Edureka

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Case study 2

```
setwd("~/Desktop")
job <- read.csv("jobs.csv")
head(job)
```

```
##   X   BC Alberta Prairies Ontario Quebec Atlantic     Date
## 1 1 1752    1366      982    5239   3196      947 95.00000
## 2 2 1737    1369      981    5233   3205      946 95.08333
## 3 3 1765    1380      984    5212   3191      954 95.16667
## 4 4 1762    1372      982    5222   3197      953 95.25000
## 5 5 1754    1368      981    5229   3202      952 95.33333
## 6 6 1759    1375      983    5225   3201      949 95.41667
```

```
str(job)
```

```
## 'data.frame':    24 obs. of  8 variables:
##  $ X       : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ BC      : int  1752 1737 1765 1762 1754 1759 1766 1775 1777 1771 ...
##  $ Alberta : int  1366 1369 1380 1372 1368 1375 1371 1376 1374 1379 ...
##  $ Prairies: int  982 981 984 982 981 983 983 983 983 979 ...
##  $ Ontario : int  5239 5233 5212 5222 5229 5225 5220 5216 5226 5249 ...
##  $ Quebec  : int  3196 3205 3191 3197 3202 3201 3194 3203 3208 3222 ...
##  $ Atlantic: int  947 946 954 953 952 949 951 957 960 961 ...
##  $ Date    : num  95 95.1 95.2 95.2 95.3 ...
```

Create an Alberta and BC data frame

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 3.5.2
```

```
##
## 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
```

```
job1 <- job%>%select(BC,Alberta)
job1
```

```
##      BC Alberta
## 1  1752    1366
## 2  1737    1369
## 3  1765    1380
## 4  1762    1372
## 5  1754    1368
## 6  1759    1375
## 7  1766    1371
## 8  1775    1376
## 9  1777    1374
## 10 1771    1379
## 11 1757    1378
## 12 1766    1380
## 13 1786    1389
## 14 1784    1396
## 15 1791    1410
## 16 1800    1417
## 17 1800    1407
## 18 1798    1408
## 19 1814    1420
## 20 1803    1409
## 21 1796    1413
## 22 1818    1416
## 23 1829    1426
## 24 1840    1436
```

Find the month with the highest total employment across the states

```
#Find the month with the highest total employment across the states
job$Date <- as.Date(job$Date,origin="1990-01-01")
tapply(job$Atlantic,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##        968        958
```

```
tapply(job$BC,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##       1777       1840
```

```
tapply(job$Alberta,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##       1380       1436
```

```
tapply(job$Ontario,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##       5258       5360
```

```
tapply(job$Atlantic,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##        968        958
```

```
tapply(job$Prairies,job$Date,max)
```

```
## 1990-04-06 1990-04-07
##        984        999
```

Find the months in which employment figures in Atlantic went below 950.

```
below_950 <-job%>%filter(Atlantic < 950)%>%select(Atlantic,Date)%>%group_by(Date)
below_950
```

```
## # A tibble: 8 x 2
## # Groups:   Date [8]
##   Atlantic Date
##      <int> <date>
## 1      947 1990-04-06
## 2      946 1990-04-06
## 3      949 1990-04-06
## 4      941 1990-04-07
## 5      945 1990-04-07
## 6      944 1990-04-07
## 7      943 1990-04-07
## 8      942 1990-04-07
```

Sort the figures for Quebec in ascending order

```
job3 <- job[order(job$Quebec),]
job3
```

```
##      X   BC Alberta Prairies Ontario Quebec Atlantic       Date
## 19 19 1814    1420      983    5309   3167      951 1990-04-07
## 3   3 1765    1380      984    5212   3191      954 1990-04-06
## 23 23 1829    1426      990    5347   3193      943 1990-04-07
## 7   7 1766    1371      983    5220   3194      951 1990-04-06
## 1   1 1752    1366      982    5239   3196      947 1990-04-06
## 4   4 1762    1372      982    5222   3197      953 1990-04-06
## 21 21 1796    1413      988    5325   3199      945 1990-04-07
## 22 22 1818    1416      994    5352   3199      944 1990-04-07
## 6   6 1759    1375      983    5225   3201      949 1990-04-06
## 5   5 1754    1368      981    5229   3202      952 1990-04-06
## 18 18 1798    1408      980    5278   3202      950 1990-04-07
## 8   8 1775    1376      983    5216   3203      957 1990-04-06
## 2   2 1737    1369      981    5233   3205      946 1990-04-06
## 11 11 1757    1378      973    5252   3207      956 1990-04-06
## 24 24 1840    1436      999    5335   3207      942 1990-04-07
## 9   9 1777    1374      983    5226   3208      960 1990-04-06
## 20 20 1803    1409      983    5360   3208      953 1990-04-07
## 10 10 1771    1379      979    5249   3222      961 1990-04-06
## 12 12 1766    1380      979    5258   3225      968 1990-04-06
## 15 15 1791    1410      985    5291   3238      941 1990-04-07
## 16 16 1800    1417      987    5299   3238      952 1990-04-07
## 17 17 1800    1407      986    5282   3243      952 1990-04-07
## 13 13 1786    1389      974    5261   3253      958 1990-04-07
## 14 14 1784    1396      981    5292   3257      950 1990-04-07
```