Ch2 | Time Series Graphics

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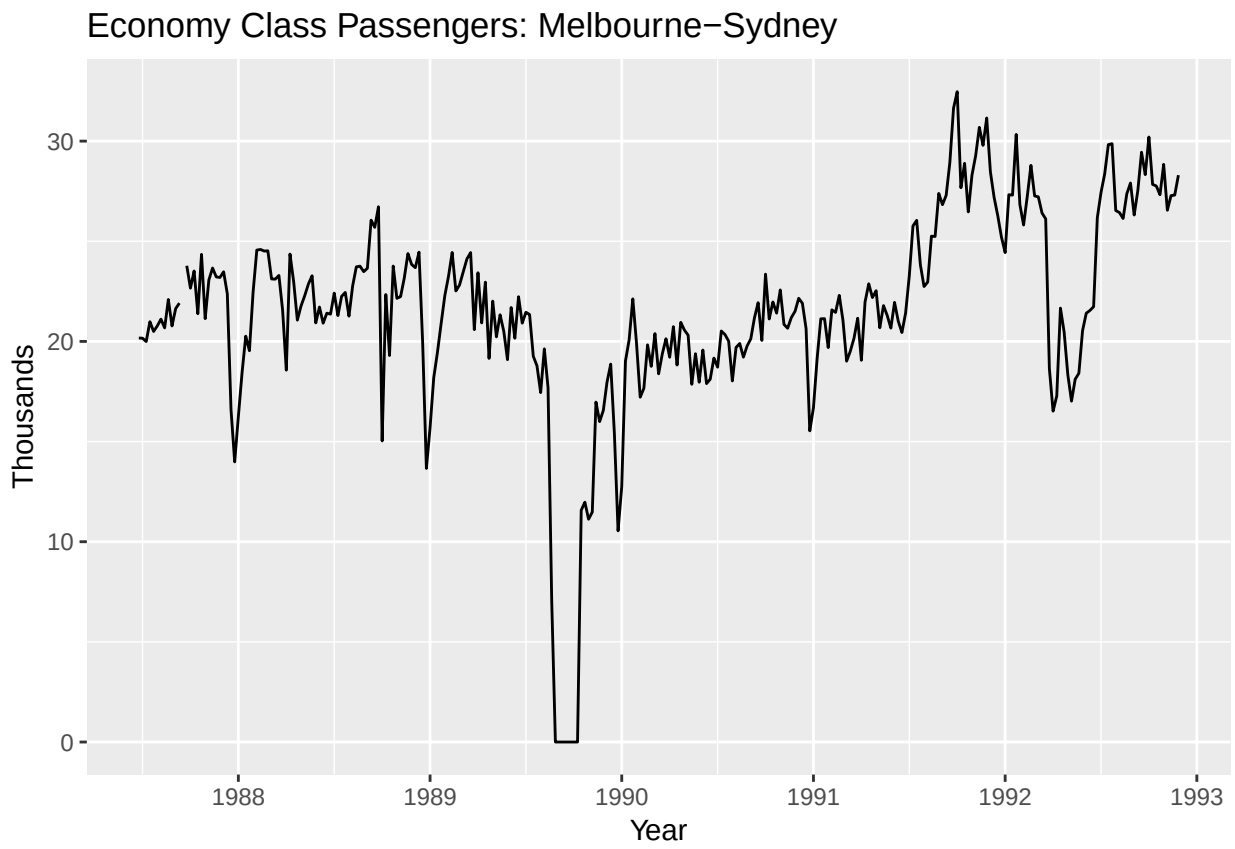
2.1 | ts Objects

