Lab Exercise 1

Alfe Kevin P. Gallo

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```
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)
library(selectr)
library(xml2)
## 1st product tshirt
product = data.frame()
url<-"https://www.amazon.com.be/s?k=tshirt+men&crid=2GH9JI5MZELHZ&sprefix=tshi%2Caps%2C277&ref=nb_sb_ss
url2<-"https://www.amazon.com.be/-/en/s?k=tshirt+men&page=2&crid=2GH9JI5MZELHZ&qid=1707956978&sprefix=t
#url 1
session<-bow(url,user_agent ="For Educational purposes only")</pre>
## <polite session> https://www.amazon.com.be/s?k=tshirt+men&crid=2GH9JI5MZELHZ&sprefix=tshi%2Caps%2C27
##
       User-agent: For Educational purposes only
##
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
     html_nodes(selector) %>%
     html_text(trim = TRUE)
}
```

```
productName <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-2")</pre>
productName <- productName[1:31]</pre>
productPrice <- scrapeNodes("span.a-price")</pre>
productPrice <-productPrice[1:31]</pre>
productRatings <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatings <-productRatings[1:31]</pre>
productTNRV <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRV <- productTNRV[1:31]</pre>
  product <- rbind(product, data.frame(Product_Name = productName,</pre>
                        Price = productPrice,
                        Ratings = productRatings,
                        Total_Number_of_Reviews = productTNRV))
#url 2
product2 = data.frame()
session2<-bow(url2,user_agent ="For Educational purposes only")</pre>
session2
## <polite session> https://www.amazon.com.be/-/en/s?k=tshirt+men&page=2&crid=2GH9JI5MZELHZ&qid=1707956
##
       User-agent: For Educational purposes only
       robots.txt: 104 rules are defined for 4 bots
##
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
##
scrapeNodes <- function(selector){</pre>
    scrape(session2) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
productName2 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-2")</pre>
productName2 <- productName2[1:26]</pre>
productPrice2 <- scrapeNodes("span.a-price")</pre>
productPrice2 <-productPrice2[1:26]</pre>
productRatings2 <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatings2 <-productRatings2[1:26]</pre>
productTNRV2 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRV2 <- productTNRV2[1:26]</pre>
  product2 <- rbind(product2, data.frame(Product_Name = productName2,</pre>
                       Price = productPrice2,
                        Ratings = productRatings2,
                        Total Number of Reviews = productTNRV2))
#url 3
```

```
url3<-"https://www.amazon.com.be/-/en/s?k=tshirt+men&page=3&crid=2GH9JI5MZELHZ&qid=1707957314&sprefix=t
product3 = data.frame()
session3<-bow(url3,user_agent ="For Educational purposes only")</pre>
## <polite session> https://www.amazon.com.be/-/en/s?k=tshirt+men&page=3&crid=2GH9JI5MZELHZ&qid=1707957
       User-agent: For Educational purposes only
##
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session3) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
productName3 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-2")</pre>
productName3 <- productName3[1:18]</pre>
productPrice3 <- scrapeNodes("span.a-price")</pre>
productPrice3 <-productPrice3[1:18]</pre>
productRatings3 <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatings3 <-productRatings3[1:18]</pre>
productTNRV3 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRV3 <- productTNRV3[1:18]</pre>
  product3 <- rbind(product3, data.frame(Product_Name = productName3,</pre>
                       Price = productPrice3,
                       Ratings = productRatings3,
                       Total_Number_of_Reviews = productTNRV3))
#url 4
url4<-"https://www.amazon.com.be/-/en/s?k=tshirt+men&page=4&crid=1GGHABKSR7J7M&qid=1707963509&sprefix=%
product4 = data.frame()
session4<-bow(url4,user_agent ="For Educational purposes only")</pre>
## <polite session> https://www.amazon.com.be/-/en/s?k=tshirt+men&page=4&crid=1GGHABKSR7J7M&qid=1707963
##
       User-agent: For Educational purposes only
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session4) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
```

```
productName4 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-2")</pre>
productName4 <- productName4[1:15]</pre>
productPrice4 <- scrapeNodes("span.a-price")</pre>
productPrice4 <-productPrice4[1:15]</pre>
productRatings4 <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatings4 <-productRatings4[1:15]</pre>
productTNRV4 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRV4 <- productTNRV4[1:15]</pre>
  product4 <- rbind(product4, data.frame(Product_Name = productName4,</pre>
                       Price = productPrice4,
                       Ratings = productRatings4,
                       Total_Number_of_Reviews = productTNRV4))
#url 5
url5<-"https://www.amazon.com.be/-/en/s?k=tshirt+men&page=6&crid=1GGHABKSR7J7M&qid=1707964011&sprefix=%
product6 = data.frame()
session6<-bow(url5,user_agent ="For Educational purposes only")</pre>
## <polite session> https://www.amazon.com.be/-/en/s?k=tshirt+men&page=6&crid=1GGHABKSR7J7M&qid=1707964
       User-agent: For Educational purposes only
##
##
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session6) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
