

DS_Nov_10-Graphics_Using_ggplot-2

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```
set.seed(1)
library(dplyr)
```

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

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

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

```
library(ggplot2)
```

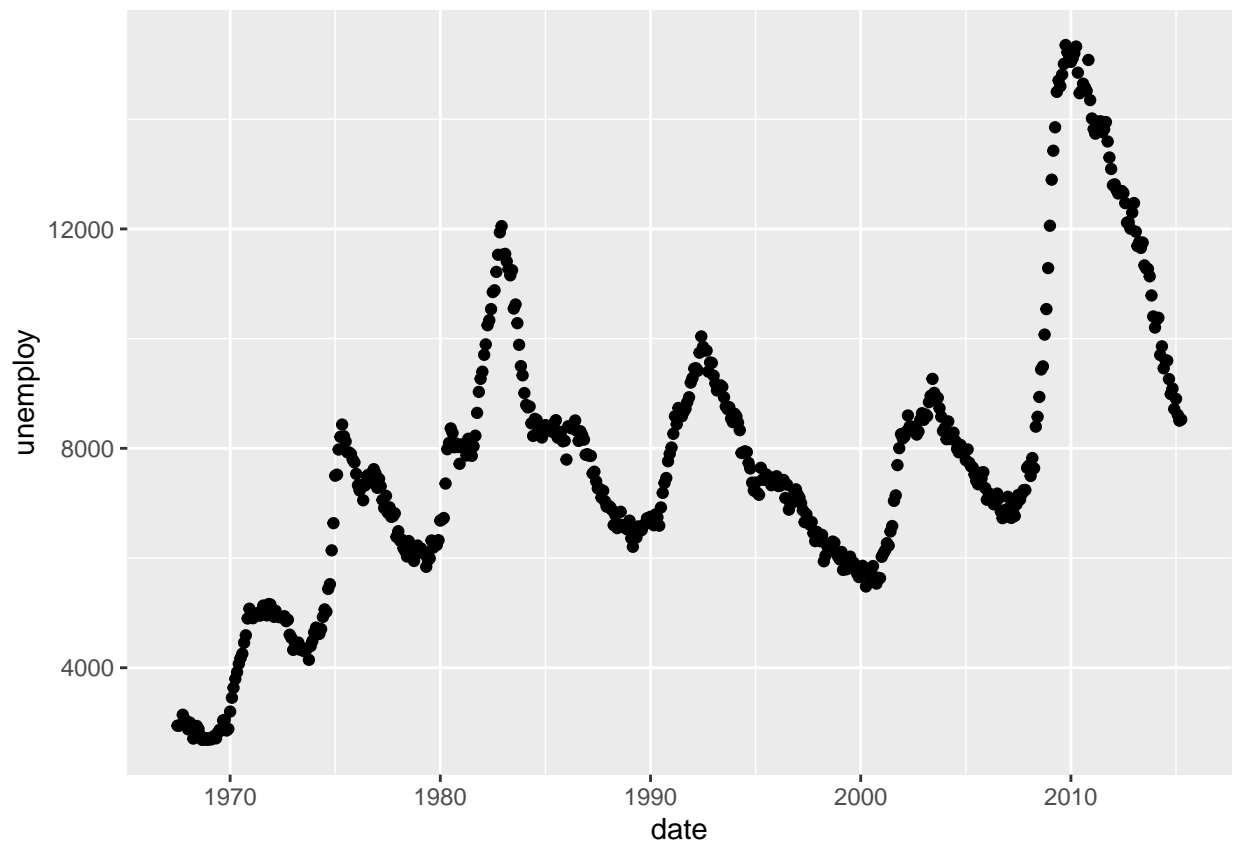
The dataset which will be used here is the `economics` dataset.

