**Design Document for Sentence Builder App (Week 5 - Assignment #3)**

**Overview**

This program is a simple sentence builder with an array of buttons that when clicked, add words into a textbox at the button of the application. The user can click buttons and build a simple sentence with the words provided. The textbox below automatically will fill up with the words, and if the user wants to reset there is a clear button provided that will empty the textbox. There is also an exit button to close the application.

In the future, I would like to add more options for words and maybe a drop-down menu for conjunctions

**Components and Processing**

Each of the buttons process a function of adding input to an empty container. Once the first button is pressed, all others will build off its input. In short, if a user keeps pressing the same buttons over and over there will be a long string of the same word in the output box.

For example, the code below will add on the word “is” and leave a space behind the word for the next button input. This is simple concatenation on an empty text box.

sentenceOutput.Text += "is ";

If the user was to press the same button 5 more times, the textbox would appear like this:

Your sentence is:

is is is is is

**Input and Output**

The input expected is the user clicks on a button

The expected output, via string concatenation of each word, is words appearing in the textbox below the buttons.

**Testing**

Testing the app’s upper limit for words seems to be very high. The app’s textbox, when too full for words the text box will not automatically scroll or re-size, so there is room for improvement there in the future when I know more about Visual C#