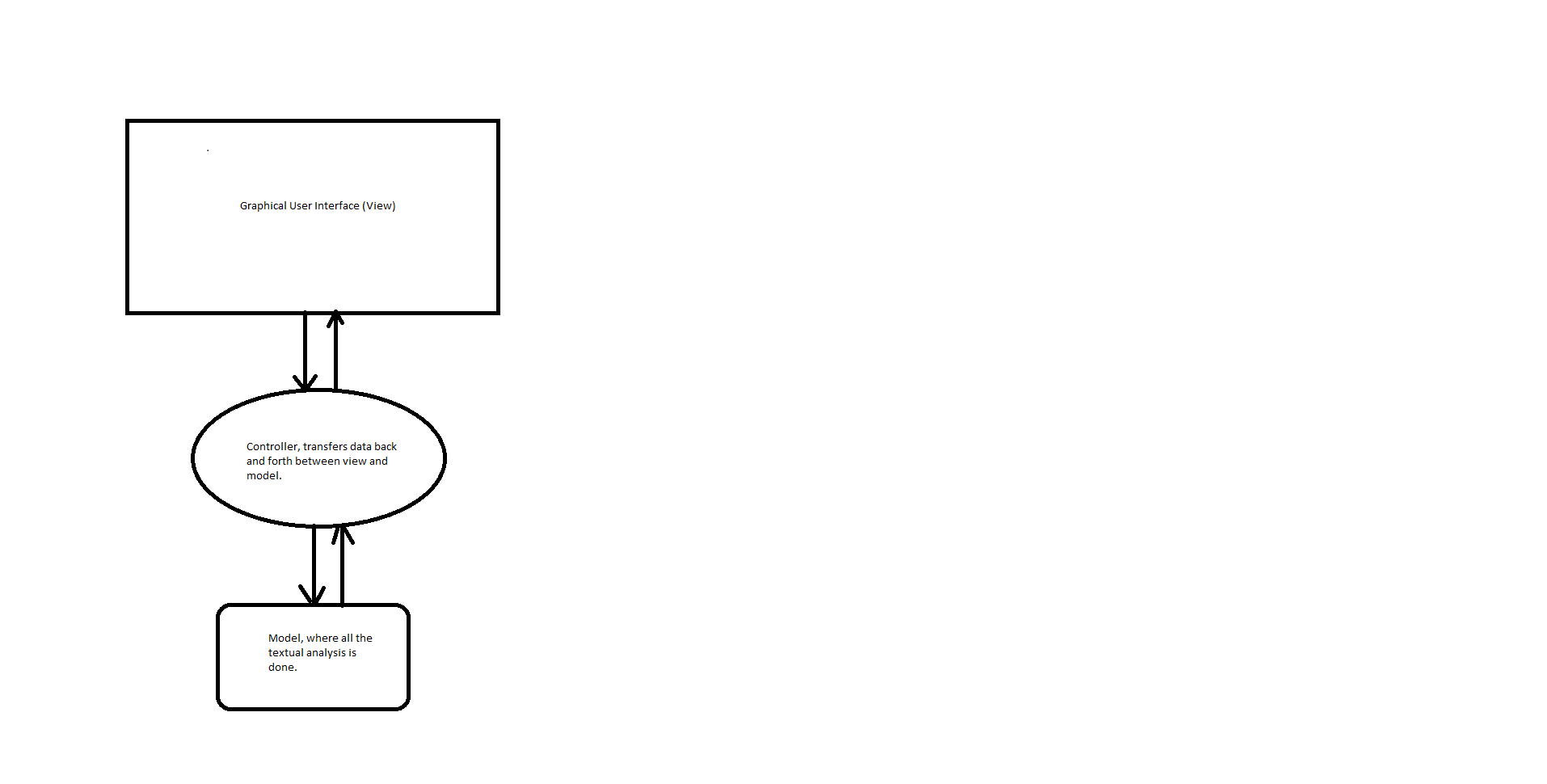
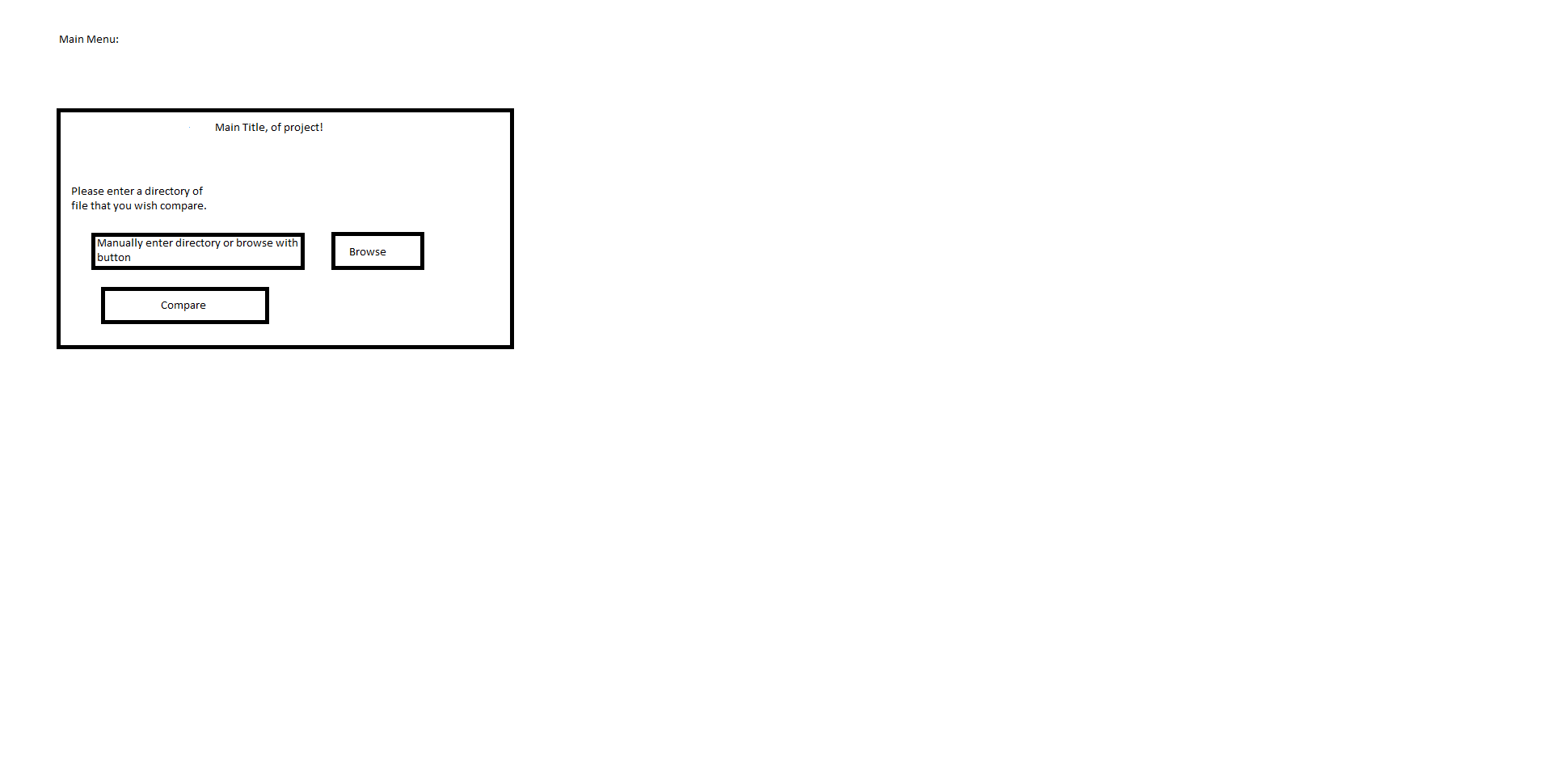
Design document:

1. Architecture:
   1. For this project we will be using M-V-C or model, view, controller, architecture.
      1. **Controller:** This class is like a over all master, it will talk to data in the model, gain data from the model, and update the view.
      2. **Model:** The data, this is where all the textual analysis will be performed, when ever a user interreacts with content in the view, the controller will ask the model for updated information
      3. **View:** This is the graphical user interface, this is where the user will interact with the program.

Model:

Classes:

1. **View Classes:** 
   1. **System:** This python file, will be used to craft and develop the entire graphical system. It will prompt the user with certain interactions. It will use action listeners to gain data from the user.
      1. **Global Variables:**
         1. **Controller RefToControlle**r: allow for transferring data back and forth from model to the view.
      2. **Methods:**
         1. **BuildMainMenu():** Builds the main menu for users to interact with, look at the GUI section on how this will roughly look like.
         2. **browseFileActList():** Action listener for browseFile button, will pop up the windows explorer being able to find file. Once file is found it will transfer directory into the INPUT field next to the browse button.
         3. **CompareFileActListener():** Once this button is pressed, will check the input field. If it is empty, it will throw an error message at user. Else it will move to new panel window. Activate controller to update new directory added.
         4. **HideMainMenu():** Hides the main menu, called once this window is done being used. Can be called later in the program, if a button is pressed to open it up again.
         5. **BuildStylometricPanel():** Builds actual interface, that users can interact, Look at GUI section to see how this roughly looks like.



1. **GUI for View:**

1. **Model classes:** 
   1. **Calculations:** A python file which contains all calculations required for stylometric analysis.
      1. **Global Variables:**
         1. **ListOfStrings Authors**: for calculations, what authors do we want to look through.
      2. **Methods:**
         1. **MendenhallsCharCurveComp()**: First stylometric test, able to count through words of different length found in authors writing. Display data in a characteristic curve.
         2. **Kilgariff Chi**-**SquaredCal():** Second stylometric test, chi-squard