```
economics
```

```
## # A tibble: 574 x 6
##   date       pce    pop psavert uempmed unemploy
##   <date>     <dbl> <dbl>   <dbl>   <dbl>   <dbl>
## 1 1967-07-01  507. 198712    12.6     4.5    2944
## 2 1967-08-01  510. 198911    12.6     4.7    2945
## 3 1967-09-01  516. 199113    11.9     4.6    2958
## 4 1967-10-01  512. 199311    12.9     4.9    3143
## 5 1967-11-01  517. 199498    12.8     4.7    3066
## 6 1967-12-01  525. 199657    11.8     4.8    3018
## 7 1968-01-01  531. 199808    11.7     5.1    2878
## 8 1968-02-01  534. 199920    12.3     4.5    3001
## 9 1968-03-01  544. 200056    11.7     4.1    2877
## 10 1968-04-01  544 200208    12.3     4.6    2709
## # ... with 564 more rows
```

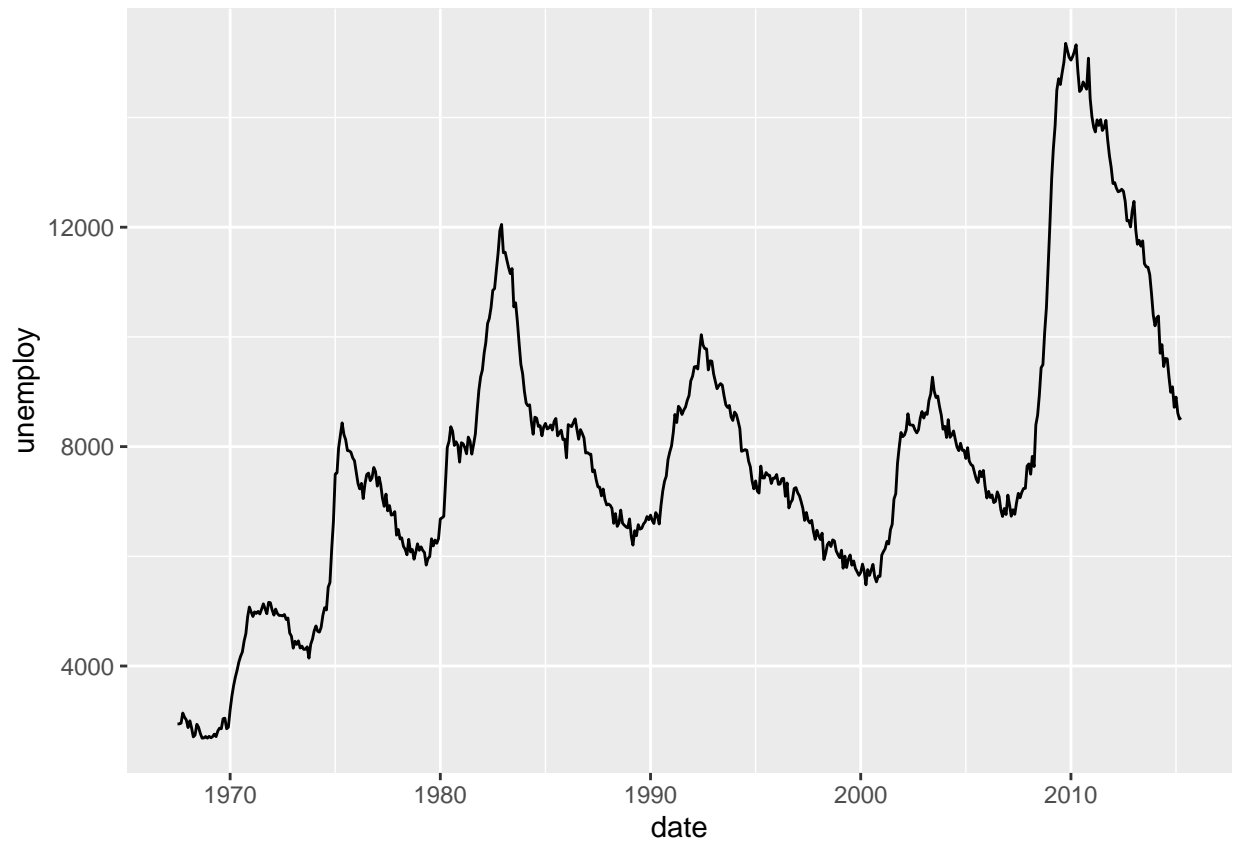
Scatterplot number of unemployed against time.

