lab_exersice#1_Echaveria

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SCRAPING FOR PILLOWS

```
#install.packages("dplyr")
#install.packages("rvest")
#install.packages("polite")
#install.packages("httr")
library(dplyr)
## 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
##
library(rvest)
library(polite)
library(httr)
pillow_products <- data.frame()</pre>
pillowlink1 = "https://www.amazon.co.uk/s?k=pillows&crid=3CYPNR2J713S1&sprefix=pillows%2Caps%2C717&ref=
session1 <- bow(pillowlink1,</pre>
           user_agent = "Educational Purpose")
scrapeNodes <- function(selector){</pre>
scrape(session1) %>%
  html_nodes(selector) %>%
  html_text(trim = TRUE)
scrapedCategory <- "Pillow"</pre>
scrapedName <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedName <- scrapedName[1:45]</pre>
scrapedPrice <- scrapeNodes("span.a-offscreen")</pre>
scrapedPrice <- scrapedPrice[1:45]</pre>
```

```
scrapedRatings <- scrapeNodes("span.a-icon-alt")</pre>
scrapedRatings <- scrapedRatings[1:45]</pre>
scrapedReviews <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedReviews <- scrapedReviews[1:45]</pre>
pillow_products <- rbind(pillow_products, data.frame(category = scrapedCategory,name = scrapedName,
                     price = scrapedPrice,
                     ratings = scrapedRatings,
                     no_of_reviews = scrapedReviews))
#########
pillowlink2 = "https://www.amazon.co.uk/s?k=pillows&page=2&crid=3CYPNR2J713S1&qid=1710230571&sprefix=pi
session2 <- bow(pillowlink2,</pre>
           user_agent = "For Educational Purpose")
scrapedCategory2 <- "Pillow"</pre>
scrapedName2 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedName2 <- scrapedName2[1:45]</pre>
scrapedPrice2 <- scrapeNodes("span.a-offscreen")</pre>
scrapedPrice2 <- scrapedPrice2[1:45]</pre>
scrapedRatings2 <- scrapeNodes("span.a-icon-alt")</pre>
scrapedRatings2 <- scrapedRatings2[1:45]</pre>
scrapedReviews2 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedReviews2 <- scrapedReviews2[1:45]</pre>
pillow_products <- rbind(pillow_products, data.frame(category = scrapedCategory,name = scrapedName,
                     price = scrapedPrice,
                     ratings = scrapedRatings,
                     no of reviews = scrapedReviews))
#########
pillowlink3 = "https://www.amazon.co.uk/s?k=pillows&page=3&crid=3CYPNR2J713S1&qid=1710233098&sprefix=pi
session3 <- bow(pillowlink3,</pre>
           user_agent = "For Educational Purpose")
scrapedCategory3 <- "Pillow"</pre>
scrapedName3 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedName3 <- scrapedName3[1:45]</pre>
```

```
scrapedPrice3 <- scrapeNodes("span.a-offscreen")</pre>
scrapedPrice3 <- scrapedPrice3[1:45]</pre>
scrapedRatings3 <- scrapeNodes("span.a-icon-alt")</pre>
scrapedRatings3 <- scrapedRatings3[1:45]</pre>
scrapedReviews3 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedReviews3 <- scrapedReviews3[1:45]</pre>
pillow_products <- rbind(pillow_products, data.frame(category = scrapedCategory,name = scrapedName,
                     price = scrapedPrice,
                     ratings = scrapedRatings,
                     no_of_reviews = scrapedReviews))
pillow_products <- pillow_products[1:100,]</pre>
\#write.\,csv(pillow\_products,"pillow\_products.\,csv")
#View(pillow_products)
SCRAPING FOR SOCKS
library(dplyr)
library(rvest)
library(polite)
library(httr)
socks products <- data.frame()</pre>
sockslink1_1_1 = "https://www.amazon.co.uk/s?k=socks&crid=8MCF9HUOG7HO&qid=1710235362&sprefix=socks%2Ca
session4_4_4 <- bow(sockslink1_1_1,</pre>
           user_agent = "Education")
scrapeNodes <- function(selector){</pre>
scrape(session4_4_4) %>%
  html_nodes(selector) %>%
  html_text(trim = TRUE)
}
scrapedCategory4 <- "Socks"</pre>
scrapedsocksName <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedsocksName <- scrapedsocksName[1:45]</pre>
scrapedsocksPrice <- scrapeNodes("span.a-offscreen")</pre>
