

Software Design and Development

Module : Software Engineering|B9IS114

Module Leader : Harnik Dhoot

Assessment Type : Group

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Merlin Mary Joy|10369315

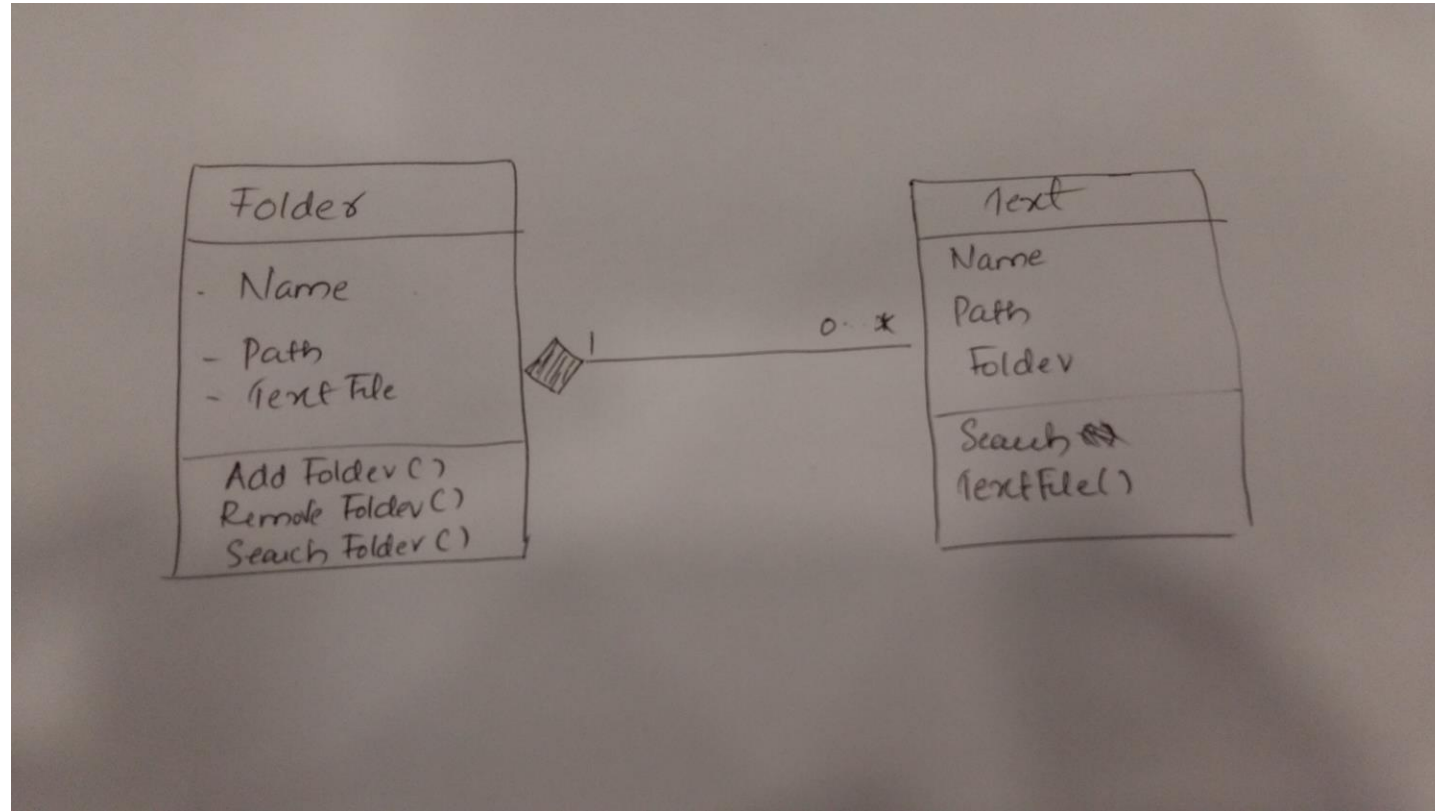
Bifurcation of work on individual basis

- Tapesesh Patel (Question no 1, 2, 11, 12, 13, PPT, report, and UML)
- Ahmad Awayhan (Question no 3, 4, 5, 9, 10, 11)
- Merlin Mery Joy (Question no 7, 8, 12, 11)

