In [3]:
```
library(dplyr)
library(tidyr)
library(ggplot2)
library(magrittr) # for %>% operator
#install.packages('corrplot')
library(corrplot)
```

```
corrplot 0.92 loaded
```

Correlation heat map for mtcars

In [5]:
```
data <- datasets::mtcars
res <- cor(data)
round(res, 2)
```

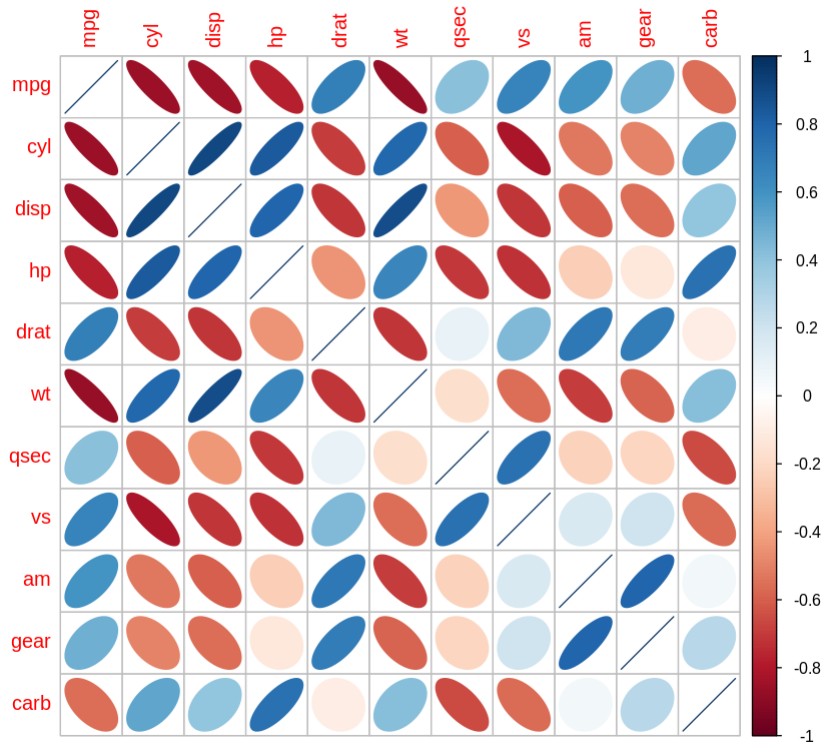
A matrix: 11 × 11 of type dbl

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
mpg	1.00	-0.85	-0.85	-0.78	0.68	-0.87	0.42	0.66	0.60	0.48	-0.55
cyl	-0.85	1.00	0.90	0.83	-0.70	0.78	-0.59	-0.81	-0.52	-0.49	0.53
disp	-0.85	0.90	1.00	0.79	-0.71	0.89	-0.43	-0.71	-0.59	-0.56	0.39
hp	-0.78	0.83	0.79	1.00	-0.45	0.66	-0.71	-0.72	-0.24	-0.13	0.75
drat	0.68	-0.70	-0.71	-0.45	1.00	-0.71	0.09	0.44	0.71	0.70	-0.09
wt	-0.87	0.78	0.89	0.66	-0.71	1.00	-0.17	-0.55	-0.69	-0.58	0.43
qsec	0.42	-0.59	-0.43	-0.71	0.09	-0.17	1.00	0.74	-0.23	-0.21	-0.66
vs	0.66	-0.81	-0.71	-0.72	0.44	-0.55	0.74	1.00	0.17	0.21	-0.57
am	0.60	-0.52	-0.59	-0.24	0.71	-0.69	-0.23	0.17	1.00	0.79	0.06
gear	0.48	-0.49	-0.56	-0.13	0.70	-0.58	-0.21	0.21	0.79	1.00	0.27
carb	-0.55	0.53	0.39	0.75	-0.09	0.43	-0.66	-0.57	0.06	0.27	1.00

In [ ]:
```
```

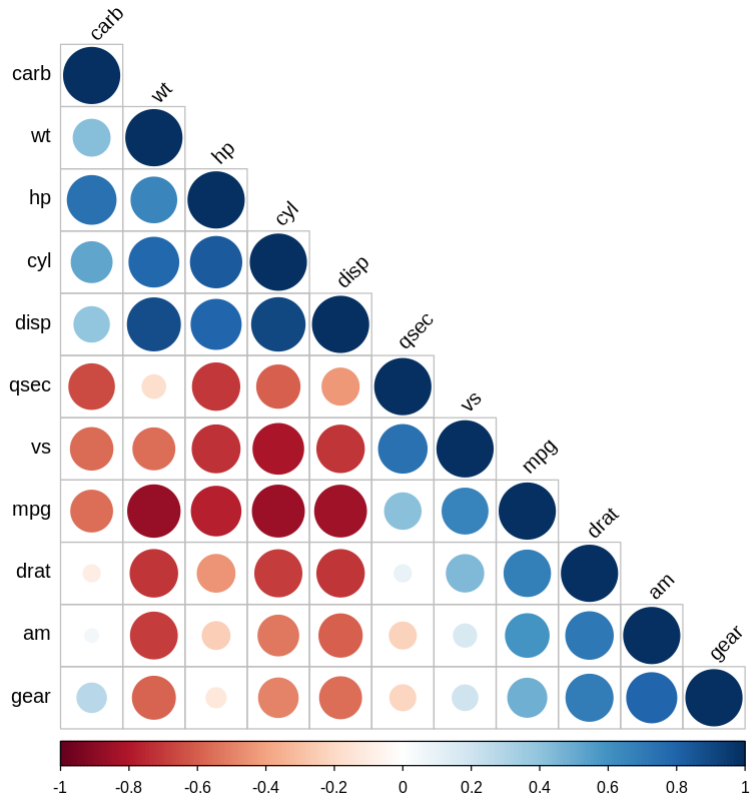
This is correlation heatmap based on correlation matrix. The size of ellipse tells the positive and negative correlations