scrapedsocksPrice <- scrapedsocksPrice[1:45]</pre>
scrapedsocksRatings <- scrapeNodes("span.a-icon-alt")</pre>
scrapedsocksRatings <- scrapedsocksRatings[1:45]</pre>
scrapedsocksReviews <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedsocksReviews <- scrapedsocksReviews[1:45]</pre>
```

```
socks_products <- rbind(socks_products, data.frame(category = scrapedCategory4,name = scrapedsocksName,</pre>
                     price = scrapedsocksPrice,
                     ratings = scrapedsocksRatings,
                     no_of_reviews = scrapedsocksReviews))
##########
sockslink2_2_2 = "https://www.amazon.co.uk/s?k=socks&page=2&crid=8MCF9HU0G7H0&qid=1710235371&sprefix=so
session5_5_5 <- bow(sockslink2_2_2,</pre>
           user_agent = "Educational Purpose")
scrapeNodes <- function(selector){</pre>
scrape(session5_5_5) %>%
  html_nodes(selector) %>%
 html_text(trim = TRUE)
scrapedCategory5 <- "Socks"</pre>
scrapedsocksName2 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedsocksName2 <- scrapedsocksName2[1:45]</pre>
scrapedsocksPrice2 <- scrapeNodes("span.a-offscreen")</pre>
scrapedsocksPrice2 <- scrapedsocksPrice2[1:45]</pre>
scrapedsocksRatings2 <- scrapeNodes("span.a-icon-alt")</pre>
scrapedsocksRatings2 <- scrapedsocksRatings2[1:45]</pre>
scrapedsocksReviews2 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedsocksReviews2 <- scrapedsocksReviews2[1:45]</pre>
socks_products <- rbind(socks_products, data.frame(category = scrapedCategory5,name = scrapedsocksName2</pre>
                     price = scrapedsocksPrice2,
                     ratings = scrapedsocksRatings2,
                     no_of_reviews = scrapedsocksReviews2))
###################
sockslink3_3_3 = "https://www.amazon.co.uk/s?k=socks&page=3&crid=8MCF9HU0G7H0&qid=1710235444&sprefix=so
session6_6_6 <- bow(sockslink3_3_3,
           user_agent = "Educational Purpose")
scrapeNodes <- function(selector){</pre>
scrape(session6_6_6) %>%
```

```
html_nodes(selector) %>%
  html_text(trim = TRUE)
scrapedCategory6 <- "Socks"</pre>
scrapedsocksName3 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
scrapedsocksName3 <- scrapedsocksName3[1:45]</pre>
scrapedsocksPrice3 <- scrapeNodes("span.a-offscreen")</pre>
scrapedsocksPrice3 <- scrapedsocksPrice3[1:45]</pre>
scrapedsocksRatings3 <- scrapeNodes("span.a-icon-alt")</pre>
scrapedsocksRatings3 <- scrapedsocksRatings3[1:45]</pre>
scrapedsocksReviews3 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
scrapedsocksReviews3 <- scrapedsocksReviews3[1:45]</pre>
socks_products <- rbind(socks_products, data.frame(category = scrapedCategory5,name = scrapedsocksName2
                     price = scrapedsocksPrice2,
                     ratings = scrapedsocksRatings2,
                     no_of_reviews = scrapedsocksReviews2))
socks_products <- socks_products[1:100,]</pre>
#write.csv(socks_products, "socks_products.csv")
#View(socks_products)
MERGING TWO PRODUCTS
scraped_products <- rbind(pillow_products, socks_products)</pre>
#write.csv(scraped_products, "byCategory.csv")
#View(scraped products)
10 PRODUCTS
product1
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product1 = data.frame()
scrapedCategory <- "Pillow"</pre>
###
  link = "https://www.amazon.co.uk/product-reviews/B01L97Z3V8/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
               user_agent = "For Educational Purpose")
```

```
scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html nodes(selector) %>%
        html text(trim = TRUE)
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product1 <- rbind(product1, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer,
                            review = scrapedReview,
                            date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
###########
  link2 = "https://www.amazon.co.uk/product-reviews/B01L97Z3V8/ref=cm cr getr d paging btm next 2?ie=UT.