Submission of work schedule

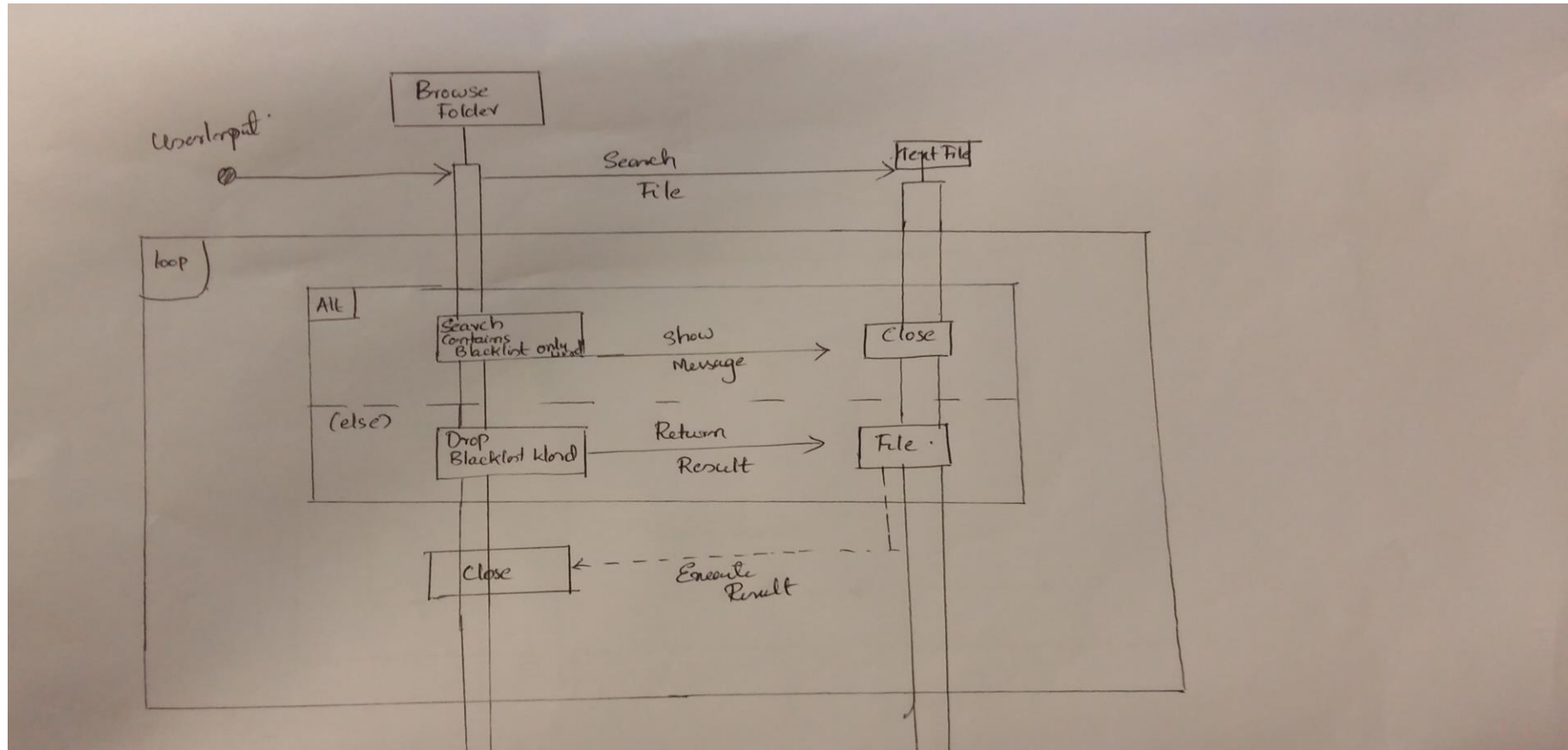
- Start Time : October
 - 10, 2017
 - 17, 2017
 - 24, 2017
 - 31, 2017
- Start Time : November
 - 7, 2017
 - 14, 2017
 - 21, 2017
 - 28, 2017
- End Time : December 10, 2017
- Time and Place : Every Tuesday 3 hours from 11 am to 2pm room number 3 and 4 library