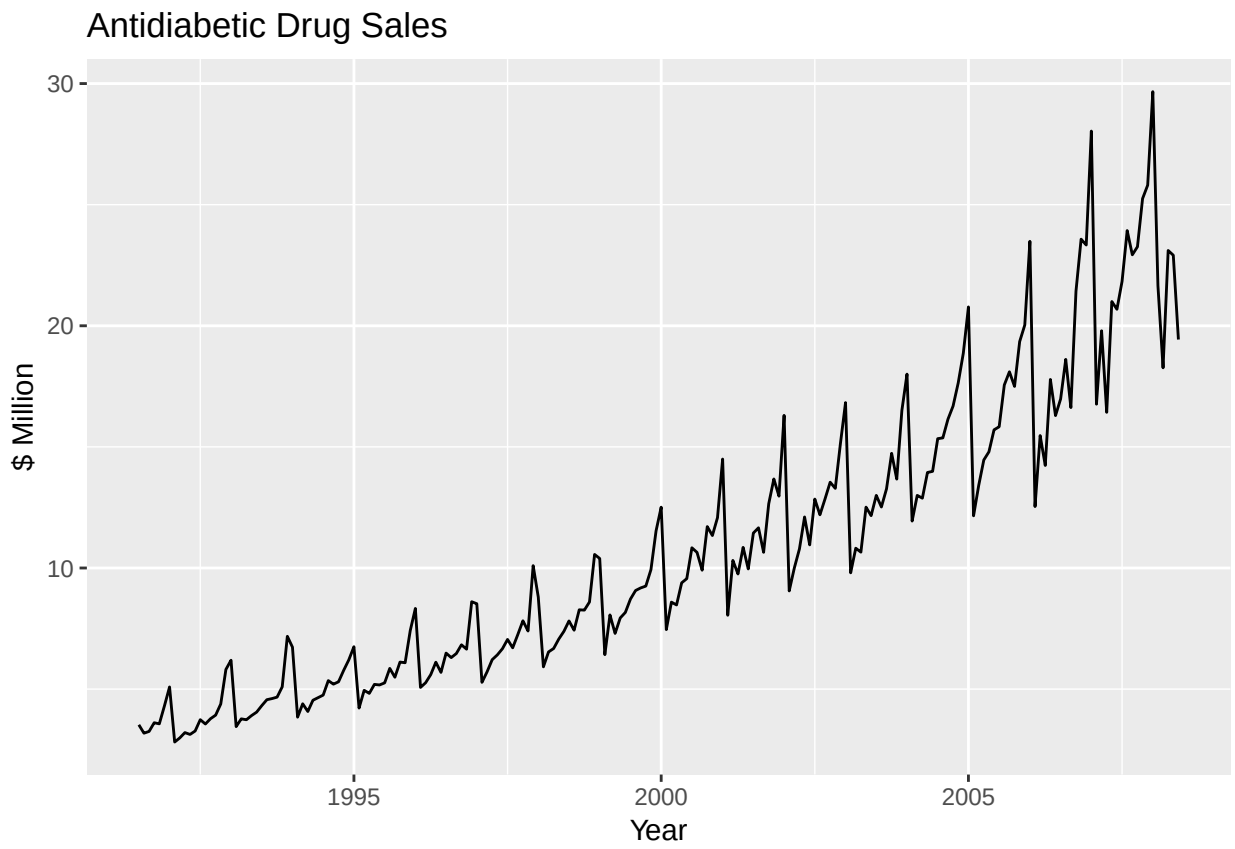
```
# create a time series object
y <- ts(c(123, 39, 78, 52, 110), start = 2012)

# for observations more frequent than yearly, we can use the frequency argument

# generate some data
vec_length <- 15*12
z <- vector(mode = "numeric", length = vec_length)

for (i in seq_along(z)){
  z[i] <- rnorm(1, mean = 0, sd = 1)
}

# create a monthly data table as a ts object
y <- ts(z, start = 2003, frequency = 12)
```