productName6 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-2")</pre>
productName6 <- productName6[1:10]</pre>
productPrice6 <- scrapeNodes("span.a-price")</pre>
productPrice6 <-productPrice6[1:10]</pre>
productRatings6 <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatings6 <-productRatings6[1:10]</pre>
productTNRV6 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRV6 <- productTNRV6[1:10]</pre>
  product6 <- rbind(product6, data.frame(Product_Name = productName6,</pre>
                       Price = productPrice6,
                       Ratings = productRatings6,
```

```
finalproducts <-rbind(product, product2, product3, product4, product6)</pre>
 finalproducts
##
## 1
                                                                Lot de 3 Tee Shirts Homme - 60% Coton 40%
## 2
                                                                                          Lot de 3 t-shirts
## 3
## 4
                                                                              Lot de 3 Débardeurs Homme -
## 5
## 6
## 7
## 8
## 9
## 10
## 11
                                                                   Slim Fit Henley shirt, Coton Musclé t-sh
## 12
## 13
## 14
## 15
## 16
## 17
## 18
## 19
## 20
## 21
                                                                    Lot de 2 Tee Shirts Homme - 100% Polye
## 22
## 23
## 24
                           Lot de 4 Tee Shirts Homme - 60% Coton 40% Polyester - Manches Courtes - Col R
## 25
## 26
## 27
## 28
## 29
## 30
## 31
## 32
                                                                                                    Men's Q
## 33
                                                                                    T-shirts à manches lon
## 34
                                                                                  T-shirts à manches longu
## 35
## 36
## 37
## 38
## 39
## 40
                                                                  Men's Short Sleeve Shirt Capybara Graphi
```

Total_Number_of_Reviews = productTNRV6))

Set of 4 Men's T-Shirts - 60% Cotton

Men's L

Men's Intimat

Générique Metallica Master of Puppets

41

42

43 ## 44

45

	46	## 46	##
Me	47	## 47	##
	48	## 48	##
	49	## 49	##
	50	## 50	##
	51	## 51	##
	52	## 52	##
	53	## 53	##
T-Shirts Mascu	54	## 54	##
T-shirts à manches long	55	## 55	##
	56	## 56	##
	57	## 57	##
Men's Q	58	## 58	##
T-shirts à manches long	59	## 59	##
T-shirts à manches longu	60	## 60	##
	61	## 61	##
	62	## 62	##
	63	## 63	##
	64	## 64	##
	65	## 65	##
	66	## 66	##
Men's Guns N' Roses Bourl	67	## 67	##
	68	## 68	##
	69	## 69	##
	70	## 70	##
		## 71	
		## 72	
		## 73	
		## 74	
		## 75	
Men's Q		## 76	
T-shirts à manches long		## 77	
T-shirts à manches longue		## 78	
		## 79	
		## 80	
		## 81	
		## 82	
		## 83	
		## 84	
		## 85	
		## 86	
		## 87	
		## 88	
		## 89	
Set o		## 90	
Men's Q		## 91	
T-shirts à manches long		## 92	
T-shirts à manches longue		## 93	
	Q/I	## 9/	##

6

0

94 ## 95 ## 96

97 ## 98 ## 99

```
## 100 Disney The Nightmare Before Christmas Jack Current Mood T-Shirt for Men | Official Product | S-X
##
                                           Total_Number_of_Reviews
               Price
                                 Ratings
## 1
       39,95 €39,95€ 4,3 étoile(s) sur 5
                                                   Chercher plutôt
## 2
       29,95 €29,95€ 4,3 étoile(s) sur 5
                                                        tshirt men
## 3
      29,95 €29,95€ 4,5 étoile(s) sur 5
## 4
      29,95 €29,95€ 4,5 étoile(s) sur 5
                                                                695
      12,90 €12,90€ 4,5 étoile(s) sur 5
                                                                77
      16,92 €16,92€ 4,5 étoile(s) sur 5
## 6
                                                                 9
## 7
      17,49 €17,49€ 4,5 étoile(s) sur 5
                                                            43 060
## 8
      18,20 €18,20€ 4,4 étoile(s) sur 5
                                                             36 963
       22,18 €22,18€ 4,5 étoile(s) sur 5 Une autre façon d'acheter
## 9
## 10 22,92 €22,92€ 4,6 étoile(s) sur 5
                                                                129
## 11 39,41 €39,41€ 4,4 étoile(s) sur 5
                                                             2 144
## 12 29,95 €29,95€ 4,6 étoile(s) sur 5
                                                             5 528
## 13 52,95 €52,95€ 4,5 étoile(s) sur 5
                                                            22 565
## 14
      20,12 €20,12€ 4,4 étoile(s) sur 5
                                                                49
## 15 25,00 €25,00€ 4,5 étoile(s) sur 5
                                                            22 968
## 16 23,99 €23,99€ 4,4 étoile(s) sur 5
                                                                 6
## 17 45,82 €45,82€ 4,4 étoile(s) sur 5
                                                            30 645
## 18 17,99 €17,99€ 4,3 étoile(s) sur 5
                                                                48
## 19 19,25 €19,25€ 4,4 étoile(s) sur 5
                                                             6 737