  sessionProd2 <- bow(link2,</pre>
                user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
```

```
scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product1 <- rbind(product1, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                          ratings = scrapedprodRating2))
      Sys.sleep(5)
#########
      link3 = "https://www.amazon.co.uk/product-reviews/B01L97Z3V8/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product1 <- rbind(product1, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                          ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product1)
#write.csv(product1, "product1.csv")
product2
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product2 = data.frame()
```

```
scrapedCategory <- "Pillow"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B01FMHF1EA/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product2 <- rbind(product2, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer,
                           review = scrapedReview,
                           date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
#########
      link2 = "https://www.amazon.co.uk/product-reviews/B01FMHF1EA/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
                user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
```

```
scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product2 <- rbind(product2, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                          ratings = scrapedprodRating2))
      Sys.sleep(5)
#########
      link3 = "https://www.amazon.co.uk/product-reviews/B01FMHF1EA/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product2 <- rbind(product2, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                          ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product2)
#write.csv(product2, "product2.csv")
```

product3

```
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product3 = data.frame()
scrapedCategory <- "Pillow"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B016RAAUEM/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product3 <- rbind(product3, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer,
                            review = scrapedReview,
                           date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
##########
      link2 = "https://www.amazon.co.uk/product-reviews/B016RAAUEM/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
```

```
user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product3 <- rbind(product3, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer2,
                            review = scrapedReview2,
                            date = scrapedDate2,
                           ratings = scrapedprodRating2))
      Sys.sleep(5)
#########
      link3 = "https://www.amazon.co.uk/product-reviews/B016RAAUEM/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product3 <- rbind(product3, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer3,
                            review = scrapedReview3,
                            date = scrapedDate3,
```

```
ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product3)
#write.csv(product3, "product3.csv")
product4
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product4 = data.frame()
scrapedCategory <- "Pillow"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B01CR9IRWY/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
               user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      }
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product4 <- rbind(product4, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer,
                            review = scrapedReview,
                            date = scrapedDate,
```

```
ratings = scrapedprodRating))
      Sys.sleep(5)
#########
      link2 = "https://www.amazon.co.uk/product-reviews/B01CR9IRWY/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product4 <- rbind(product4, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                           ratings = scrapedprodRating2))
      Sys.sleep(5)
##########
      link3 = "https://www.amazon.co.uk/product-reviews/B01CR9IRWY/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
```

```
scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product4 <- rbind(product4, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer3,
                            review = scrapedReview3,
                            date = scrapedDate3,
                           ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product4)
#write.csv(product4, "product4.csv")
product5
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product5 = data.frame()
scrapedCategory <- "Pillows"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B01G51NIJ2/ref=cm cr arp d viewopt sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      }
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
```

```
scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product5 <- rbind(product5, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer,
                           review = scrapedReview,
                           date = scrapedDate,
                          ratings = scrapedprodRating))
      Sys.sleep(5)
##########
      link2 = "https://www.amazon.co.uk/product-reviews/B01G51NIJ2/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product5 <- rbind(product5, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                          ratings = scrapedprodRating2))
      Sys.sleep(5)
##########
      link3 = "https://www.amazon.co.uk/product-reviews/B01G51NIJ2/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
```

```
scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product5 <- rbind(product5, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer3,
                            review = scrapedReview3,
                            date = scrapedDate3,
                           ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product5)
#write.csv(product5, "product5.csv")
product6
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product6 = data.frame()
scrapedCategory <- "Socks"</pre>
#########
  link = "https://www.amazon.co.uk/product-reviews/B07FCCT6G6/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      }
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
```

```
scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product6 <- rbind(product6, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer,
                           review = scrapedReview,
                           date = scrapedDate,
                          ratings = scrapedprodRating))
##########
      link2 = "https://www.amazon.co.uk/product-reviews/B07FCCT6G6/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product6 <- rbind(product6, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                          ratings = scrapedprodRating2))
#########
      link3 = "https://www.amazon.co.uk/product-reviews/B07FCCT6G6/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
```

scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>

scrapedReview <- scrapedReview[1:10]</pre>

```
scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product6 <- rbind(product6, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                           ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product6)
#write.csv(product6, "product6.csv")
product7
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product7 = data.frame()
scrapedCategory <- "Socks"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B0150BE59U/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      }
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
```

```
scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product7 <- rbind(product7, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer,
                            review = scrapedReview,
                           date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
#########
      link2 = "https://www.amazon.co.uk/product-reviews/B0150BE59U/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product7 <- rbind(product7, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer2,
                            review = scrapedReview2,
                            date = scrapedDate2,
                           ratings = scrapedprodRating2))
      Sys.sleep(5)
#########
```

```
link3 = "https://www.amazon.co.uk/product-reviews/B0150BE59U/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product7 <- rbind(product7, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                          ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product7)
#write.csv(product7, "product7.csv")
product8
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product8 = data.frame()
scrapedCategory <- "Socks"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B099FJCQSF/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
               user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
```

```
html_text(trim = TRUE)
      }
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product8 <- rbind(product8, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer,
                            review = scrapedReview,
                            date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
#########
      link2 = "https://www.amazon.co.uk/product-reviews/B099FJCQSF/ref=cm_cr_arp_d_paging_btm_next_2?ie
  sessionProd2 <- bow(link2,</pre>
                user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product8 <- rbind(product8, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
```

```
reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                            date = scrapedDate2,
                           ratings = scrapedprodRating2))
      Sys.sleep(5)
##########
      link3 = "https://www.amazon.co.uk/product-reviews/B099FJCQSF/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
                user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product8 <- rbind(product8, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                           ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product8)
#write.csv(product8, "product8.csv")
product9
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
product9 = data.frame()
scrapedCategory <- "Socks"</pre>
##########
```

```
link = "https://www.amazon.co.uk/product-reviews/B07F2N8DF5/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter.
