Activity 4

Ian M. McConihay

College of Science, Engineering and Technology, Grand Canyon University

CST-150: C# Programming I

Mark Smithers

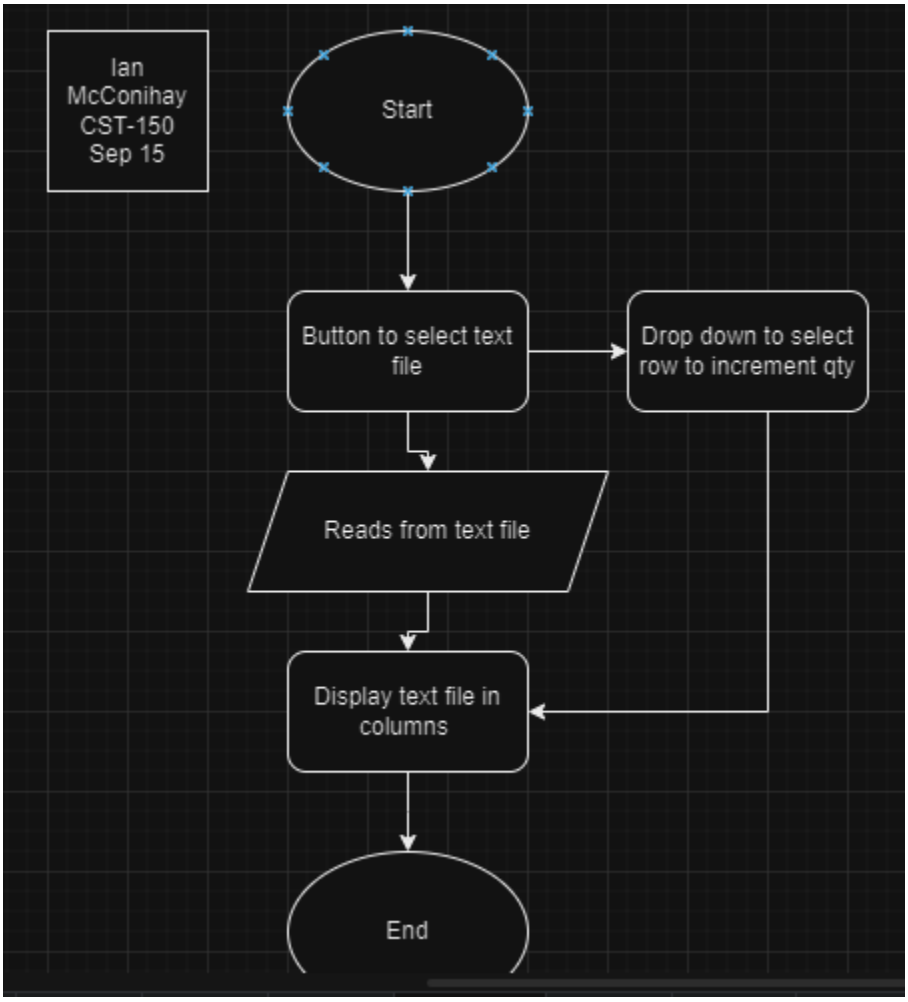
September 15, 2024

Video Link:

https://www.loom.com/share/b54b60f3453c44f7b2c5ac2a2a2e9306?sid=df6bc5fb-ade3-4902-b51a-eaed2580ab8d