UML Class Diagram



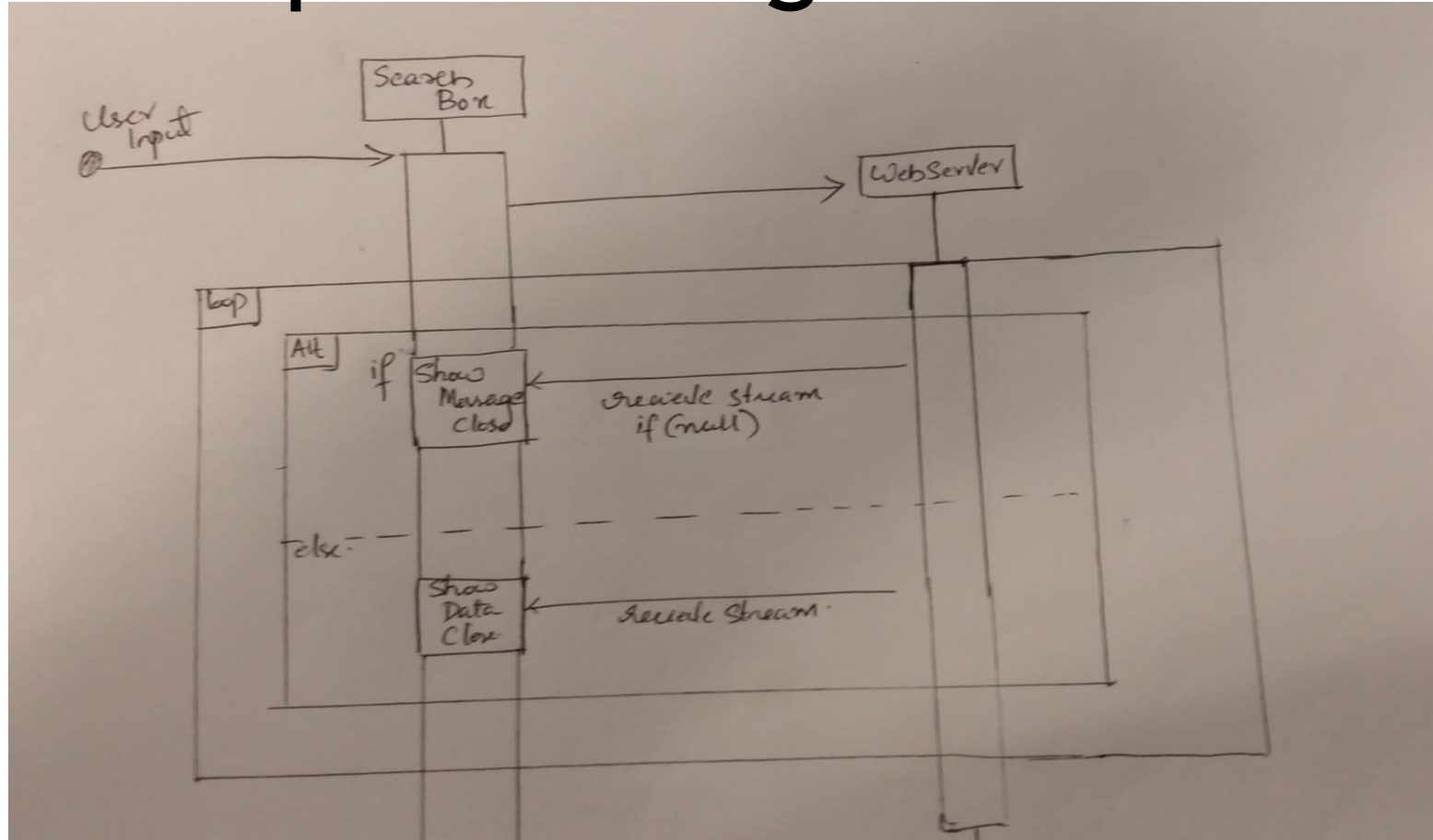
- Class diagram

UML Sequence Diagram



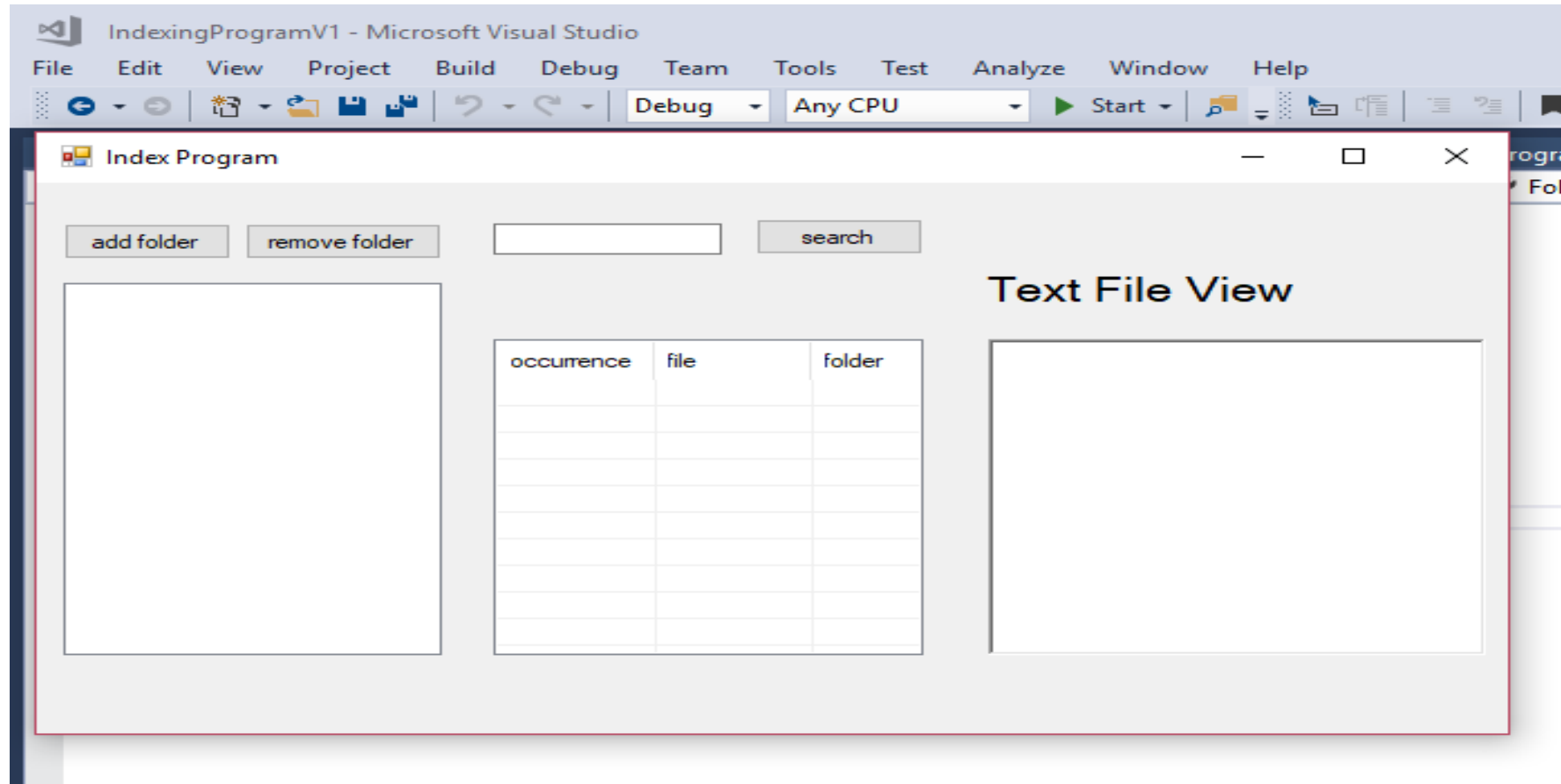
- Indexing sequence diagram

UML Sequence Diagram



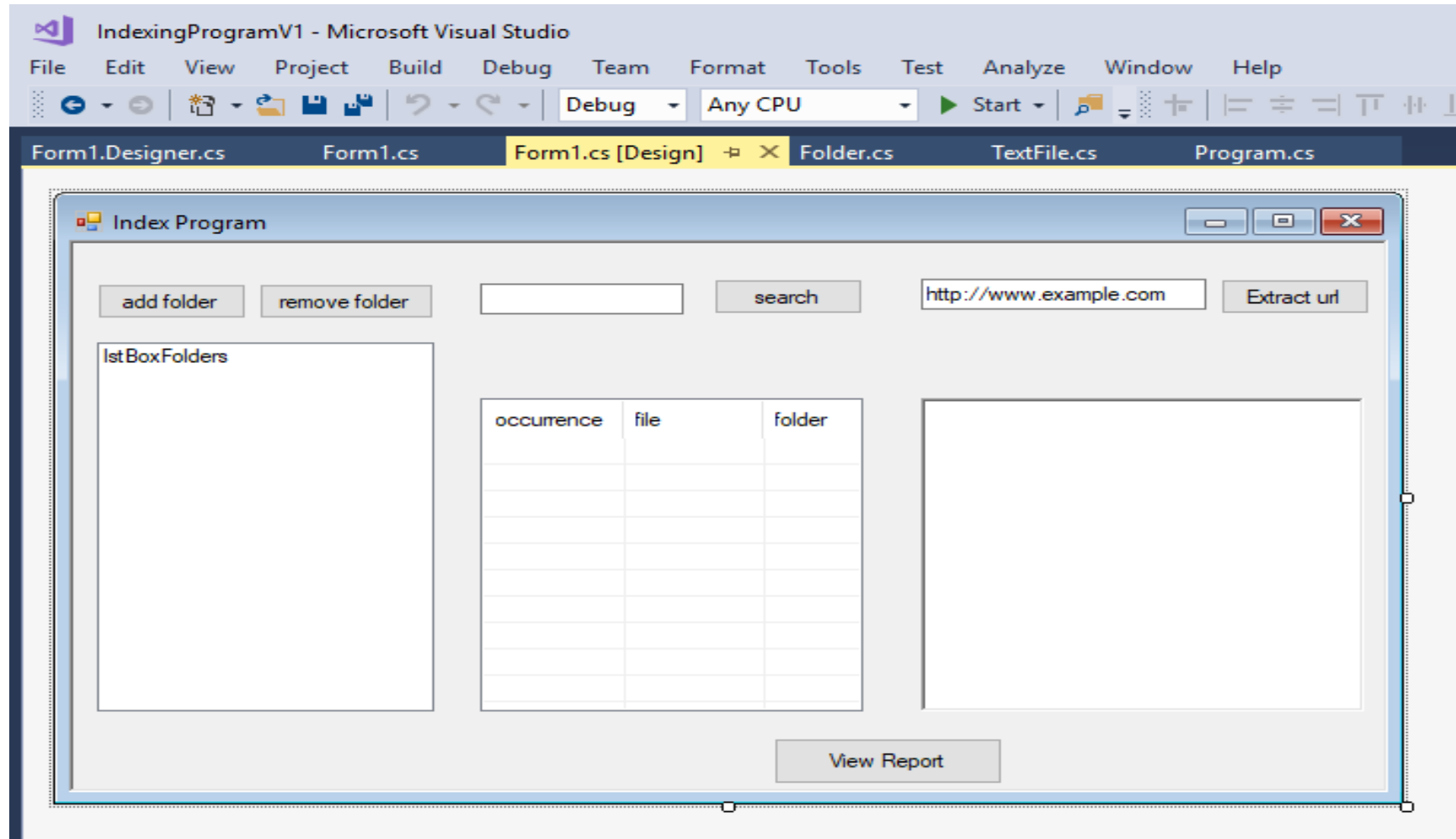
- HTML Sequence diagram

Implementation of text file code