```
qplot(date, unemploy, data = economics)
```



> But, for time-series data, a line plot should be used.

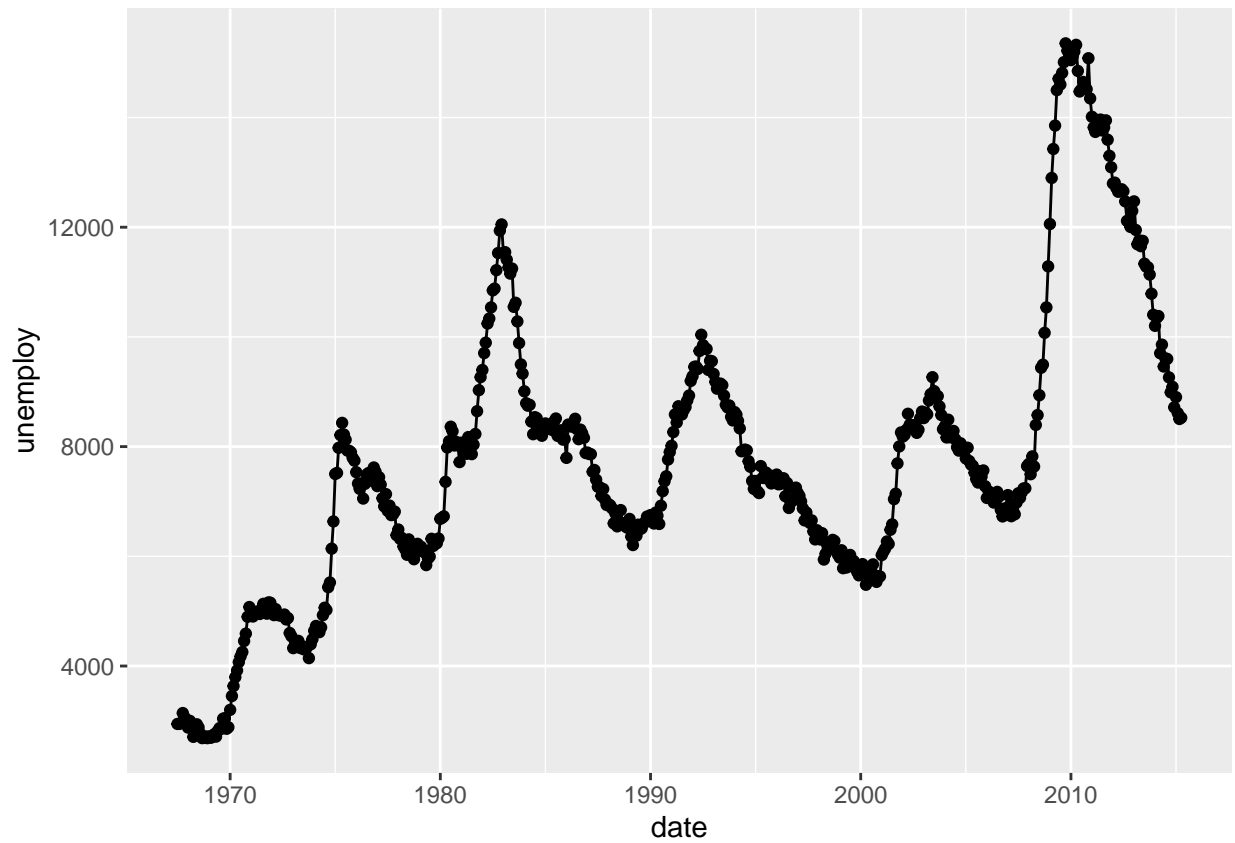
```
qplot(date, unemploy, data = economics, geom = c("line"))
```



