Programming Assignmet Week2

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Programming Assigment

Part 1

```
source("pollutantmean.R")
print(R.version.string)
```

```
## [1] "R version 4.0.2 (2020-06-22)"
```

```
mp = file.path("..","Data","specdata")
pollutantmean(mp, "nitrate")
```

```
## [1] 1.702932
```

```
#question 1
pollutantmean(mp, "sulfate", 1:10)
```

```
## [1] 4.064128
```

```
pollutantmean(mp, "nitrate", 70:72)
```

```
## [1] 1.706047
```

```
pollutantmean(mp, "nitrate", 23)
```

```
## [1] 1.280833
```

Part 2

```
source("complete.R")
```

```
mp = file.path("..","Data","specdata")
complete(mp, 1)
```

```
##   id nobs
## 1  1  117
```

```
complete(mp, c(2, 4, 8, 10, 12))
```

```
##   id nobs
## 1  2 1041
## 2  4  474
## 3  8  192
## 4 10  148
## 5 12   96
```

```
complete(mp, 30:25)
```

```
##   id nobs
## 1 30  932
## 2 29  711
## 3 28  475
## 4 27  338
## 5 26  586
## 6 25  463
```

```
complete(mp, 3)
```

```
##   id nobs
## 1  3  243
```

Part 3

```
source("corr.R")
```

```
mp = file.path("..","Data","specdata")
cr <- corr(mp, 150)
head(cr)
```

```
## [1] -0.01895754 -0.14051254 -0.04389737 -0.06815956 -0.12350667 -0.07588814
```

```
summary(cr)
```

```
##      Min.   1st Qu.    Median      Mean   3rd Qu.      Max.
## -0.210568 -0.003938  0.000000  0.088281  0.173765  0.763129
```

```r
cr <- corr(mp, 400)
head(cr)
```

```
## [1] -0.01895754 -0.04389737 -0.06815956 -0.07588814  0.76312884 -0.15782860
```

```r
summary(cr)
```

```
##      Min.   1st Qu.    Median      Mean   3rd Qu.      Max.
## -0.176233  0.000000  0.000000  0.053434  0.003864  0.763129
```

```r
cr <- corr(mp, 5000)
summary(cr)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##       0       0       0       0       0       0
```

```r
length(cr)
```

```
## [1] 332
```

```r
cr <- corr(mp)
summary(cr)
```

```
##     Min.  1st Qu.   Median     Mean  3rd Qu.     Max.
## -1.00000 -0.04940  0.09734  0.13313  0.27558  1.00000
```

```r
length(cr)
```

```
## [1] 332
```