CMPE 211 Project Report

The idea of the code is to find the Nearest Neighbors of a given candidate with the previously given data of one thousand people. The program of ours first opens up a FileChooser to locate the data file to work on. If the file is found in the location program opens the JFrame with 5 different TextFields and a button.

Program first creates an ArrayList and puts every single line in the data to the ArrayList. And then it creats a FileInputStream to read the data. If the file is found and successfully read the program then keeps going to convert the ArrayList to a multidimensional string array. After that it converts the string array to a double array so it can manipulate on the numbers.

Also there is an action listener in the code and it listens if the button is pressed or not. And if it is pressed it read the given data by the user and puts them into an array which is called the newData. Now the newData is used to calculate the distances between the newly given data and the previously given candidate data and puts them into an array called distanceArray.

The problem is that when we need to find the closest ones we have to sort the array which is the distanceArray but when we do sort it we will lose the indexes. There would be no way to find if any given index of the distanceArray is 1 or 0. That’s why the program then creates another array with the data of the candidates with 1 and 0 which is called the binaryArray.

When the program sorts the distanceArray the binaryArray is also manipulated. So, we when we want to check if the 3rd index is 1 we just need to check the binaryArray[3]. The program then get the K value from the textField and counts the number of 1s in it. If there are more ones than zeros the JOptionPane is used to inform the user if the person is hired or not.