# Creative Coding 2 “Charts Ca”

* This.variable : This declares a variable in my code that I am able to call back to and use for functions, for example, in my code I declare “this.numTicks = 10” which allows me to use the variable “this.numTicks” in a loop to calculate how many ticks I want to appear in my chart. This method allows me to use my declared variable rather than hard coded numbers for consistency in my code.
* map(): This function allows me to re-map a number from one range to another, which is useful for calculations made in my code and will allow me to keep all my charts within a certain range. For example in my code the map function is used to find the map the max value of my data to the total in my data, allowing me to correctly increment my ticks. Using map instead of hard coding will also allow me to properly scale my charts.
* push(), pop() : these are transformation functions, which were very useful in my code, the push() function saves the current drawing state while the pop() function restores it. By putting code between the push() and pop() functions I was able to make my bars, text and axis titles independent to my other code, so that they were not affected by me changing font size or other variables outside of the function.
* For (loops) : in this instance I use for loops to create my bars and ticks, rather than drawing hard coded bars, I use a for loop to get the information from my data, draw my bar and then draw it again several other times with different values to create varying bars, for loops were especially helpful for my stacked bar chart as using a loop within a loop allowed me to draw the stacked chart with the data taken from my sketch and used in the second for loop.
* Translate(): this function allows me to move objects in my canvas to another point relative to the original point, this was used in my code to move things like my bars into the correct position and also give my text a margin, translating within my push() and pop() allowed me to displace these objects without constantly translating from the original point.