Plotting PCA/clustering results using ggplot2 and ggfortify

This document explains PCA/clustering related plotting using `{ggplot2}` and `{ggfortify}`.

Installation

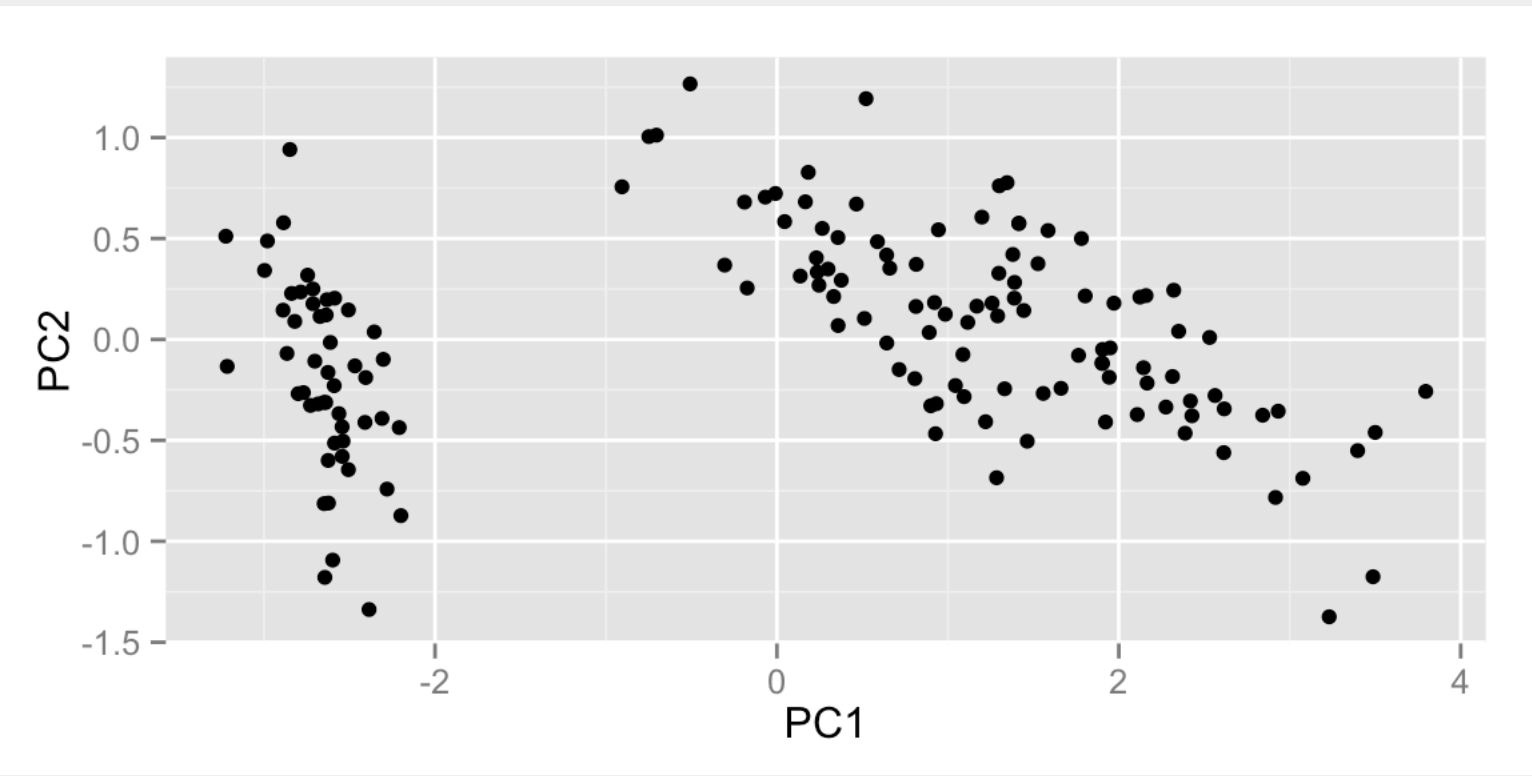
First, install `ggfortify` from CRAN.

```
install.packages('ggfortify')
```

Plotting PCA (Principal Component Analysis)

`{ggfortify}` let `{ggplot2}` know how to interpret PCA objects. After loading `{ggfortify}`, you can use `ggplot2::autoplot` function for `stats::prcomp` and `stats::princomp` objects.

```
library(ggfortify)
df <- iris[c(1, 2, 3, 4)]
autoplot(prcomp(df))
```



PCA result should only contains numeric values. If you want to colorize by non-numeric values which original data has, pass original data using `data` keyword and then specify column name by `colour` keyword. Use `help(autoplot.prcomp)` (or `help(autoplot.*)` for any other objects) to check available options.

```
autoplot(prcomp(df), data = iris, colour = 'Species')
```