

Exercise 1:

Check your current directory:

```
dir()
```

Set your directory to Where you download the csv file

```
setwd("~/desktop/...")
```

Now, go find a good data set from data.gov and download it to your working directory. Let's say we got something like this:

```
id,name,salary,start_date,dept
1,Rick,623.3,2012-01-01,IT
2,Dan,515.2,2013-09-23,Operations
3,Michelle,611,2014-11-15,IT
4,Ryan,729,2014-05-11,HR
5,Gary,843.25,2015-03-27,Finance
6,Nina,578,2013-05-21,IT
7,Simon,632.8,2013-07-30,Operations
8,Guru,722.5,2014-06-17,Finance
```

Let's make a csv using the data provided above.

Read the data created and name it data

```
Data <- read.csv("data.csv")
```

```
Print(data)
```

Let's see if it is actually a dataframe

```
Print(is.data.frame(data))
```

We do the normal stuff regarding knowing the columns and the rows

```
Ncol(data)
```

```
Nrow(data)
```

We wanna extract the maximum salary from the csv file and name it max

```
Max <- max(data$salary)
```

Let's get the row of the of that person who got the most salary

```
Ppl <- subset(data.salary == max(salary))
```

We want to extract data for the IT department

```
IT <- subset(data.dept == "IT")
```

Get the persons whose id is bigger than 3 and salary is more than 500

```
Info <- subset(data.salary >500 & id > 3)
```

Get people who joined after 2019

```
Join_n <- subset(data.as.Date(start_date) > as.Date ("2019-01-01"))
```

Let's take out all NA in the data set

```
Na.omit(data)
```

Write a new csv file that contains only the persons whose id is bigger than 3 and print new data

```
Write.csv(subset(data. Id >3)."new.csv")
```

```
New_data <- read.csv("new.csv")
```

```
Print(New_data)
```

What if I do not want the column X?

```
Write.csv(...."output.csv", row.names = False)
```

Exercise two

Now go to the built in data set and find an interesting dataset make that dataset a csv file

Find the standard deviation of all of the columns in that data set and export that information in a csv file

Let's look at the internal structure of the csv files that you saved

```
Str()
```

Something that might use strip.white