

Chapter 3: Data Representation

Binary ASCII to String Converter Project

Date: _____ Teacher: _____

General Instructions:	You and a partner will be working collaboratively on separate (but related) programming projects.
Partner #1 Task:	<p>Create a website, <code>string_to_ascii.html</code>, that allows a user to type in a standard string into a text area, and then press a button to convert this string to its binary ASCII (UTF-8) equivalent.</p> <p>For example, the string "Hello World!" would be converted to the following:</p> <pre>01001000 01100101 01101100 01101100 01101111 00100000 01010111 01101111 01110010 01101100 01100100 00100001</pre>
Partner #2 Task:	<p>Create a website, <code>ascii_to_string.html</code>, that allows a user to type in a string encoded in binary ASCII (UTF-8), and then press a button to convert this to a standard string.</p> <p>For example, the binary ASCII string "01000011 01010011 01010000" would be converted to the standard string "CSP."</p>
Project Requirements:	<p>In addition to successfully performing the conversion described above, you must also add the following features to your website:</p> <ul style="list-style-type: none"> • A title • CSS styling that incorporates elements that you have not used on a previous project such as custom colors or fonts • A header • An image (small enough to be unobtrusive) • Descriptive code comments, including a comment before every function
Partner Responsibilities:	<ul style="list-style-type: none"> • You must discuss, collaborate, and communicate with your partner • You and your partner must check your work by using your two websites to convert some strings to binary ASCII then back again • Each partner must turn in his/her own project (you may not write code for your partner, and he/she may not write code for you) • Have fun!
Optional Enhancements:	<p>After you turn in your individual projects, work together to create a new webpage, <code>two_way_converter.html</code>, that works as follows:</p> <ul style="list-style-type: none"> • Two text areas and two buttons • One button converts a string from the left text area and converts it to binary ASCII in the right text area • The other button converts binary ASCII in the right text area to a string the left text area.