Github: https://github.com/Ian-McConihay/CST-150

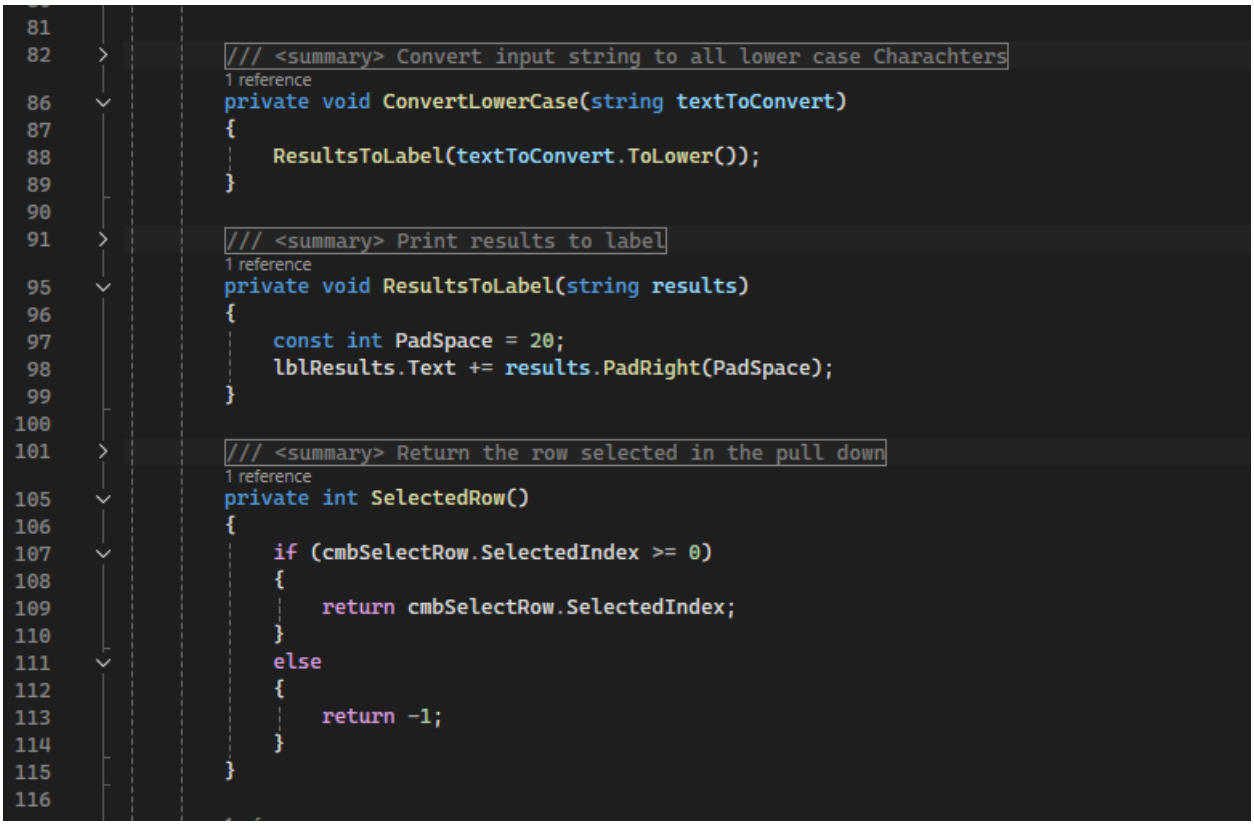
Flowchart



The flow chart for the Activity 4 Part 1 application. This application allows the user to click a button to read a txt file. Once the button is clicked the user is able to select a file and an event fires off to display the text information. A dropdown will allow the user to increment an ids quantity.

