Reading and Writing .csv Files in RSudio

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Save a data frame to .csv file using the write.csv command

```r
data(mtcars)

# use the write.csv command followed by the file path (i.e. where you would like to save the file)
write.csv(mtcars, '/Users/majerus/Desktop/R/intro/data/cars.csv', row.names=T)

# remove the cars data from the workspace
rm(mtcars)
```

Load data from a .csv file using the read.csv command

```r
# use the read.csv command followed by the file path
# row.names=1 tells R that the data in the first column are the names of the rows
cars <- read.csv('/Users/majerus/Desktop/R/intro/data/cars.csv', row.names=1)
```

Loading multiple .csv files as separate data frames

```r
folder <- "/Users/majerus/Desktop/R/intro/data/"      # path to folder that holds multiple .csv files
file_list <- list.files(path=folder, pattern="*.csv") # create list of all .csv files in folder

# read in each .csv file in file_list and create a data frame with the same name as the .csv file
for (i in 1:length(file_list)){
  assign(file_list[i],
  read.csv(paste(folder, file_list[i], sep=''))
)}
```

Loading multiple .csv files into the same data frame

```r
folder <- "/Users/majerus/Desktop/R/intro/data/"      # path to folder that holds multiple .csv files
file_list <- list.files(path=folder, pattern="*.csv") # create list of all .csv files in folder

# read in each .csv file in file_list and rbind them into a data frame called data
data <-
  do.call("rbind",
         lapply(file_list,
               function(x)
               read.csv(paste(folder, x, sep=''),
               stringsAsFactors = FALSE)))
```

Load data from a Stata data file

```r
# use the read.dta command that is part of the foreign package
# type install.packages("foreign") to install the foreign package

library(foreign)
mydata <- read.dta("filepath/filename.dta")
```

Load data from an Excel data file

```r
# use the read.xlsx command that is part of the xlsx package
# type install.packages("xlsx") to install the xslx package

library(xlsx)
mydata <- read.xlsx("filepath/filename.xlsx", 2)
# the 2 tells R to read in the second page in the Excel workbook
```