```
#ggplot(data = economics, aes(x = date, y = unemploy)) + geom_line()
```

Display both the points and the lines

```
qplot(date, unemploy, data = economics, geom = c("point", "line"))
```

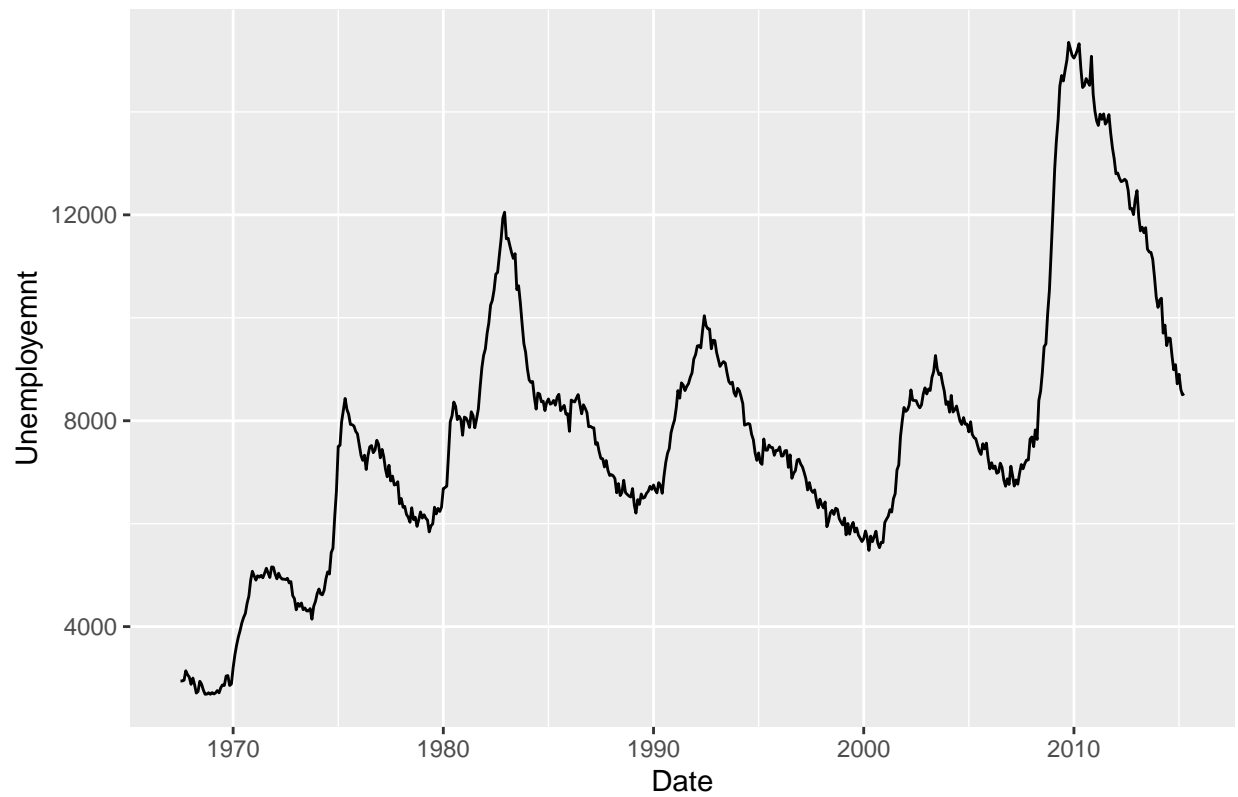


```
#ggplot(data = economics, aes(x = date, y = unemploy)) + geom_line() + geom_point()
```

Change the x-axis label to “DATE”, give a proper y-axis title and a proper plot-title.

