Super Cool Cars Report Of Horsepower by Displacement and Cylanders

Brian Erly, MD MPH

13 May, 2022

Intro

The purpose of this script is to show how you can make loops in R Markdown, both within the markdown document and in a main script.

```
## Rows: 32 Columns: 3
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## dbl (3): category_cyl, xval_disp, yval_hp
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

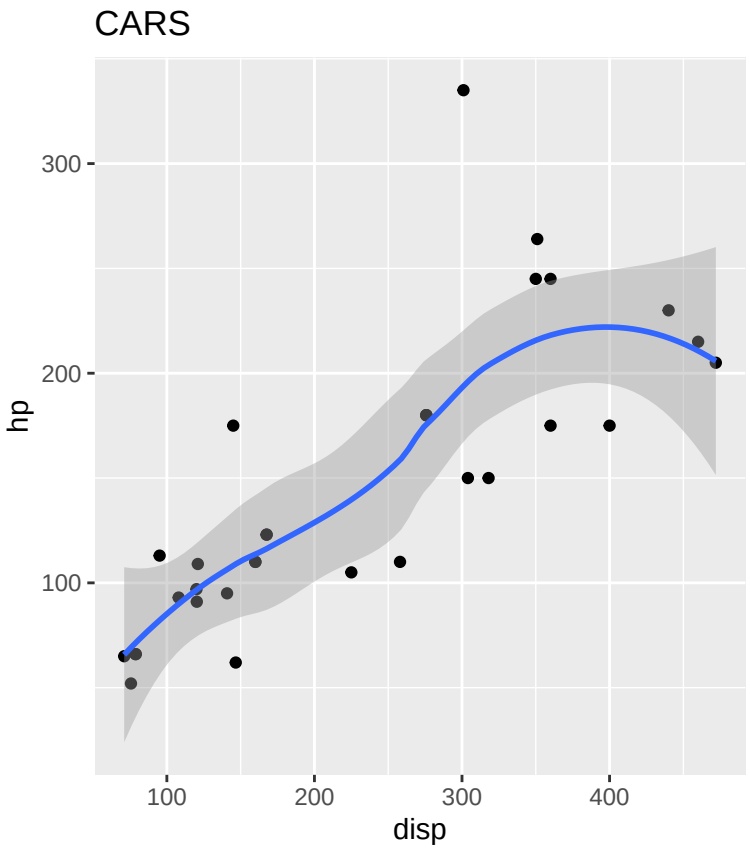
```
## # A tibble: 6 x 3
##   category_cyl xval_disp yval_hp
##          <dbl>     <dbl>   <dbl>
## 1            6       160     110
## 2            6       160     110
## 3            4       108      93
## 4            6       258     110
## 5            8       360     175
## 6            6       225     105
```