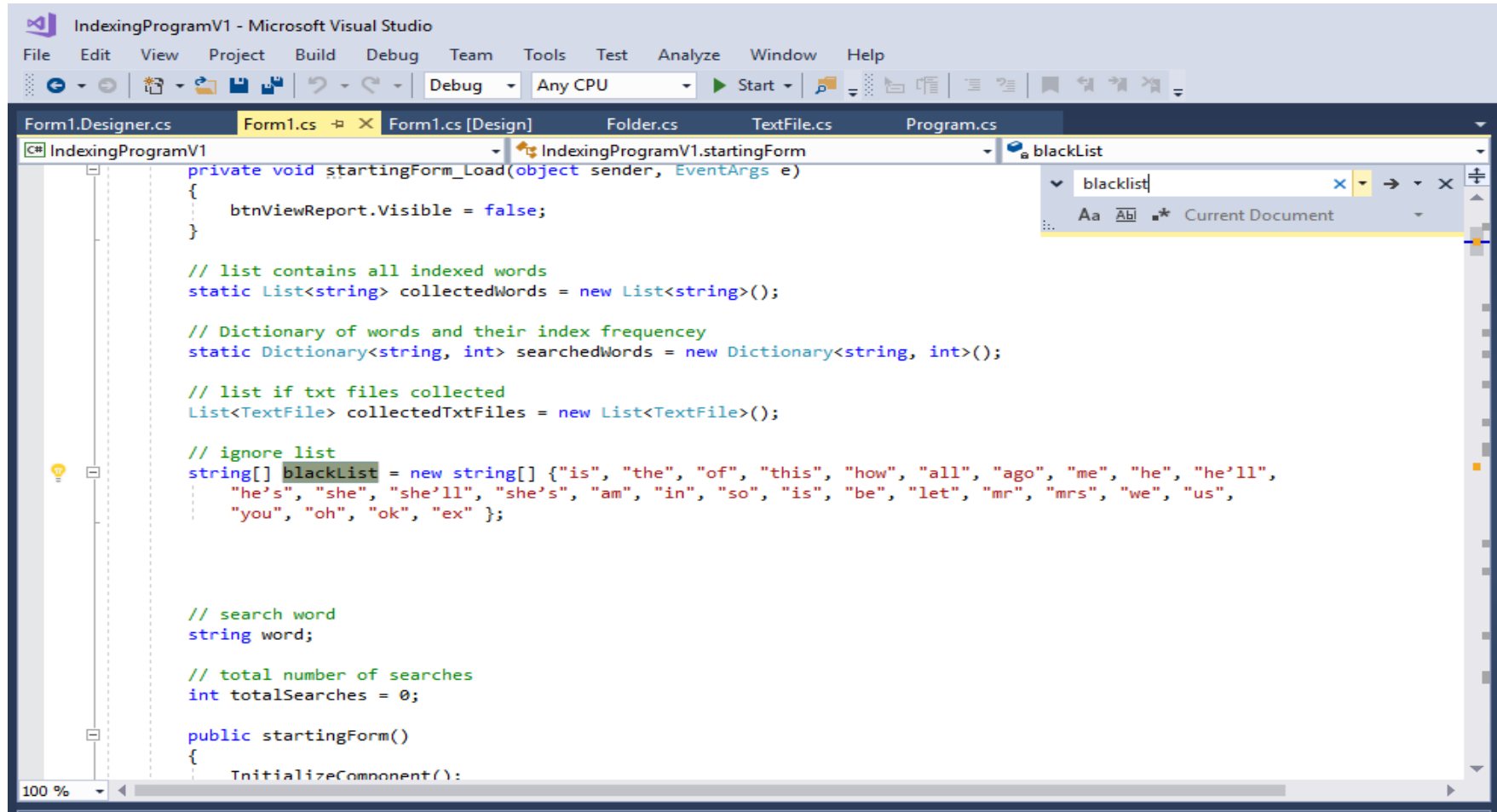
- Outline of Design and structure

Implementation of HTML code



- Outline of design and structure

Index code (Blacklist)



```
IndexingProgramV1 - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Debug Any CPU Start
Form1.Designer.cs Form1.cs Form1.cs [Design] Folder.cs TextFile.cs Program.cs
