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COP3813

Intro to Internet Computing

For the third project I took my JavaScript knowledge and made three different unit converters. I was more familiar with jQuery but a quick brush up on JavaScript made this project very simple.

In this assignment I converted three different sets of data that the user entered. The user has a choice between temperature, length, and data (bit, byte, etc.). A user can select one of these three from a dropdown box featured on the page. I modeled the look and feel of this from Googles own unit converter. Only the general idea was used, no code was taken from the site.

The most enjoyment I had creating this site was being able to use my knowledge of JavaScript to create interesting content by using a dropdown box to select the unit type to convert and then being able to convert from unit A to unit B. No button was necessary to convert the values. Only when the focus was lost would the calculations happen.

The most challenging aspect of this site has to be implementing the conversion of units. Temperature was pretty easy as it was just from Celsius to Fahrenheit. However converting from different lengths or different data posed a challenge that would be difficult to solve. I decided to think smart and not hard to solve this problem. I knew that there would be a many to many case of converting units which would be a hassle to do if there are many different types to convert to. A workaround for this was convert all values to a single base value. For example, 1 foot = 12 inches, and 1 yard = 36 inches, 1 inch = 1 inch. The values would be stored in the select options and would be used in JavaScript calculations.

The formula I used to convert values is:

$$userVal = inputVal$$

$$X = selectVal_1, \quad Y = selectVal_2$$

$$Answer = (userVal * X)/Y$$

This is a universal function I created to calculate the conversion of any value. Inch was my base unit everything was converted to for length. Byte was used in data conversion.

I used brackets for designing my site. I really like the live preview option it has. Also its minimal interface is just right for me. User extensions were also a nice feature. I'm utilizing a github extension for brackets to have source control. I used Firefox for the majority of my testing as I could see how my webpage can be responsive on different screens.

https://www.google.com/search?q=unit+converter&ie=utf-8&oe=utf-8