project-performance

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com (http://rmarkdown.rstudio.com).

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
library("ProjectTemplate")

library("data.table")

setwd("~/R/AirlineDelayAndCancellationsAnalysis")

load.project()
```

```
## Project name: AirlineDelayAndCancellationsAnalysis
```

```
## Loading project configuration
```

```
## Autoloading packages
```

```
##  Loading package: reshape
```

```
## Loading required package: reshape
```

```
##
## Attaching package: 'reshape'
```

```
## The following object is masked from 'package:data.table':
##
##     melt
```

```
##  Loading package: plyr
```

```
## Loading required package: plyr
```

```
##
## Attaching package: 'plyr'
```

```
## The following objects are masked from 'package:reshape':
##
##     rename, round_any
```

```
##  Loading package: dplyr
```

```
## Loading required package: dplyr
```

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

```
## The following objects are masked from 'package:plyr':
##
##     arrange, count, desc, failwith, id, mutate, rename, summarise,
##     summarize
```

```
## The following object is masked from 'package:reshape':
##
##     rename
```

```
## The following objects are masked from 'package:data.table':
##
##     between, first, last
```

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

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

```
##  Loading package: ggplot2
```

```
## Loading required package: ggplot2
```

```
##  Loading package: stringr
```

```
## Loading required package: stringr
```

```
##  Loading package: lubridate
```

```
## Loading required package: lubridate
```

```
##
## Attaching package: 'lubridate'
```

```
## The following object is masked from 'package:plyr':
##
##     here
```

```
## The following object is masked from 'package:reshape':
##
##     stamp
```

```
## The following objects are masked from 'package:data.table':
##
##     hour, isoweek, mday, minute, month, quarter, second, wday,
##     week, yday, year
```

```
## The following object is masked from 'package:base':
##
##     date
```

```
## Autoloading helper functions
```

```
##  Running helper script: globals.R
```

```
##  Running helper script: helpers.R
```

```
## Autoloading data
```

```
##  Loading cached data set: airlines
```

```
##  Loading cached data set: airports
```

```
##  Loading cached data set: flights
```

```
## Munging data
```

```
##  Running preprocessing script: 01-A.R
```

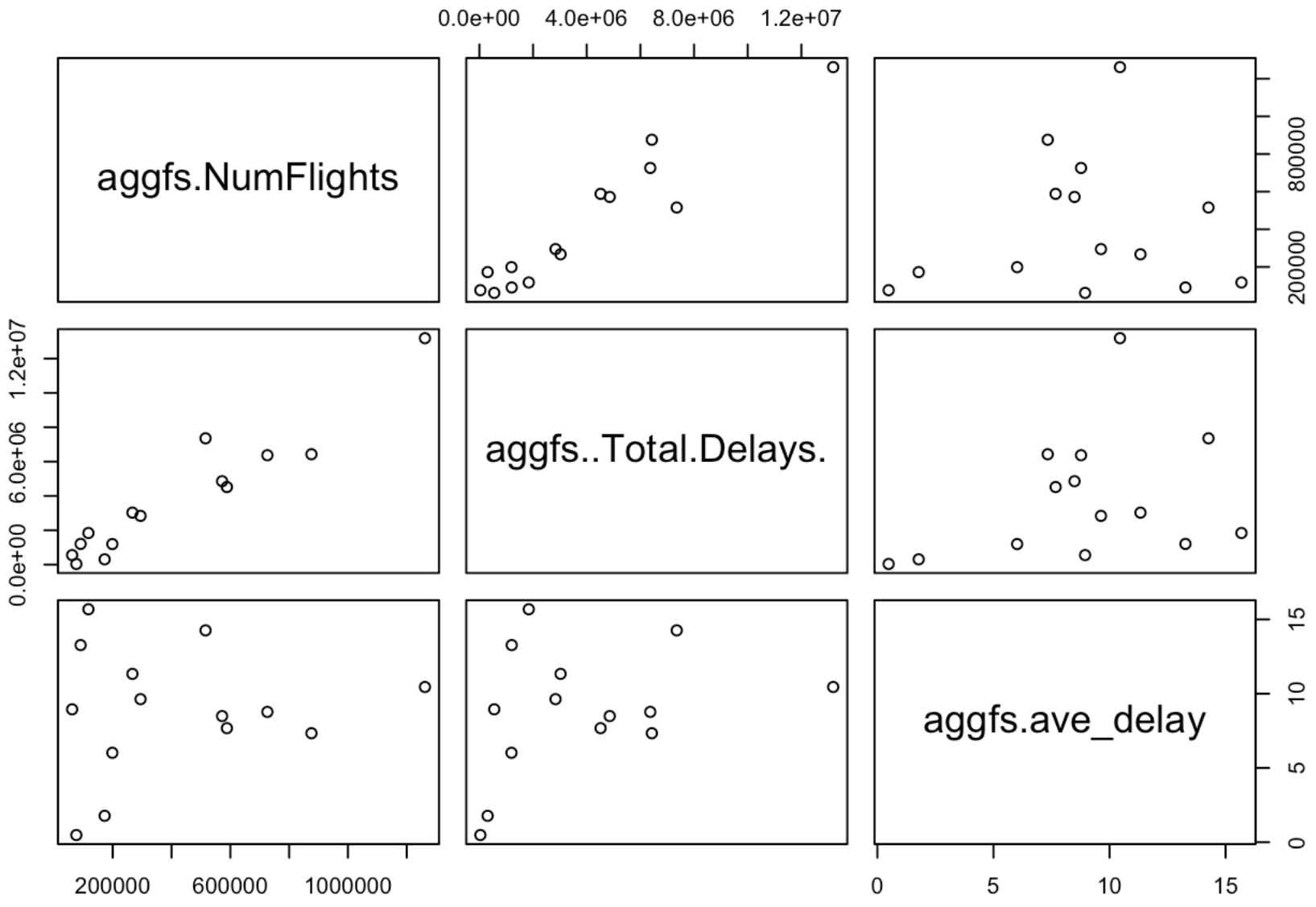
Analyse flight delays

```
alldelays <- data.frame(flights$AIRLINE, flights$DEPARTURE_DELAY)

alldelays[is.na(alldelays)] <- 0

alldelaysagg <- aggregate(alldelays$flights.DEPARTURE_DELAY, by=list(alldelays$flight
s.AIRLINE), FUN=sum )

fdelay <- alldelaysagg[order(-alldelaysagg$x),]

setnames(fdelay,"Group.1","IATA_CODE")

setnames(fdelay,"x","Total Delays")

fmdelay <- merge(x=fdelay,y=airlines,by="IATA_CODE",all=TRUE)

fsdelay <- fmdelay[order(-fmdelay$`Total Delays`),]
```

```
flights$FLIGHT_INSTANCE <- 1

allfilghtsinstance <- aggregate(flights$FLIGHT_INSTANCE, by=list(flights$AIRLINE), FU
N=sum )

setnames(allfilghtsinstance, "Group.1", "IATA_CODE")

setnames(allfilghtsinstance, "x", "NumFlights")

aggf = merge(x=allfilghtsinstance,y=fmdelay,by="IATA_CODE",all=TRUE)

aggf$ave_delay <- (aggf$`Total Delays` * 1.0) / aggf$NumFlights

aggfs <- aggf[order(-aggf$ave_delay),]
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.