Project 21

Natalie McGuckin

This project is supposed to be an easy modification of the project example, since it is almost time for Spring Break!

Note: Do not worry if some of the results have extra spaces. We can deal with that later!

1. Modify the NPS example to extract the city location for every National Park.

```
library(RCurl)
```

```
## Loading required package: bitops
```

```
library(XML)
myparks <- xpathSApply(htmlParse(getURL("https://www.nps.gov/findapark/index.htm")), "//*/div/select/op
mygoodparks <- myparks[(myparks != "cbpo")&(myparks != "foca")]
mycityextractor <- function(x) {xpathSApply(htmlParse(getURL( paste0("https://www.nps.gov/", x, "/index
                                        "//*/span[@itemprop='addressLocality']", xmlValue)}
myresults <- sapply( mygoodparks, mycityextractor )
head(myresults)
```

```
## $abli
## [1] "Hodgenville"
##
## $acad
## [1] "Bar Harbor"
##
## $adam
## [1] "Quincy"
##
## $afam
## [1] "Washington"
##
## $afbg
## [1] " New York"
##
## $agfo
## [1] "Harrison"
```

Explain solution: Used my city extractor to find cities.

2. Same question, for the state location for every National Park.

```
mystateextractor <- function(x) {xpathSApply(htmlParse(getURL( paste0("https://www.nps.gov/", x, "/inde
                                        "//*/span[@itemprop='addressRegion']", xmlValue)}
myresults <- sapply( mygoodparks, mycityextractor )
head(myresults)
```

```
## $abli
## [1] "Hodgenville"
##
## $acad
## [1] "Bar Harbor"
##
## $adam
```

```
## [1] "Quincy"
##
## $afam
## [1] "Washington"
##
## $afbg
## [1] " New York"
##
## $agfo
## [1] "Harrison"
```

Explain solution: Used the resources on piazza and from previous homework to solve solution. Used mystate extractor because we needed a state.

3. Same question, for the zip code for every National Park.

```
myzipcodeextractor <- function(x) {xpathSApply(htmlParse(getURL( paste0("https://www.nps.gov/", x, "/in
                                                "//*/span[@itemprop='postalCode']", xmlValue)}
myresults <- sapply( mygoodparks, myzipcodeextractor )
head(myresults)
```

```
## $abli
## [1] "42748     "
##
## $acad
## [1] "04609     "
##
## $adam
## [1] "02169     "
##
## $afam
## [1] "20024     "
##
## $afbg
## [1] "10005     "
##
## $agfo
## [1] "69346     "
```

Explain solution: Used zipcode extractor to get zip code