Application Screenshots

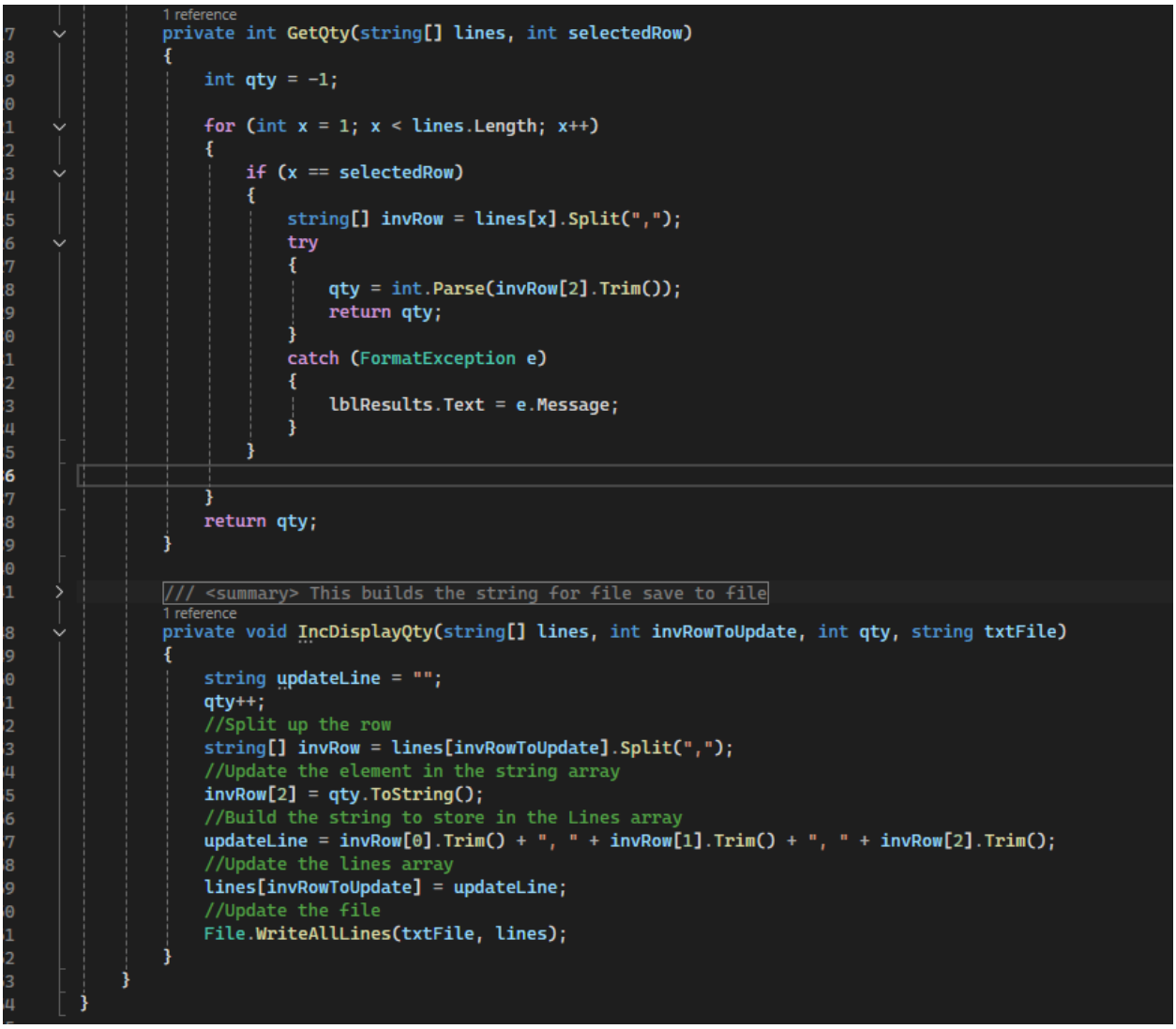
Figure 1: Code



```
81
82      /// <summary> Convert input string to all lower case Charachters
        1 reference
86      private void ConvertLowerCase(string textToConvert)
87      {
88          ResultsToLabel(textToConvert.ToLower());
89      }
90
91      /// <summary> Print results to label
        1 reference
95      private void ResultsToLabel(string results)
96      {
97          const int PadSpace = 20;
98          lblResults.Text += results.PadRight(PadSpace);
99      }
100
101     /// <summary> Return the row selected in the pull down
        1 reference
105     private int SelectedRow()
106     {
107         if (cmbSelectRow.SelectedIndex >= 0)
108         {
109             return cmbSelectRow.SelectedIndex;
110         }
111         else
112         {
113             return -1;
114         }
115     }
116
```

ConvertToLowerCase takes in the input and converts the string to lower case. ResultsToLabel takes in a string and persists it on the lblResults. SelectedRow is the logic behind selecting a row in a combo box.