## 20 30,00 €30,00€ 4,5 étoile(s) sur 5
                                                                95
     19,90 €19,90€ 4,3 étoile(s) sur 5
                                                               757
## 21
## 22
      20,95 €20,95€ 4,4 étoile(s) sur 5
                                                               150
      35,00 €35,00€ 4,4 étoile(s) sur 5
## 23
                                                             2 159
      18,90 €18,90€ 4,4 étoile(s) sur 5
                                                                 7
## 25 24,99 €24,99€ 4,3 étoile(s) sur 5
                                                                35
## 26 21,48 €21,48€ 4,5 étoile(s) sur 5
                                                                53
## 27 24,99 €24,99€ 4,5 étoile(s) sur 5
                                                                43
## 28 24,95 €24,95€ 4,6 étoile(s) sur 5
                                                             4 004
## 29
      12,55 €12,55€ 4,5 étoile(s) sur 5
                                                                399
## 30
      19,95 €19,95€ 4,5 étoile(s) sur 5
                                                                77
## 31
      29,95 €29,95€ 4,3 étoile(s) sur 5
                                                            17 789
## 32
        €27.98€27.98 4.3 out of 5 stars
                                                                293
## 33
        €42.13€42.13 4.6 out of 5 stars
                                                                612
## 34
        €30.43€30.43 4.3 out of 5 stars
                                                                122
## 35
        €25.74€25.74 4.5 out of 5 stars
                                                            14,121
## 36
        €18.69€18.69 4.3 out of 5 stars
                                                                39
## 37
        €25.30€25.30 4.3 out of 5 stars
                                                                26
## 38
        €11.88€11.88 4.6 out of 5 stars
                                                               757
        €10.07€10.07 4.4 out of 5 stars
## 39
                                                                99
## 40
        €19.90€19.90 4.4 out of 5 stars
                                                               912
## 41
        €44.95€44.95 4.4 out of 5 stars
                                                               119
## 42
        €23.98€23.98 4.6 out of 5 stars
                                                             9,279
## 43
        €21.48€21.48 4.3 out of 5 stars
                                                             1,140
## 44
        €24.99€24.99 4.4 out of 5 stars
                                                             13,755
## 45
        €24.15€24.15 4.6 out of 5 stars
                                                Another way to buy
## 46
        €36.19€36.19 4.4 out of 5 stars
                                                                628
## 47
        €18.81€18.81 4.6 out of 5 stars
                                                              1,741
## 48
        €25.20€25.20 4.5 out of 5 stars
                                                             3,749
## 49
        €21.11€21.11 4.6 out of 5 stars
                                                             1,233
## 50
        €28.85€28.85 4.4 out of 5 stars
                                                                55
        €40.00€40.00 4.4 out of 5 stars
## 51
                                                                 2
## 52
        €17.13€17.13 4.3 out of 5 stars
                                                               165
```

```
500
## 53
        €24.99€24.99 4.7 out of 5 stars
## 54
        €18.27€18.27
                      4.4 out of 5 stars
                                                                   7
        €19.49€19.49
                                                               1,857
## 55
                      4.4 out of 5 stars
                      4.4 out of 5 stars
## 56
        €24.57€24.57
                                                  Another way to buy
## 57
        €25.74€25.74
                      4.5 out of 5 stars
                                                                  77
## 58
        €27.98€27.98
                      4.3 out of 5 stars
                                                                  293
## 59
        €42.13€42.13
                      4.6 out of 5 stars
                                                                  186
## 60
                      4.4 out of 5 stars
        €30.43€30.43
                                                               2,575
##
  61
        €25.74€25.74
                      4.4 out of 5 stars
                                                                  242
## 62
                      4.5 out of 5 stars
          €8.99€8.99
                                                                    1
## 63
        €22.90€22.90
                      4.5 out of 5 stars
                                                                  823
                                                                    2
## 64
        €17.82€17.82
                      4.4 out of 5 stars
##
  65
        €21.30€21.30
                      4.4 out of 5 stars
