons, the file list and preview list should perform expected action.
<b>Rename functions and “tasks that will perform” textbox work correctly</b>	After clicking buttons like “replace”, “delete”, “insert”, or “read music file’s information”, observe whether the tasks were added correspondingly and correctly into “task that will perform” textbox.
<b>All basic functions work correctly</b>	After finishing action test above, press the “refresh preview” button and observe whether the preview list display correct names.
<b>IO work correctly</b>	Click “open folders” and “open files” to see whether the files are added correctly. After that, use the rename function of the program. After seeing a preview of the new name list, click “rename files” and check whether those files are renamed correctly.
<b>Multiple order execution work correctly</b>	Enter multiple rename orders into “Task that will perform” textbox and press the “refresh preview button” to see whether the program can run multiple order correctly.

Word count: 512