      sessionProd1 <- bow(link,</pre>
               user agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html nodes(selector) %>%
       html_text(trim = TRUE)
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product9 <- rbind(product9, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                            reviewer = scrapedReviewer,
                           review = scrapedReview,
                            date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
##########
      link2 = "https://www.amazon.co.uk/product-reviews/B07F2N8DF5/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
      scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
```

```
scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product9 <- rbind(product9, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                          ratings = scrapedprodRating2))
      Sys.sleep(5)
##########
      link3 = "https://www.amazon.co.uk/product-reviews/B07F2N8DF5/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product9 <- rbind(product9, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                          ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product9)
#write.csv(product9, "product9.csv")
product10
library(dplyr)
library(rvest)
library(polite)
library(httr)
library(selectr)
```

```
product10 = data.frame()
scrapedCategory <- "Socks"</pre>
##########
  link = "https://www.amazon.co.uk/product-reviews/B07R1ZCKVZ/ref=cm_cr_arp_d_viewopt_sr?ie=UTF8&filter
      sessionProd1 <- bow(link,</pre>
                user_agent = "For Educational Purpose")
      scrapeNodes <- function(selector){</pre>
      scrape(sessionProd1) %>%
        html_nodes(selector) %>%
        html_text(trim = TRUE)
      scrapedprodName <- scrapeNodes("h1.a-size-large.a-text-ellipsis")</pre>
      scrapedReviewer <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer <- scrapedReviewer[1:10]</pre>
      scrapedReview <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview <- scrapedReview[1:10]</pre>
      scrapedDate <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate <- scrapedDate[1:10]</pre>
      scrapedprodRating <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating <- scrapedprodRating[1:10]</pre>
      product10 <- rbind(product10, data.frame(category = scrapedCategory,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer,
                            review = scrapedReview,
                            date = scrapedDate,
                           ratings = scrapedprodRating))
      Sys.sleep(5)
###########
      link2 = "https://www.amazon.co.uk/product-reviews/B07R1ZCKVZ/ref=cm_cr_getr_d_paging_btm_next_2?i
  sessionProd2 <- bow(link2,</pre>
                user_agent = "For Educational Purpose")
      scrapedReviewer2 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer2 <- scrapedReviewer2[1:10]</pre>
```

```
scrapedReview2 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview2 <- scrapedReview2[1:10]</pre>
      scrapedDate2 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate2 <- scrapedDate2[1:10]</pre>
      scrapedprodRating2 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating2 <- scrapedprodRating2[1:10]</pre>
      product10 <- rbind(product10, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer2,
                           review = scrapedReview2,
                           date = scrapedDate2,
                           ratings = scrapedprodRating2))
      Sys.sleep(5)
#########
      link3 = "https://www.amazon.co.uk/product-reviews/B07R1ZCKVZ/ref=cm_cr_getr_d_paging_btm_next_3?i
  sessionProd3 <- bow(link3,</pre>
               user_agent = "For Educational Purpose")
      scrapedReviewer3 <- scrapeNodes("span.a-profile-name")</pre>
      scrapedReviewer3 <- scrapedReviewer3[1:10]</pre>
      scrapedReview3 <- scrapeNodes("span.a-size-base.review-text.review-text-content")</pre>
      scrapedReview3 <- scrapedReview3[1:10]</pre>
      scrapedDate3 <- scrapeNodes("span.a-size-base.a-color-secondary.review-date")</pre>
      scrapedDate3 <- scrapedDate3[1:10]</pre>
      scrapedprodRating3 <- scrapeNodes("span.a-icon-alt")</pre>
      scrapedprodRating3 <- scrapedprodRating3[1:10]</pre>
      product10 <- rbind(product10, data.frame(category = scrapedCategory ,name = scrapedprodName,</pre>
                           reviewer = scrapedReviewer3,
                           review = scrapedReview3,
                           date = scrapedDate3,
                          ratings = scrapedprodRating3))
      Sys.sleep(5)
#View(product10)
#write.csv(product10, "product10.csv")
```

```
All_Reviews
All_Reviews <- rbind(All_Reviews)
#View(All_Reviews)
#write.csv(All_Reviews, "All Reviews.csv")</pre>
```