                                                                  24
## 66
        €21.77€21.77
                      4.6 out of 5 stars
                                                                    6
## 67
        €13.49€13.49
                      4.5 out of 5 stars
                                                               7,697
## 68
        €18.74€18.74
                      4.7 out of 5 stars
                                                                  144
##
  69
        €21.10€21.10
                      4.6 out of 5 stars
                                                                  130
##
  70
        €21.80€21.80
                      4.6 out of 5 stars
                                                              13,217
## 71
        €18.48€18.48 4.3 out of 5 stars
                                                              10,748
## 72
        €21.76€21.76
                      4.3 out of 5 stars
                                                               1,136
## 73
        €16.00€16.00
                      4.6 out of 5 stars
                                                                    1
## 74
        €29.99€29.99
                      4.5 out of 5 stars
                                                                   1
## 75
        €34.95€34.95
                      4.5 out of 5 stars
                                                                  61
## 76
        €27.98€27.98
                      4.3 out of 5 stars
                                                                  293
## 77
                      4.4 out of 5 stars
                                                                  20
        €42.13€42.13
##
  78
        €30.43€30.43
                      4.5 out of 5 stars
                                                                  70
## 79
        €25.74€25.74
                      4.4 out of 5 stars
                                                               4,075
##
  80
                      4.3 out of 5 stars
                                                              14,270
        €23.45€23.45
## 81
        €56.93€56.93
                      4.5 out of 5 stars
                                                               3,747
## 82
        €18.72€18.72
                      4.4 out of 5 stars
                                                                  868
## 83
        €32.22€32.22
                      4.3 out of 5 stars
                                                                    2
##
  84
        €24.84€24.84
                      4.5 out of 5 stars
                                                                    6
                                                                  48
## 85
        €43.68€43.68
                      4.4 out of 5 stars
## 86
        €24.23€24.23
                      4.6 out of 5 stars
                                                                  293
                                                                    2
## 87
        €14.56€14.56
                      4.6 out of 5 stars
                                                               1,416
## 88
        €17.14€17.14
                      4.4 out of 5 stars
## 89
        €20.00€20.00
                      4.5 out of 5 stars
                                                               2,144
## 90
        €34.95€34.95
                      4.6 out of 5 stars
                                                                    1
## 91
        €27.98€27.98
                      4.3 out of 5 stars
                                                                  293
## 92
        €42.13€42.13
                      4.4 out of 5 stars
                                                                  31
## 93
        €30.43€30.43
                      4.5 out of 5 stars
                                                               1,033
## 94
        €25.74€25.74 4.5 out of 5 stars
                                                               2,706
  95
                      4.6 out of 5 stars
##
        €31.15€31.15
                                                                    3
## 96
                                                               1,327
        €19.95€19.95
                      4.4 out of 5 stars
## 97
                      4.4 out of 5 stars
        €34.79€34.79
                                                                    1
                                                                  27
## 98
                      4.6 out of 5 stars
        €18.25€18.25
## 99
        €23.40€23.40 4.6 out of 5 stars
                                                                  111
## 100
        €19.95€19.95 4.6 out of 5 stars
                                                                  14
#2nd Product Phones
library(dplyr)
library(rvest)
library(polite)
library(httr)
```

```
library(selectr)
library(xm12)
#link 1
urlp<-"https://www.amazon.com.be/s?k=phones&crid=2TJEA216QCAPX&sprefix=phon%2Caps%2C435&ref=nb_sb_noss_
productp = data.frame()
sessionp<-bow(urlp,user_agent ="For Educational purposes only")</pre>
sessionp
## <polite session> https://www.amazon.com.be/s?k=phones&crid=2TJEA216QCAPX&sprefix=phon%2Caps%2C435&re
       User-agent: For Educational purposes only