```
qplot(date, unemploy, data = economics, geom = c("line"), xlab = "Date", ylab = "Unemployment", main =
```

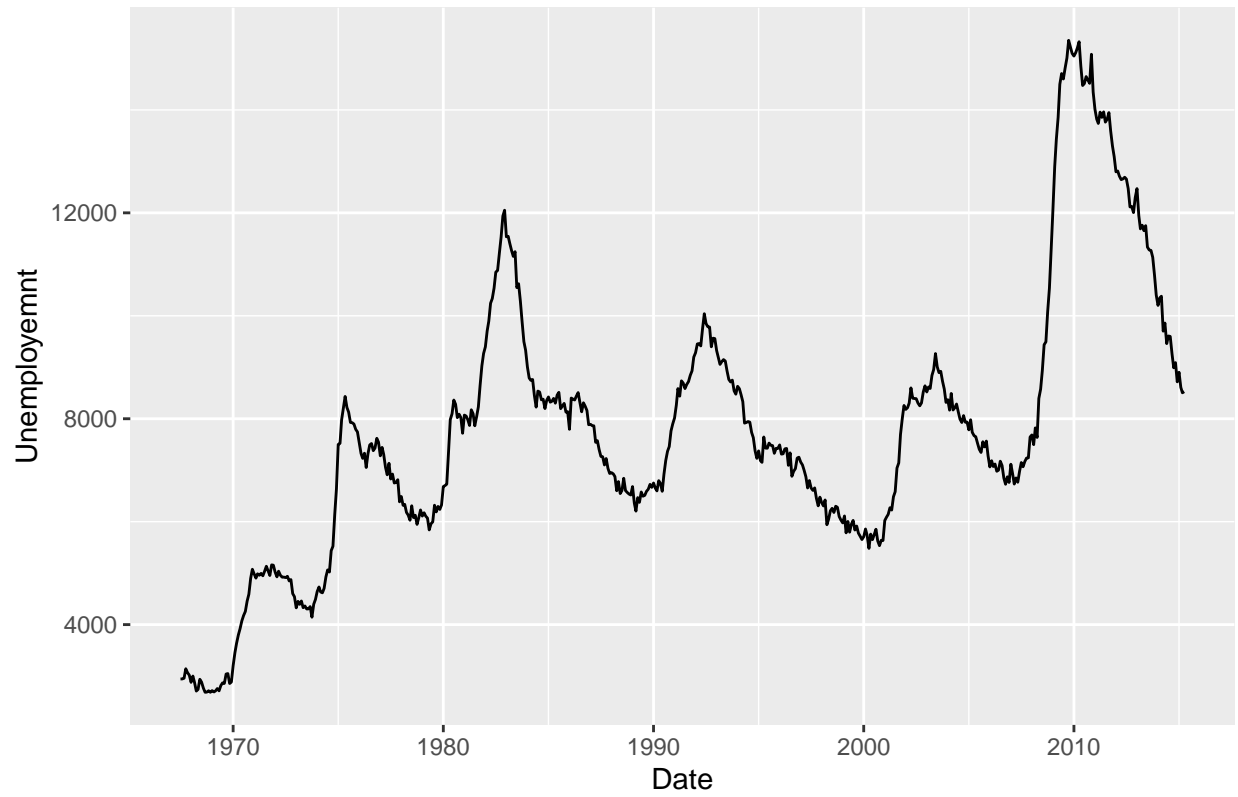
Date ~ Unemployment time-series plot



Change the x axis intervals to 5 years.

```
qplot(date, unemploy, data = economics, geom = c("line"), xlab = "Date", ylab = "Unemployment", main = "Date ~ Unemployment time-series plot")
```

Date ~ Unemployment time-series plot



Obtain a line diagram showing number of unemployed as well