2.2 | Time Plots

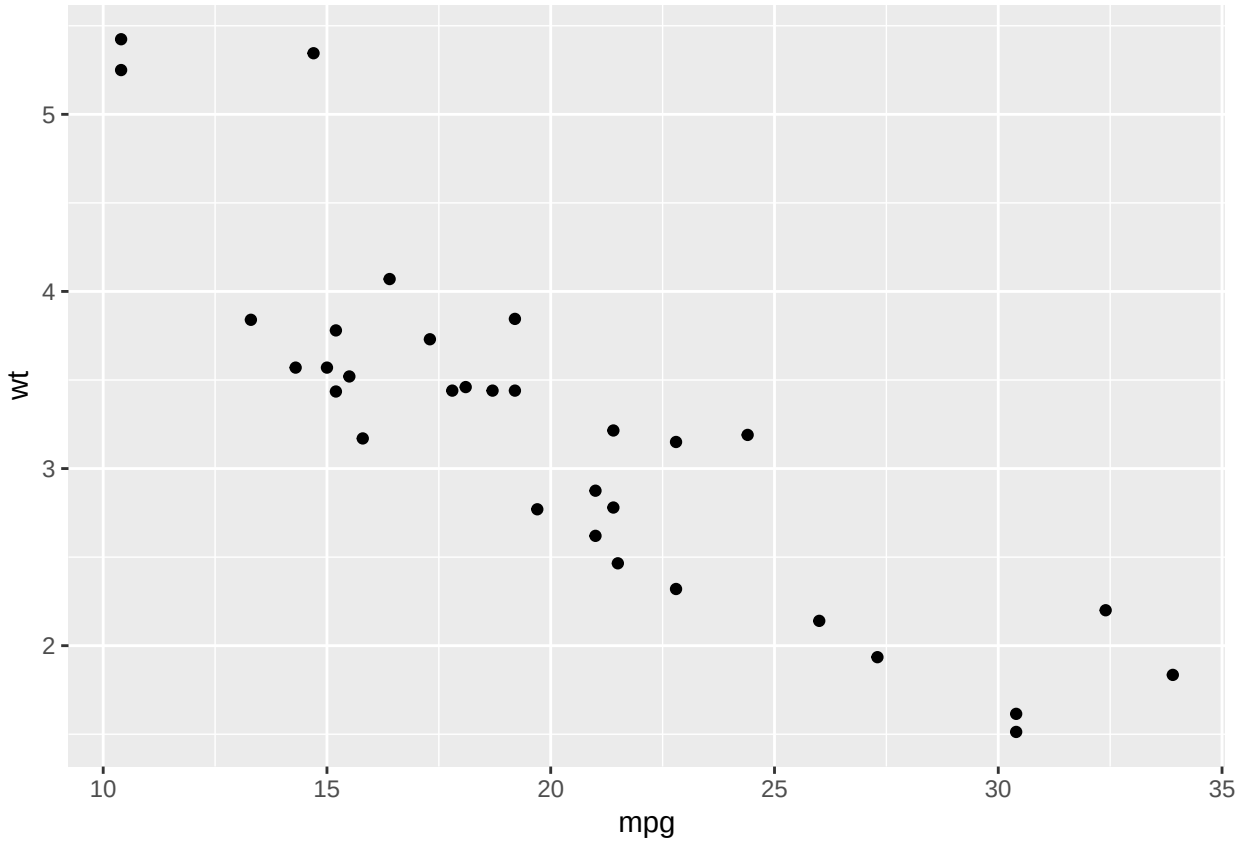
```
# plot economy class passengers in melbourne-sydney flights
autoplot(melsyd[, "Economy.Class"]) +
  ggtitle("Economy Class Passengers: Melbourne-Sydney") +
  xlab("Year") + ylab("Thousands")
```




```
# antidiabetic drug sales
autoplot(a10) +
  ggtitle("Antidiabetic Drug Sales") +
  ylab("$ Million") + xlab("Year") +
  theme_gray()
```




```
ggplot(mtcars, aes(mpg, wt)) + geom_point() + theme_gray()
```


wt
5
4
3
2
10
15
20
25
30
35
mpg