       robots.txt: 104 rules are defined for 4 bots
##
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(sessionp) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
productNamep <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
productNamep <- productNamep[1:25]</pre>
productPricep <- scrapeNodes("span.a-price")</pre>
productPricep <-productPricep[1:25]</pre>
productRatingp <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatingp <-productRatingp[1:25]</pre>
productTNRVp <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRVp <- productTNRV4[1:25]</pre>
  productp <- rbind(productp, data.frame(Product_Name = productNamep,</pre>
                       Price = productPricep,
                       Ratings = productRatingp,
                       Total_Number_of_Reviews = productTNRVp))
#link 2
urlp2<-"https://www.amazon.com.be/-/en/s?k=phones&page=2&crid=2TJEA216QCAPX&qid=1708165997&sprefix=phon
productp2 = data.frame()
sessionp2<-bow(urlp2,user_agent ="For Educational purposes only")</pre>
sessionp2
## <polite session> https://www.amazon.com.be/-/en/s?k=phones&page=2&crid=2TJEA216QCAPX&qid=1708165997&
       User-agent: For Educational purposes only
```

```
##
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(sessionp2) %>%
      html nodes(selector) %>%
      html_text(trim = TRUE)
}
productNamep2 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
productNamep2 <- productNamep2[1:27]</pre>
productPricep2 <- scrapeNodes("span.a-price")</pre>
productPricep2 <-productPricep2[1:27]</pre>
productRatingp2 <- scrapeNodes("i.a-icon.a-icon-star-small.a-star-small-4-5.aok-align-bottom")</pre>
productRatingp2 <-productRatingp2[1:27]</pre>
productTNRVp2 <- scrapeNodes("span.a-size-base.s-underline-text")</pre>
productTNRVp2 <- productTNRVp2[1:27]</pre>
  productp2 <- rbind(productp2, data.frame(Product_Name = productNamep2,</pre>
                       Price = productPricep2,
                       Ratings = productRatingp2,
                       Total_Number_of_Reviews = productTNRVp2))
#link 3
urlp3<-"https://www.amazon.com.be/-/en/s?k=phones&page=3&crid=2TJEA216QCAPX&qid=1708167598&sprefix=phon
productp3 = data.frame()
sessionp3<-bow(urlp3,user_agent ="For Educational purposes only")</pre>
sessionp3
## <polite session> https://www.amazon.com.be/-/en/s?k=phones&page=3&crid=2TJEA216QCAPX&qid=1708167598&
##
       User-agent: For Educational purposes only
##
       robots.txt: 104 rules are defined for 4 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(sessionp3) %>%
      html_nodes(selector) %>%
      html text(trim = TRUE)
}
productNamep3 <- scrapeNodes("h2.a-size-mini.a-spacing-none.a-color-base.s-line-clamp-4")</pre>
productNamep3 <- productNamep3[1:58]</pre>
productPricep3 <- scrapeNodes("span.a-price")</pre>
productPricep3 <-productPricep3[1:58]</pre>
```

##

34

35 ## 36 ## 37 ## 38

```
## 1
                                            ARZOPA Portable Monitor, S1 Table 15.6'' 1080P FHD Laptop M
## 2
                       NEW'C Lot de 3, Verre Trempé pour iPhone 14, 13, 13 Pro (6,1"), Film Protection
                  Lot de 2 chargeurs rapides pour Samsung 25 W USB C Chargeur pour Phone 12 Pro Max 11
## 3
## 4
                                                       Dexnor Coque intégrale pour iPhone 11 6,1" 360°
## 5
                         McMgc i15Pro Max Téléphone Portable Débloqué, 6,3 Pouces Waterdrop Android 9.0
## 6
                 Zawaer Babyphone Caméra, Moniteur Vidéo pour Bébé Babyphone, Babyphone Sans fil, Babyp
## 7
                                                         Samsung Galaxy A14 - Smartphone Android, écran
## 8
                            Nothing Phone (2) - 256 Go + 12 Go Ram, Glyph Interface, Nothing OS 2.0, Do
## 9
## 10
## 11
## 12
## 13
                                   Xiaomi Poco C65 Smartphone 8 + 256 Go No Contract Cell Phone 6,74" É
## 14
## 15
## 16
## 17
                              Samsung Galaxy A23 5G, Smartphone Android 12, écran Infinity-V 6,6"1, 4 G
## 18
                                                            NeoMan Reno4 Smartphone, écran 5.5", 1 Go A
## 19
## 20
## 21
## 22
                                          Kziwii 3 pièces Verre trempé Compatible avec ASUS ROG Phone 2
                                smartect Verre Trempé [3 Pièces, Clear] pour Telekom T Phone 5G, Protec
## 23
## 24
          Avantree CK11 Kit mains libres Bluetooth 5.0 pour voiture, haut-parleur de qualité, support S
## 25
              Motorola Moto G54 G5 Smartphone (écran FHD+ 6,5", double caméra de 50 MP, 8/256 Go, 5000
                      NEW'C Pack of 3 Tempered Glass Screen Protector for iPhone 14, 13, 13 Pro (6.1 In
## 26
## 27
                                           2 Pack Fast Charger for Samsung 25W USB C Charger for Phone
## 28
                                              Dexnor iPhone 11 Case 6.1 inch Full Body 360 Degree Heavy
## 29
## 30
                                                                    artfone 4G Senior Cell Phone, 4G Big
## 31
                                                                                          Nokia 3310 2G
## 32
              Ulefone ARMOR 21 Android 13 Unbreakable Smartphone Infinite Halo, 122dB Speaker, 9600mAh
## 33
```

Doro - 68

Samsung Galaxy A23 5G Mobile Phone Android