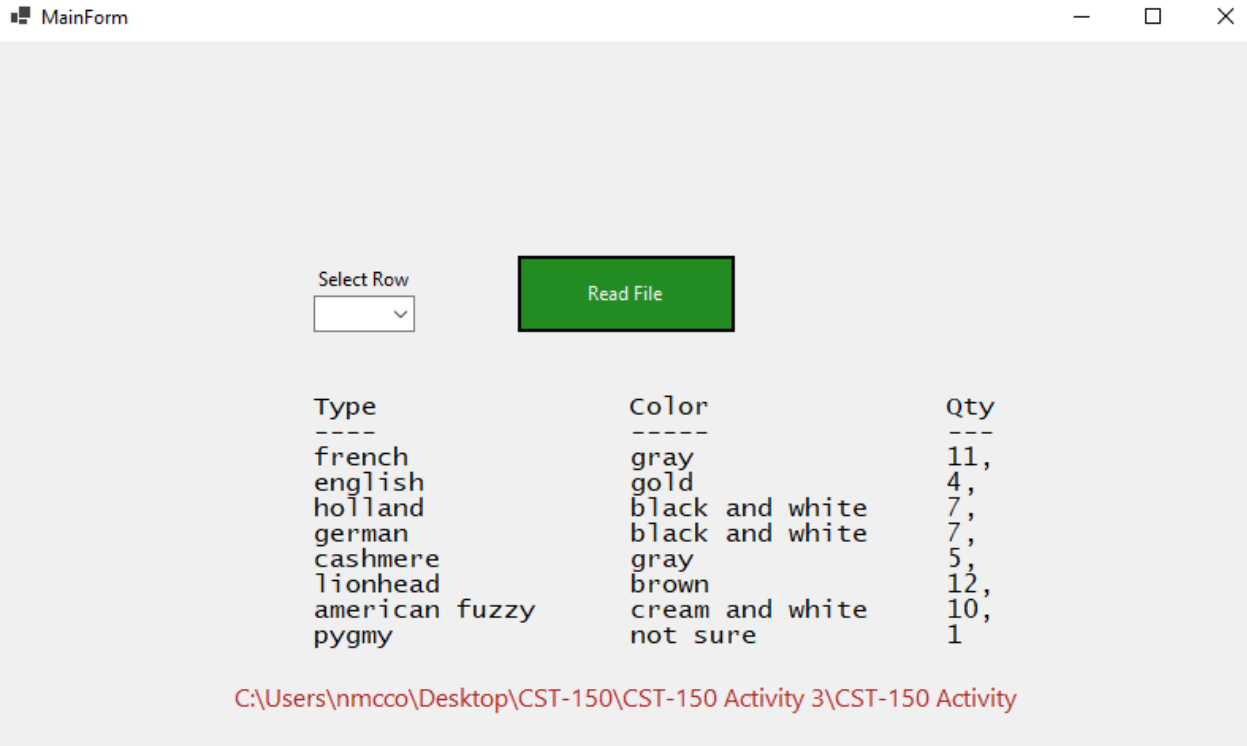
Figure 2: Code



```
        1 reference
        private int GetQty(string[] lines, int selectedRow)
        {
            int qty = -1;

            for (int x = 1; x < lines.Length; x++)
            {
                if (x == selectedRow)
                {
                    string[] invRow = lines[x].Split(",");
                    try
                    {
                        qty = int.Parse(invRow[2].Trim());
                        return qty;
                    }
                    catch (FormatException e)
                    {
                        lblResults.Text = e.Message;
                    }
                }

            }
            return qty;
        }

        /// <summary> This builds the string for file save to file
        1 reference
        private void IncDisplayQty(string[] lines, int invRowToUpdate, int qty, string txtFile)
        {
            string updateLine = "";
            qty++;
            //Split up the row
            string[] invRow = lines[invRowToUpdate].Split(",");
            //Update the element in the string array
            invRow[2] = qty.ToString();
            //Build the string to store in the Lines array
            updateLine = invRow[0].Trim() + ", " + invRow[1].Trim() + ", " + invRow[2].Trim();
            //Update the lines array
            lines[invRowToUpdate] = updateLine;
            //Update the file
            File.WriteAllLines(txtFile, lines);
        }
    }
}
```

