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#####
# Implement correspondence analysis
#####
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```
ca.out = ca(datacar)
summary(ca.out)
```

```
##
## Principal inertias (eigenvalues):
##
## dim    value      %   cum%   scree plot
## 1      0.032622  61.7  61.7   *****
## 2      0.017765  33.6  95.4   *****
## 3      0.000985   1.9  97.2
## 4      0.000727   1.4  98.6
## 5      0.000380   0.7  99.3
## 6      0.000182   0.3  99.7
## 7      0.000118   0.2  99.9
## 8      3.9e-050   0.1 100.0
## 9      2e-05000   0.0 100.0
## -----
## Total: 0.052838 100.0
##
##
## Rows:
##      name  mass  qlt  inr    k=1 cor ctr    k=2 cor ctr
## 1 | BMW3 |   98 969   69 | -184 915 102 |  -45  54  11 |
## 2 | Frdx |  108 959  122 |  136 307  61 |  198 652 237 |
## 3 | iJ30 |   91 943   38 |  -43  84   5 | -138 859  97 |
## 4 | JpGC |  111 986  117 |  108 208  39 |  208 778 270 |
## 5 | LES3 |  104 916   57 |  -64 141  13 | -150 775 132 |
## 6 | ChTC |   76 981  210 |  371 942 321 |  -75  39  24 |
## 7 | MC28 |  102 940   33 |  -56 181  10 | -114 759  75 |
## 8 | S900 |  103 541   19 |  -71 523  16 |   13  18   1 |
## 9 | PrsB |  112 979  223 | -296 834 301 |  123 145  96 |
## 10 | VV90 |   94 899  111 |  214 731 132 | -103 169  56 |
##
## Columns:
##      name  mass  qlt  inr    k=1 cor ctr    k=2 cor ctr
## 1 | exct |   64 949   58 | -201 849  79 |   69 100  17 |
## 2 | dpnd |   73 876   39 |   78 214  14 | -138 662  78 |
## 3 | lxrs |   69 921   36 |  -97 351  20 | -124 570  60 |
## 4 | otdr |   53 987  139 |  181 240  54 |  320 747 309 |
## 5 | pwrfl |   72 781    8 |  -57 556   7 |   36 225   5 |
## 6 | styl |   69 966   48 | -189 960  75 |  -15   6   1 |
## 7 | cmfr |   74 890   29 |   85 349  16 | -105 540  46 |
## 8 | rggd |   51 980  115 |  188 295  55 |  287 685 234 |
## 9 | fun |   69 941   47 | -175 856  66 |   55  85  12 |
## 10 | safe |   75 919   53 |  132 463  40 | -131 457  72 |
## 11 | prfr |   69 888   49 | -168 744  59 |  -74 144  21 |
## 12 | fmly |   69 986  201 |  375 912 297 | -107  74  44 |
## 13 | vrst |   62 968   72 |  243 955 112 |   28  12   3 |
## 14 | sprr |   60 919   65 | -164 477  50 |  158 442  85 |
```

```
## 15 | stts |    71  945   41 | -160 842  56 |  -56 104  13 |

#####
# Correspondence Analysis, BIPLLOT
#####
fviz_ca_biplot(ca.out, repel=TRUE,
               title = "Biplot, Correspondence Analysis",
               arrows=c(TRUE,FALSE), map="colprincipal",
               labels=4)
```