	39	Xiaomi Redmi 9A Smartphone 2GB RAM 32GB ROM Mobile Phone, 6.53 Inch HD Screen M
##	40	The Phone B
##	41	USHINING GSM Cell
##	42	Ulefone Armor 22 Unbreakable Smartphone, 64MP+64MP Camera (Night Vision), 16GB+256GB, 66
##	43	TOKVIA T221 Mobile Phone for People SOS Button Button, Mobile Phones for the 1
	44	
	45	Doro 6040 ·
	46	Kziwii 3-Piece Tempered Glass Screen Protector Film Compatible
	47	smartect Tempered Glass [3 Pieces, Clear] for Telekom T Phone 5G, H
	48	Avantree CK11 Bluetooth 5.0 Handsfree Car Kit Q
	49	deleyCON CTIA 4 Pin TRRS Microphone Extension
	50	GSM Set
	51	I14 Pro Max Smartphone for Android
	52	
	53	NEW'C Pack of 3 Tempered Glass Screen Protector for iPhone 14, 13, 13 Pro (6.1 In
	54	2 Pack Fast Charger for Samsung 25W USB C Charger for Phone
	55	Dexnor iPhone 11 Case 6.1 inch Full Body 360 Degree Heavy
	56	Discholar DV0000 Habrachall Dantall G. 1. 0000 4000 05000 4. 1. 1. 10 W. 3. 1. 2.
	57	Blackview BV8900 Unbreakable Portable Smartphone 2023, 16GB+256GB Android 13 Unlocked Phone 4G
	58	JOYIN Jouet pour bébé de 6 à 12 mois - Téléphone portable avec 4 modes de jeu et plus de 50
	59	Mini Phone 1.5 Inch 3G GSM Cell
	60	Cheap SIM Free Unlocked Cell Phone:
	61	
	62	Oqtiq Car Phone Holder, Car Phone Holder with Suction Cup, Telefoonhouder Auto, 3 in 1 Car
	63	
	64	
	65 66	DODGEE G110 (2022) Halia G00 22GD 25GGD Dathania 10200mAb / GGU Dunnal 4G Hal
	66 67	DOOGEE S110 (2023), Helio G99 22GB + 256GB, Batteria 10800mAh / 66W, Rugged 4G Unlo
	67 68	Blackview BV6200 Pro Heavy Duty Phone, 13000mAh Battery, 8GB + 128GB (1T Extension),