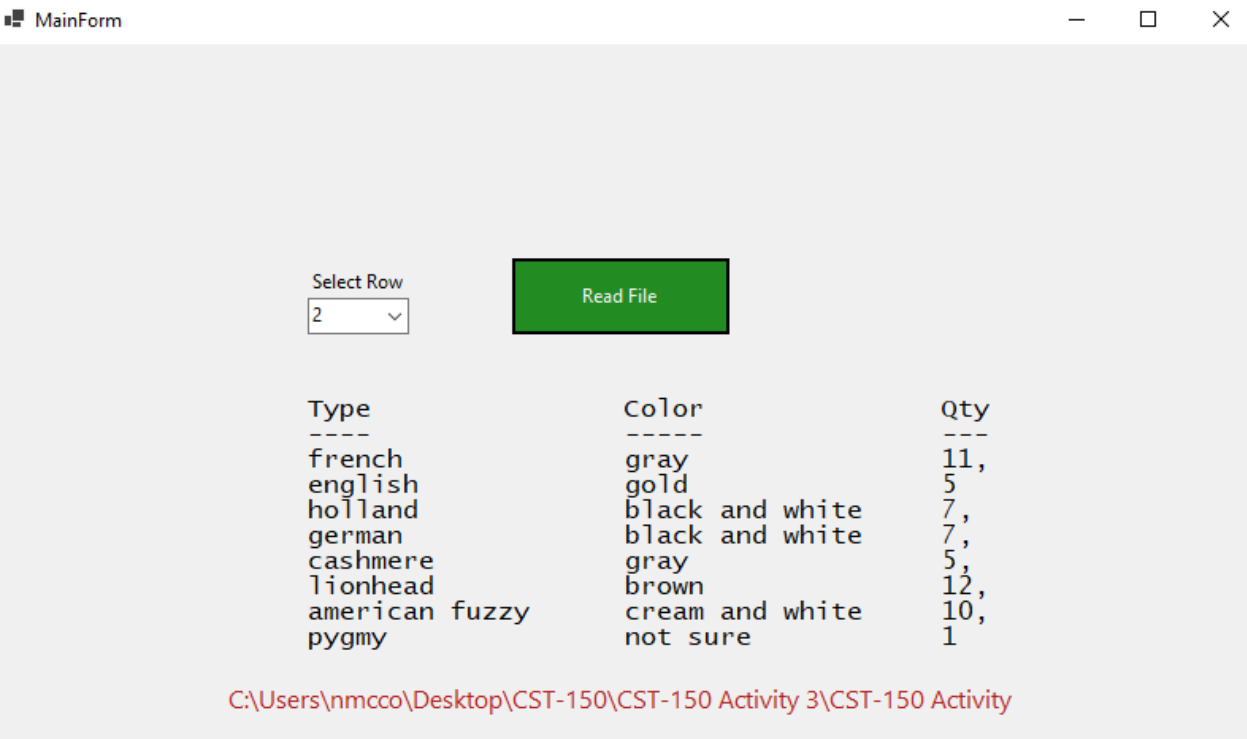
In this screenshot we have the GetQty grab the qty from the row selected in the combo box. This also uses a try catch to cover format exceptions. Next we have the IncDisplayQty method to save the new qty update to the text file.

Figure 3: Application



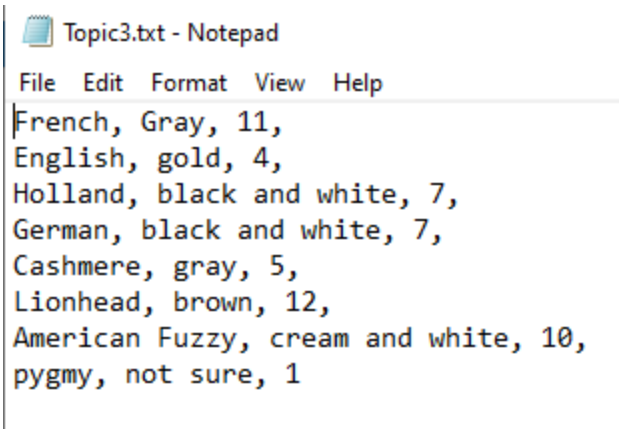
Here I have the application running. We have only the green Read File button ready for the user to select the text file. We can also see the name for the application is changed to MainForm. All of the columns are lower case. Also, you can see the select row.

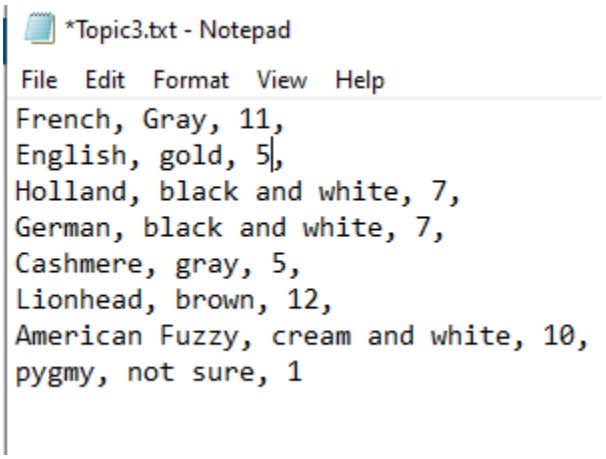
Figure 4: Application



The selected row was 2. The 2 line quantity was updated by the readfile button. Now incremented to show 5 instead of 4.

Figure 5: Text files





Here is a screen shot of the before and after the text files. You can see everything is upper case. Also, the line now shows 5 instead of 4.

1. What was challenging?

Having the increment work in an odd way was confusing.

2. What did you learn?
   I learned about writing text files.

3. How would you improve on the project?

I would use a sperate button to increment the line and also have something to reload the textile after clicking.

4. How can you use what you learned on the job?

I can write new lines or update lines in a text file.