Generate network for your data

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Load

```
# install.packages('netknitr')
library(netknitr)
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(visNetwork)
```

Data

```
set.seed(7979)

mtcars$name <- row.names(mtcars)
cols <- c('gear', 'name', "cyl")
my_data <- mtcars[,cols]

res <- lapply(names(my_data), FUN = function(i) {
  paste0(i, " : ", my_data[[i]])
}) %>% do.call('cbind', .) %>% as.data.frame()
names(res) <- names(my_data)
res %>% head()
```

```
##       gear                     name     cyl
## 1 gear : 4         name : Mazda RX4 cyl : 6
## 2 gear : 4     name : Mazda RX4 Wag cyl : 6
## 3 gear : 4        name : Datsun 710 cyl : 4
## 4 gear : 3    name : Hornet 4 Drive cyl : 6
## 5 gear : 3 name : Hornet Sportabout cyl : 8
## 6 gear : 3           name : Valiant cyl : 6
```

```
my_data <- res
head(my_data)
```

```
##       gear                     name     cyl
```

```
## 1 gear : 4         name : Mazda RX4 cyl : 6
## 2 gear : 4     name : Mazda RX4 Wag cyl : 6
## 3 gear : 4        name : Datsun 710 cyl : 4
## 4 gear : 3    name : Hornet 4 Drive cyl : 6
## 5 gear : 3 name : Hornet Sportabout cyl : 8
## 6 gear : 3           name : Valiant cyl : 6
```

Determine Nodes

```
## [1] "----Columns considerd for nodes----->"
## [1] "gear"
## [1] "name"
## [1] "cyl"
```

```
##    id                     label group
## 1   1                  gear : 4  gear
## 2   2                  gear : 3  gear
## 3   3                  gear : 5  gear
## 4   4           name : Mazda RX4  name
## 5   5       name : Mazda RX4 Wag  name
## 6   6          name : Datsun 710  name
## 7   7      name : Hornet 4 Drive  name
## 8   8   name : Hornet Sportabout  name
## 9   9             name : Valiant  name
## 10 10          name : Duster 360  name
## 11 11           name : Merc 240D  name
## 12 12            name : Merc 230  name
## 13 13            name : Merc 280  name
## 14 14           name : Merc 280C  name
## 15 15          name : Merc 450SE  name
## 16 16          name : Merc 450SL  name
## 17 17         name : Merc 450SLC  name
## 18 18  name : Cadillac Fleetwood  name
## 19 19 name : Lincoln Continental  name
## 20 20   name : Chrysler Imperial  name
## 21 21            name : Fiat 128  name
## 22 22         name : Honda Civic  name
## 23 23      name : Toyota Corolla  name
## 24 24       name : Toyota Corona  name
## 25 25    name : Dodge Challenger  name
## 26 26         name : AMC Javelin  name
## 27 27          name : Camaro Z28  name
## 28 28    name : Pontiac Firebird  name
## 29 29           name : Fiat X1-9  name
## 30 30       name : Porsche 914-2  name
## 31 31        name : Lotus Europa  name
## 32 32      name : Ford Pantera L  name
## 33 33        name : Ferrari Dino  name
## 34 34       name : Maserati Bora  name
## 35 35          name : Volvo 142E  name
## 36 36                  cyl : 6   cyl
## 37 37                  cyl : 4   cyl
## 38 38                  cyl : 8   cyl
```

Can include shapes and Colors

```
nodes$shape <- getShapes(nodes)
nodes$colors <- sample(c("darkred", "grey", "orange", "darkblue", "purple", 'green'), nrow(nodes), repla
head(nodes)
```

```
##   id                label group   shape colors
## 1  1             gear : 4  gear diamond  green
## 2  2             gear : 3  gear diamond  green
## 3  3             gear : 5  gear diamond   grey
## 4  4     name : Mazda RX4  name     box   grey
## 5  5 name : Mazda RX4 Wag  name     box orange
## 6  6    name : Datsun 710  name     box orange
```

Determine Edges

```
associations <- getAssociation(my_data[,cols])
edges <- getEdges(associations,nodes)
head(edges)
```

```
##   from to
## 1    1  4
## 2    1  5
## 3    1  6
## 4    1 11
## 5    1 12
## 6    1 13
```

Network

```
visNetwork(nodes, edges) %>%
  visNodes(color = list(background = "lightblue",
                        border = "darkblue",
                        highlight = "yellow"),
           shadow = list(enabled = TRUE, size = 10))
```