		Congues Colour A14 Android Countrhone & & In
	69 70	Samsung Galaxy A14 Android Smartphone, 6.6 In Doro 6880 - 4G S
	71	SOYES S23 Pro Mini Smartphone 3.0 Inch G1:
	72	USHINING GSM Unlocked Senior Cell Phone, Senior Cla
	73	Kziwii 3-Piece Tempered Glass Screen Protector Film Compatible
	74	smartect Tempered Glass [3 Pieces, Clear] for Telekom T Phone 5G, H
	75	Avantree CK11 Bluetooth 5.0 Handsfree Car Kit Q
	76	deleyCON CTIA 4 Pin TRRS Microphone Extension
	77	Ulefone 3G Unlocked Mobile Phone Note 6, 8.5 mm Ultra Thin Dual SIM Smar
	78	Ulefone Power Armor 18T Ultra Outdoor Mobile Phone 5G Smartphone 2023, Dimens:
	79	Ulefone Armor 24 GB 256 GB Outdoor Smartphone Android 13 No Con-
	80	OUKITEL WP33 Pro Unbreakable Android 13 Mobile Phone, 22000mAh, 24GB+256GB Unbreakable Sm
	81	Tytlyworth Car Temporary Parking
	82	If of Justin Control of the Control
	83	
	84	Doro 2404 - 2G :
	85	UMIDIGI A13 Pro Max 5G Mobile Phone, 12GB RAM/256GB ROM Smartphone, Screen 6.8 Inch HD+ 5G WIF.
	86	The state of the s
	87	
	88	Redmi 13 (Midnight Black 8GB RAM, 256 Storage) - 6.7-inch 90Hz Dis
	89	Babymoov YOO Moov Motorised Video Babyphone, 360° Camera, Large 4.3
	90	HNOOM Mobile Phone Bag Women Wallet PU Le
	91	Unlocked Mobile Phone, 6.1 Inch
	92	

91 ## 92

```
## 93
## 94
                     Ulefone Android 13 Phone Note 16 Pro, Up to 16GB RAM+128GB ROM, 8MP+50MP, Dual SIM
## 95
## 96
                                                                       Super Small Mini Smartphone 3G Dua
## 97
## 98
           Blackview BV6200 Android 13 Unbreakable Mobile Phone, 13000mAh Battery/18W, 8GB+64GB ROM/TF-
                   FOSSIBOT 10600 mAh Unbreakable Smartphone Battery F101, Speaker 3.5W Max, 24MP Camer
## 99
## 100
                    Blackview Mobile Phone 4G, A55 (2022) Smartphone Cheap Android 11 (Screen 6.52" HD+
## 101
                                                               I14pro Max Smartphone Android Smartphone
## 102
                                                                                      Nokia Vodafone 3310
## 103
                          BACKBONE One Mobile Gaming Controller for Android and Plus iPhone 15 Series (
## 104
## 105
                         Ushining G181 Mobile Phone for Elderly with Large Buttons, High Volume, SOS Fu
## 106
                                       HONOR X6 Mobile Phone, Smartphone Battery 5000 mAh, Triple Camera
## 107
## 108 OUKITEL C33 Android 13 Mobile Phone, Cheap Smartphone 15GB+256GB (2TB Expansion), 6.8 inch HD+ S
## 109
                                                            TESSAN 6 in 1 Multi-Socket Electric Wall Soc
## 110
                                                       TESSAN Multi USB Socket, 3 Sockets and 2 USB Port
##
                                   Ratings Total_Number_of_Reviews
                 Price
## 1
       169,99 €169,99€ 4,4 étoile(s) sur 5
## 2
           6,95 €6,95€ 4,5 étoile(s) sur 5
                                                                 20
                                                                 70
           2,32 €2,32€ 4,4 étoile(s) sur 5
## 4
         19,98 €19,98€ 4,3 étoile(s) sur 5
                                                              4,075
## 5
         22,99 €22,99€ 4,3 étoile(s) sur 5
                                                             14,270
## 6
         68,63 €68,63€ 4,3 étoile(s) sur 5
                                                              3,747
## 7
         73,33 €73,33€ 4,6 étoile(s) sur 5
                                                                868
## 8
         39,99 €39,99€ 4,6 étoile(s) sur 5
                                                                  2
                                                                  6
## 9
         46,99 €46,99€ 4,5 étoile(s) sur 5
## 10
      138,00 €138,00€ 4,6 étoile(s) sur 5
                                                                 48
       159,00 €159,00€ 4,4 étoile(s) sur 5
                                                                293
       579,00 €579,00€ 4,3 étoile(s) sur 5
                                                                   2
## 13
       699,00 €699,00€ 4,4 étoile(s) sur 5
                                                              1,416
       329,00 €329,00€ 4,3 étoile(s) sur 5
                                                              2,144
## 15
       837,00 €837,00€ 4,4 étoile(s) sur 5
                                                                  1
## 16
       969,00 €969,00€ 4,5 étoile(s) sur 5
                                                               <NA>
## 17
         27,80 €27,80€ 4,4 étoile(s) sur 5
                                                               <NA>
      143,46 €143,46€ 4,6 étoile(s) sur 5
                                                               <NA>
       149,00 €149,00€ 4,5 étoile(s) sur 5
## 19
                                                               <NA>
       155,00 €155,00€ 4,5 étoile(s) sur 5
                                                               <NA>
## 21
       158,99 €158,99€ 4,3 étoile(s) sur 5
                                                               <NA>
         90,08 €90,08€ 4,4 étoile(s) sur 5
                                                               <NA>
## 23
         93,68 €93,68€ 4,5 étoile(s) sur 5
                                                               <NA>
## 24
       224,00 €224,00€ 4,4 étoile(s) sur 5
                                                               <NA>
## 25
       235,00 €235,00€ 4,5 étoile(s) sur 5
                                                               <NA>
## 26
            €6.95€6.95 4.5 out of 5 stars
                                                             33,797
## 27
            €2.32€2.32 4.4 out of 5 stars
                                                                110
## 28
          €19.98€19.98 4.3 out of 5 stars
                                                                883
## 29
          €22.99€22.99 4.5 out of 5 stars
                                                                  1
## 30
          €29.90€29.90 4.4 out of 5 stars
                                                              2,994
## 31
          €45.00€45.00
                        4.4 out of 5 stars
                                                                 79
## 32
          €61.80€61.80
                        4.4 out of 5 stars
                                                                  8
## 33
          €64.80€64.80 4.4 out of 5 stars
                                                              2,441
        €329.99€329.99 4.5 out of 5 stars
## 34
                                                                 15
```

768

€99.99€99.99 4.3 out of 5 stars

35

```
## 36
        €232.70€232.70 4.3 out of 5 stars
                                                                  166
## 37
          €59.00€59.00 4.4 out of 5 stars
                                                                  126
## 38
        €112.00€112.00 4.4 out of 5 stars
                                                                  566
        €119.00€119.00
## 39
                        4.4 out of 5 stars
                                                                  561
## 40
        €209.00€209.00
                         4.3 out of 5 stars
                                                                  999
## 41
          €99.99€99.99
                         4.5 out of 5 stars
                                                                   26
          €61.90€61.90
                        4.3 out of 5 stars
                                                                  538
## 42
                         4.6 out of 5 stars
## 43
            €8.99€8.99
                                                                  436
## 44
          €13.95€13.95
                         4.6 out of 5 stars
