

# Introduction

**Creative Coding 2**

**Bar Chart Project Report**

**Manu Jose**

**N00200555**

Creative Coding 2

Bar Charts Project

DL836 BSc in Creative Computing

My project is about fuel prices and how they affect the sales of new cars. There are five chart classes in the project, but I only used four of them with my data. These datasets contain info about the most sold new cars of 2021, the price versus the miles-per-gallon of those cars, the price per litre of different fuel types throughout the years and the number of new car sales by fuel type throughout the years.

# Creating A Class

Learning how to create a class was one of the most useful things I took away from this module. It allows us to easily create new objects with or without a set of parameters. The constructor method in a class initializes object properties. Classes also use methods that can be called within the class itself. They’re like functions but we don’t need to declare them as functions before we use them. We also declare properties as “this.property” because it is a property of this specific class.

# The Map Function

The map function tales a number and re-maps it from one range to another. It is a p5 function, so it requires the p5 library to be utilized. In this project it is used to map the data values so that they fit on the charts. To use it we would give the function a number, the original range the number is scaled to, and the new rand the number is scaled to.

# Translations

The translate function is another p5 function. It moves the start point from where objects are drawn to the points specified in the function. We need this in the chart classes because each set of data has to be translated back to the 0,0 of the chart before it is drawn.

# Begin Shape

Another function I found very useful is the beginShape function, which is used when making a line graph. It is used by first starting the drawing with beginShape(). Then we use vertex(x,y) to draw all the points in the shape. The vertex function can be used as many times as necessary. Finally, it is finished with endShape(), and depending on what parameters are put in, the shape can be closed or left as a single line.

# For Loops

For loops allow us to loop through a set of code a specified number of times. The number of loops can be hard coded, or it could be dependent on a variable. They require three statements. The first one declares a variable. The second one is the condition for whether to loop or not. If the second statement is true, the loop will run. The third statement defines how to increment the value of the variable declared in statement one.

# GitHub Repo