

1. Using the vehicle dataset, write a program that produces Figure 1.41 (First Edition) or Figure 1.47 (Second Edition) from the textbook. You can download the data here:

<http://cs.appstate.edu/~rmp/cs5720/cars04.csv>

Label the axes and provide a title. Use the color to represent vehicle type and size to represent weight (area proportional to weight). In addition to your code, provide a bash script that executes it with the path to the CSV file provided on the command line. Usage should be like this:

```
$ bash fig_1_47.sh /home/user/cars04.csv
```

The bash script runs your program using the provided file. For example, if you write a Python program the bash script might look like this:

```
#!/bin/bash
/opt/anaconda3/bin/python fig_1_47.py "$1"
```

If you decide to use R, it might look like this:

```
#!/bin/bash
/usr/bin/R -f fig_1_47.R "$1"
```

The program should produce a PNG called `fig_1_47.png`. If you use a compiled language like C/C++ or Java, provide a Makefile that compiles it first.

Zip your program and submit it to asulearn.

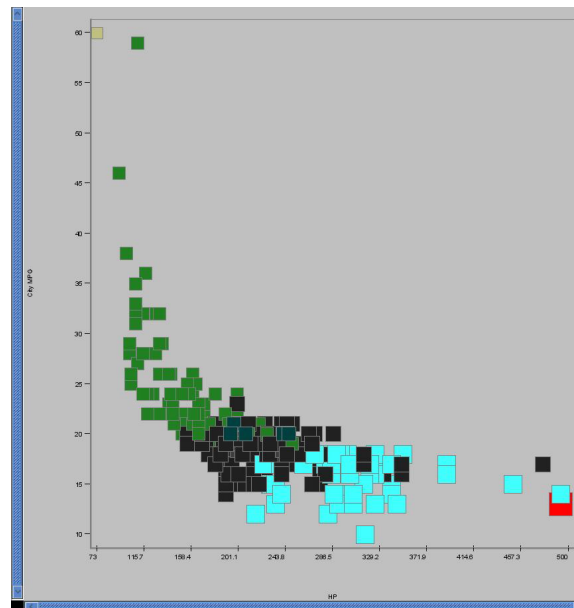


Figure 1.47