

M4 Competition

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1. Import packages

```
library(M4comp2018)
library(xts)
library(astsa)
library(ggplot2)
library(forecast)
library(ggfortify)
library(fpp2)
```

2. Load M4 data

```
data(M4)
```

3. Create a data frame to summarize the M4 data structure

```
df = data.frame(matrix(ncol = 5, nrow = 100000))
colnames(df) = c("st", "n", "type", "h", "period")
df$st = unlist(Map(function(l) {as.character(l$st[[1]][1])}, M4))
df$n = unlist(Map(function(l) {c(l$n[[1]][1]) }, M4))
df$type = unlist(Map(function(l) {as.character(l$type[[1]][1])}, M4))
df$h = unlist(Map(function(l) {c(l$h[[1]][1]) }, M4))
df$period = unlist(Map(function(l) {as.character(l$period[[1]][1])}, M4))
```

```
str(df)
```

```
## 'data.frame': 100000 obs. of 5 variables:
## $ st : chr "D1" "D2" "D3" "D4" ...
## $ n : int 1006 1006 130 169 156 1006 1006 999 999 674 ...
## $ type : chr "Macro" "Macro" "Macro" "Macro" ...
## $ h : int 14 14 14 14 14 14 14 14 14 14 ...
## $ period: chr "Daily" "Daily" "Daily" "Daily" ...
```

```
table(df$period)
```