In [6]:
```
corrplot(cor(data), method='ellipse')
```



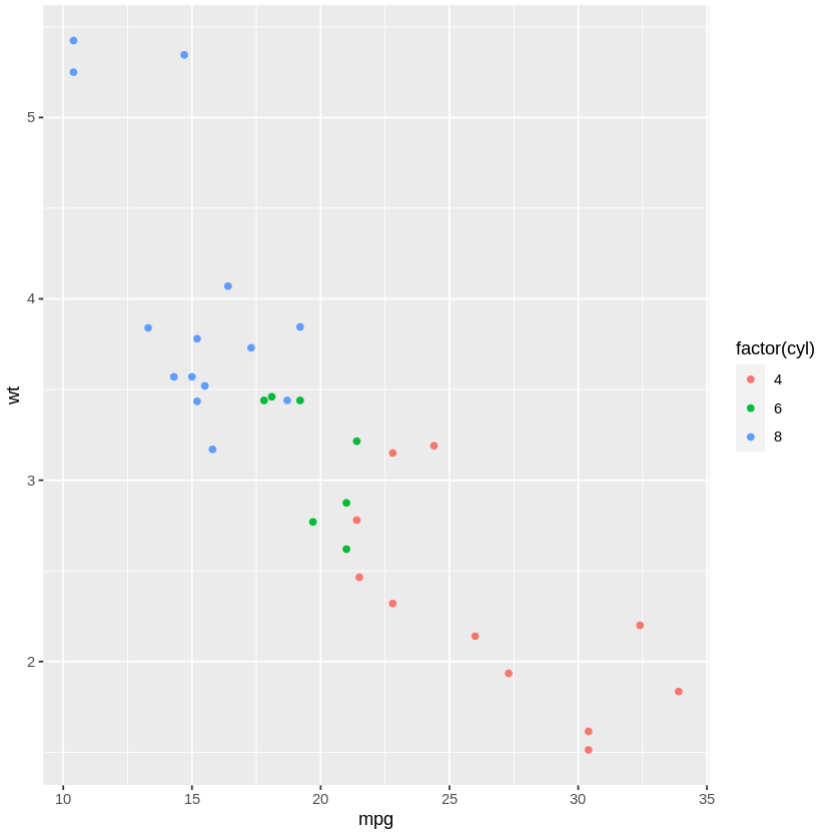
Below is just the visually different version in case anyone just wants to see one part of the correlation since other half is just the repeatation

In [9]:
```
corrplot(cor(data), type = "lower", order = "hclust",
         tl.col = "black", tl.srt = 45)
```



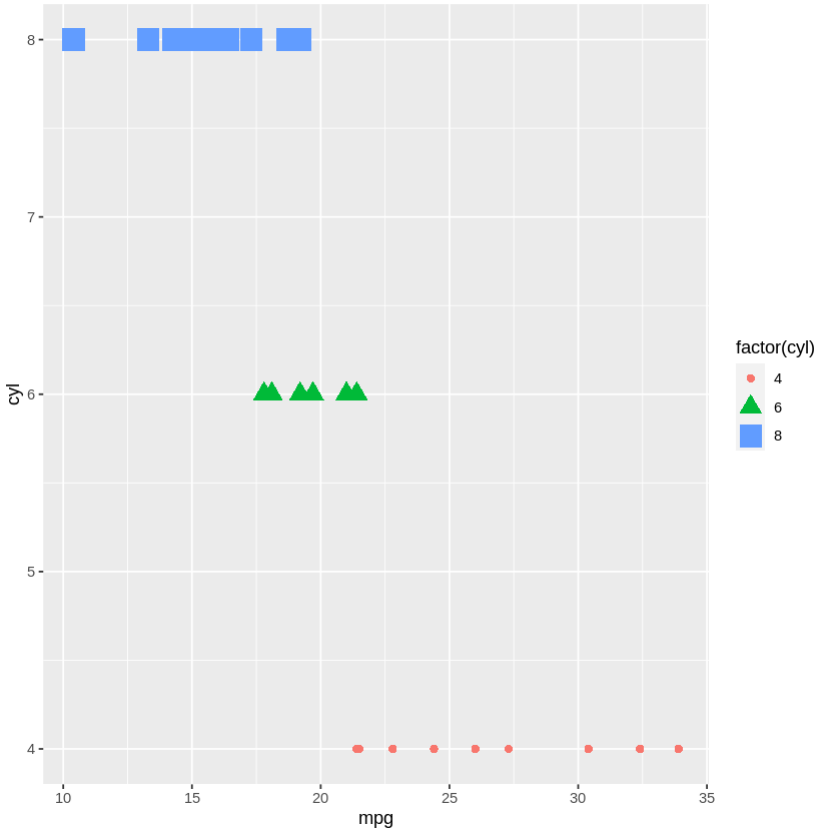
Various version of scatter Plot for mtcars data

In [10]:
```
qplot(mpg, wt, data = mtcars, colour =  factor(cyl))
```



In [12]:
```
qplot(mpg, cyl, data = mtcars,shape=factor(cyl), size = factor(cyl),  colour =  factor(
```

```
Warning message:
“Using size for a discrete variable is not advised.”
```



In [13]:
```
qplot(mpg,wt,data=mtcars,facets=cyl~.,colour=factor(cyl))
```