IndexingProgramV1 IndexingProgramV1.startingForm blacklist
blacklist
Aa Abi * Current Document

private void startingForm_Load(object sender, EventArgs e)
{
    btnViewReport.Visible = false;
}

// list contains all indexed words
static List<string> collectedWords = new List<string>();

// Dictionary of words and their index frequency
static Dictionary<string, int> searchedWords = new Dictionary<string, int>();

// list if txt files collected
List<TextFile> collectedTxtFiles = new List<TextFile>();

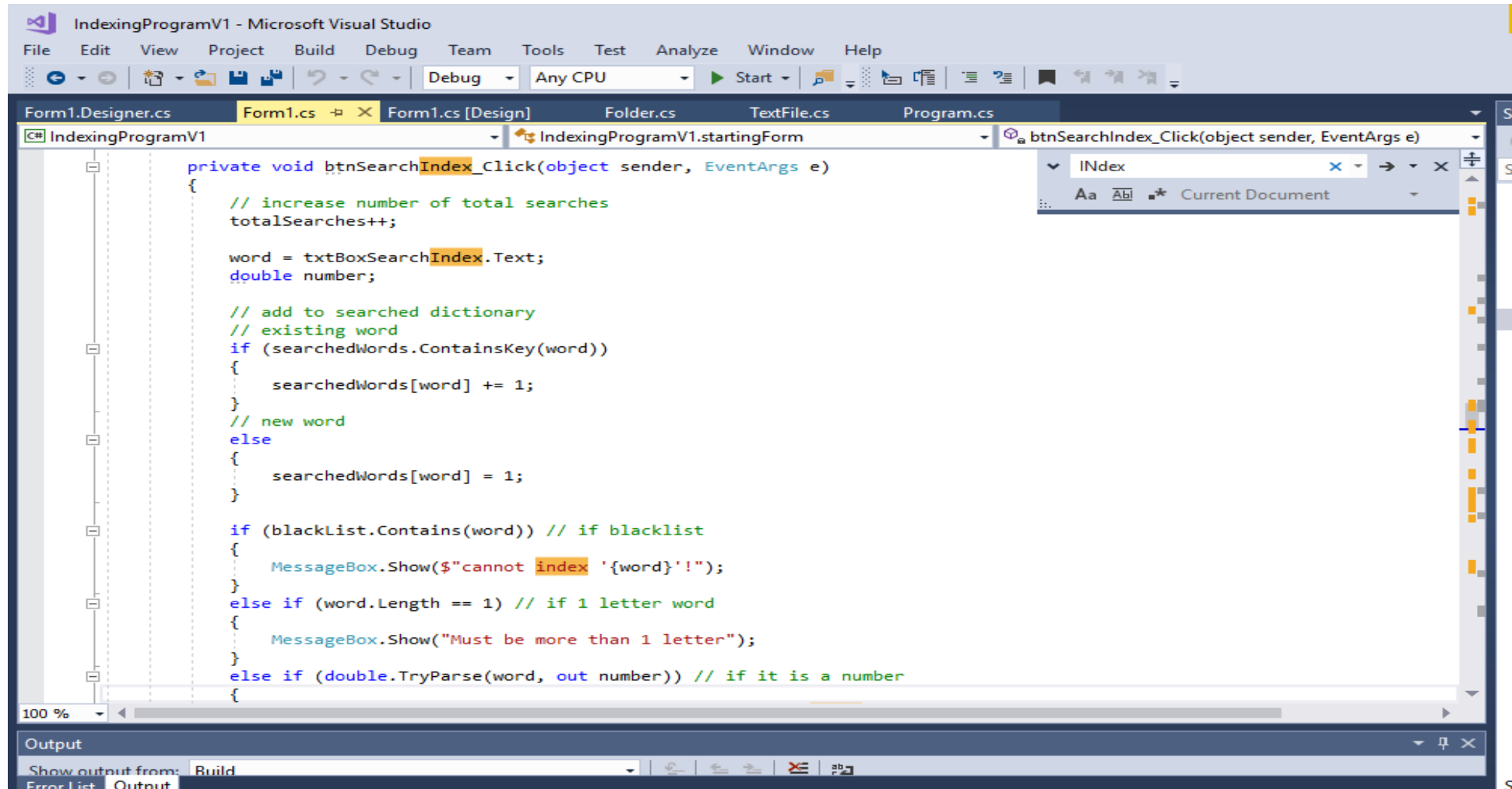
// ignore list
string[] blacklist = new string[] { "is", "the", "of", "this", "how", "all", "ago", "me", "he", "he'll",
    "he's", "she", "she'll", "she's", "am", "in", "so", "is", "be", "let", "mr", "mrs", "we", "us",
    "you", "oh", "ok", "ex" };

// search word
string word;

// total number of searches
int totalSearches = 0;

public startingForm()
{
    InitializeComponent();
}
```