```
##   category_cyl     xval_disp        yval_hp
##  Min.   :4.000   Min.   : 71.1   Min.   : 52.0
##  1st Qu.:4.000   1st Qu.:120.8   1st Qu.: 96.5
##  Median :6.000   Median :196.3   Median :123.0
##  Mean   :6.188   Mean   :230.7   Mean   :146.7
##  3rd Qu.:8.000   3rd Qu.:326.0   3rd Qu.:180.0
##  Max.   :8.000   Max.   :472.0   Max.   :335.0
```

High Level Report

You can print a high level report of all your data, which is fine for a first order analysis or users who don't need to be restricted.

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

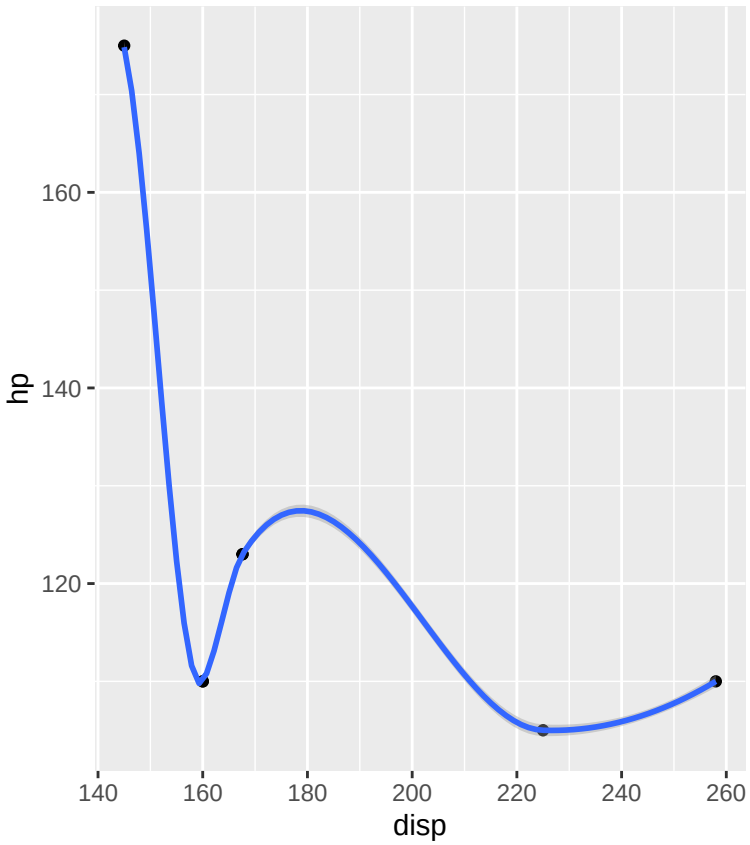


And that's neat, but we might want to create individual pages that are specific to an individual category. To do this, we use the package "gluedown".

"Gluedown" is a small set of thoughtful wrappers around the tidyverse package "glue" that will put them in markdown format for you. By using "gluedown" and the chunk setting "results = 'asis', instead of printing consol-ey code output the output will be nicely formatted markdown text.

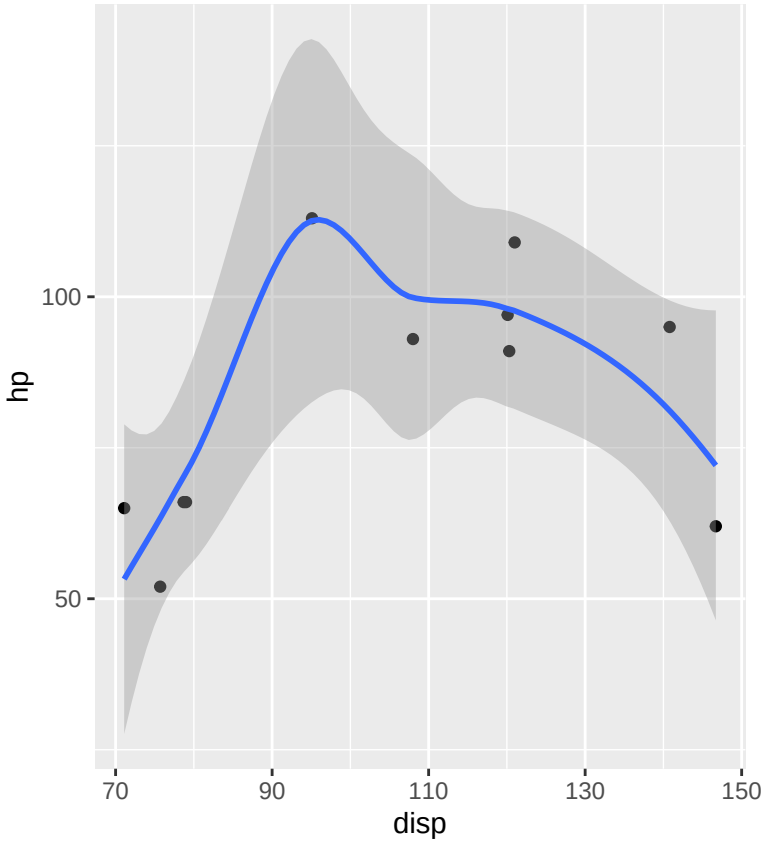
CARS: categorycyl = 6

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'

## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : pseudoinverse used

## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : neighborhood radius

## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : reciprocal conditio

## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : There are other nea

## Warning in predLoess(object$y, object$x, newx = if (is.null(newdata)) object$x else if (is.data.frame
## as.matrix(model.frame(delete.response(terms(object)), : pseudoinverse used at 144.44

## Warning in predLoess(object$y, object$x, newx = if (is.null(newdata)) object$x else if (is.data.frame
## as.matrix(model.frame(delete.response(terms(object)), : neighborhood radius 23.165

## Warning in predLoess(object$y, object$x, newx = if (is.null(newdata)) object$x else if (is.data.frame
## as.matrix(model.frame(delete.response(terms(object)), : reciprocal condition number 4.8226e-017

## Warning in predLoess(object$y, object$x, newx = if (is.null(newdata)) object$x else if (is.data.frame
## as.matrix(model.frame(delete.response(terms(object)), : There are other near singularities as well. 5
```



CARS: categorycyl = 4

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



CARS: categorycyl = 8

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```