Indexing code (if typed 1 word)



The screenshot displays the Microsoft Visual Studio IDE with the project 'IndexingProgramV1' open. The 'Form1.cs' file is selected, and the 'btnSearchIndex_Click' method is visible. The code implements a search indexing logic that checks for word length, blacklist status, and dictionary existence.

```
private void btnSearchIndex_Click(object sender, EventArgs e)
{
    // increase number of total searches
    totalSearches++;

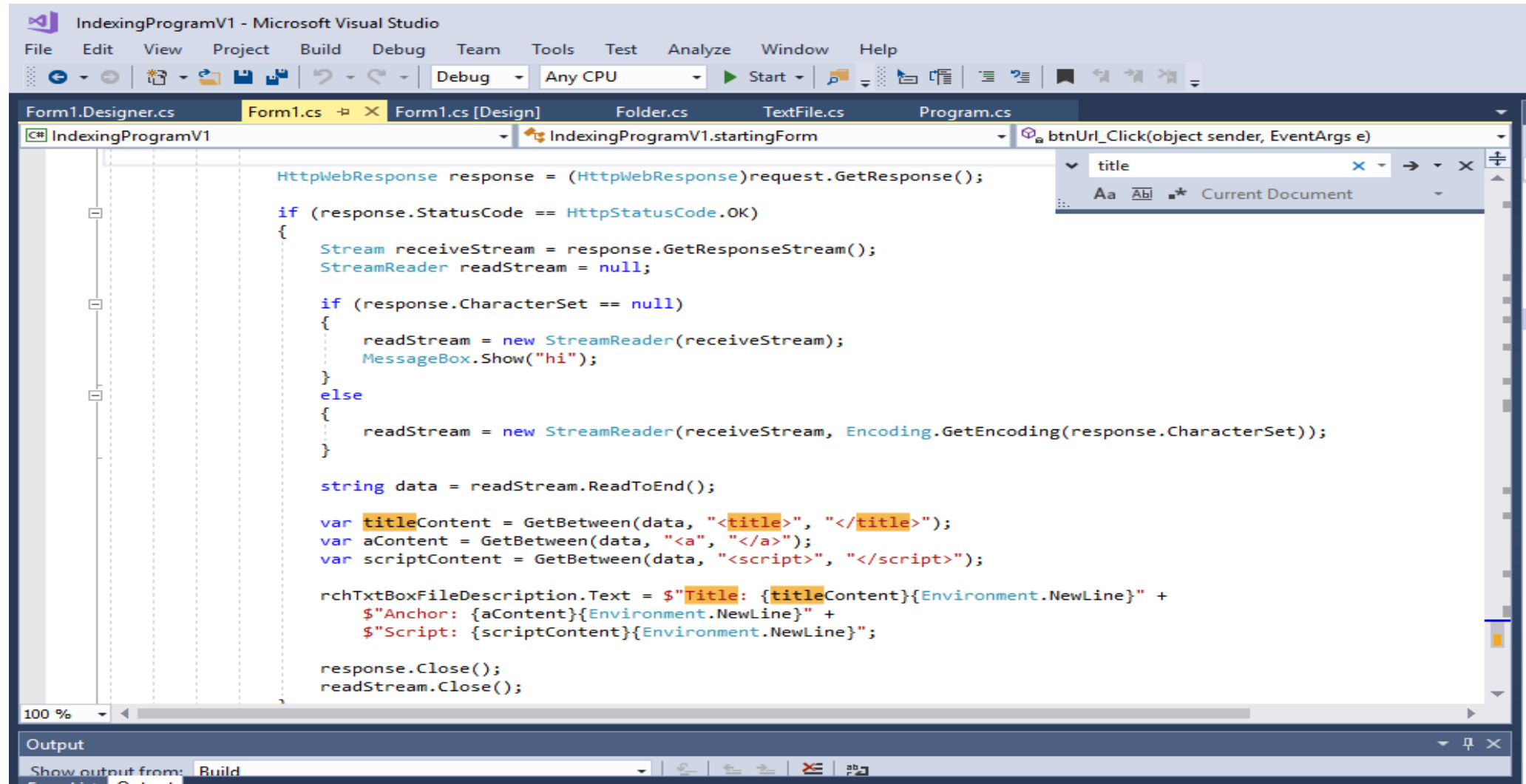
    word = txtBoxSearchIndex.Text;
    double number;

    // add to searched dictionary
    // existing word
    if (searchedWords.ContainsKey(word))
    {
        searchedWords[word] += 1;
    }
    // new word
    else
    {
        searchedWords[word] = 1;
    }

    if (blackList.Contains(word)) // if blacklist
    {
        MessageBox.Show($"cannot index '{word}'!");
    }
    else if (word.Length == 1) // if 1 letter word
    {
        MessageBox.Show("Must be more than 1 letter");
    }
    else if (double.TryParse(word, out number)) // if it is a number
    {
    }
}
```

The 'Output' window at the bottom shows the 'Build' output, indicating the code is ready for execution.

HMTL Code



```
IndexingProgramV1 - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Debug Any CPU Start
Form1.Designer.cs Form1.cs Form1.cs [Design] Folder.cs TextFile.cs Program.cs
IndexingProgramV1 IndexingProgramV1.startingForm btnUrl_Click(object sender, EventArgs e)
title
Aa Abi * Current Document

HttpWebResponse response = (HttpWebResponse)request.GetResponse();

if (response.StatusCode == HttpStatusCode.OK)
{
    Stream receiveStream = response.GetResponseStream();
    StreamReader readStream = null;

    if (response.CharacterSet == null)
    {
        readStream = new StreamReader(receiveStream);
        MessageBox.Show("hi");
    }
    else
    {
        readStream = new StreamReader(receiveStream, Encoding.GetEncoding(response.CharacterSet));
    }

    string data = readStream.ReadToEnd();

    var titleContent = GetBetween(data, "<title>", "</title>");
    var aContent = GetBetween(data, "<a>", "</a>");
    var scriptContent = GetBetween(data, "<script>", "</script>");

    richTextBoxFileDescription.Text = $"Title: {titleContent}{Environment.NewLine}" +
        $"Anchor: {aContent}{Environment.NewLine}" +
        $"Script: {scriptContent}{Environment.NewLine}";

    response.Close();
    readStream.Close();
}
```

100 %

Output

Show output from: Build

Limitations

- As per requirement of the assignment our group was unable to meet the need of assignment i.e. the implementation of binary file mentioned in Question 6.
- Also we are unable to implement the File system manager, but we tried to do until certain extent and the code for this is mentioned in the file with comment.