                                                                  783
                                                                9,348
## 45
          €31.11€31.11
                         4.4 out of 5 stars
## 46
        €239.99€239.99
                         4.4 out of 5 stars
                                                                   444
                                                               18,261
## 47
          €41.99€41.99
                         4.5 out of 5 stars
## 48
        €145.99€145.99
                         4.7 out of 5 stars
                                                                    5
          €53.62€53.62
## 49
                         4.6 out of 5 stars
                                                                    1
## 50
          €65.66€65.66
                         4.7 out of 5 stars
                                                                  131
## 51
            €8.99€8.99
                                        <NA>
                                                                2,235
## 52
          €10.99€10.99
                                        <NA>
                                                                   75
## 53
            €6.95€6.95
                        4.5 out of 5 stars
                                                               33,797
## 54
            €2.32€2.32
                        4.4 out of 5 stars
                                                                  110
## 55
          €19.98€19.98
                         4.3 out of 5 stars
                                                                   883
## 56
          €22.99€22.99
                         4.3 out of 5 stars
                                                                    1
## 57
          €29.90€29.90
                         4.4 out of 5 stars
                                                                    63
                         4.5 out of 5 stars
## 58
        €279.99€279.99
                                                                   29
          €16.47€16.47
                         4.3 out of 5 stars
                                                                    2
## 59
          €26.81€26.81
                         4.3 out of 5 stars
                                                                   100
## 60
## 61
          €60.98€60.98
                         4.3 out of 5 stars
                                                                   37
## 62
            €9.99€9.99
                         4.4 out of 5 stars
                                                               10,272
          €12.99€12.99
## 63
                         4.3 out of 5 stars
                                                                5,451
## 64
        €153.86€153.86
                         4.6 out of 5 stars
                                                                  244
## 65
        €175.00€175.00
                         4.3 out of 5 stars
                                                                   320
## 66
        €124.52€124.52
                         4.3 out of 5 stars
                                                                   53
## 67
          €59.99€59.99
                         4.3 out of 5 stars
                                                                   14
                                                                   12
## 68
        €299.99€299.99
                         4.3 out of 5 stars
        €169.99€169.99
## 69
                         4.5 out of 5 stars
                                                                5,182
## 70
          €42.87€42.87
                         4.7 out of 5 stars
                                                                  270
## 71
        €138.00€138.00
                         4.6 out of 5 stars
                                                                    5
## 72
        €107.00€107.00
                         4.7 out of 5 stars
                                                                  118
## 73
          €59.48€59.48
                                        < N A >
                                                                9,348
## 74
          €73.28€73.28
                                        <NA>
                                                                   444
                                                                  323
## 75
          €38.18€38.18
                                        <NA>
## 76
            €8.99€8.99
                                        <NA>
                                                                   17
## 77
          €10.99€10.99
                                        <NA>
                                                                   42
          €39.99€39.99
## 78
                                        <NA>
                                                                    6
            €9.87€9.87
                                        <NA>
## 79
                                                                  193
            €1.97€1.97
                                        <NA>
                                                                   852
## 80
                                                                  426
## 81
          €84.99€84.99
                                        <NA>
## 82
        €629.99€629.99
                                        <NA>
                                                                    1
## 83
                                        <NA>
        €679.99€679.99
                                                                  851
## 84
        €329.99€329.99
                                        <NA>
                                                                  100
## 85
        €369.99€369.99
                                        <NA>
                                                                   845
## 86
            €5.08€5.08
                                        <NA>
                                                                1,128
                                        <NA>
## 87
          €59.04€59.04
                                                                    5
## 88
          €62.21€62.21
                                        <NA>
                                                                    3
## 89
        €159.14€159.14
                                        <NA>
                                                                    12
```

```
## 90
          €59.99€59.99
                                         <NA>
                                                                    183
## 91
        €319.99€319.99
                                         <NA>
                                                                     10
          €35.78€35.78
## 92
                                         <NA>
                                                                     75
                                         <NA>
## 93
          €89.94€89.94
                                                                      9
## 94
        €142.00€142.00
                                         <NA>
                                                                    138
## 95
                                         <NA>
        €160.71€160.71
                                                                    125
## 96
        €219.90€219.90
                                         <NA>
                                                                  1.041
                                         <NA>
## 97
          €19.52€19.52
## 98
          €78.37€78.37
                                         <NA>
                                                                 10.048
## 99
          €89.44€89.44
                                         <NA>
                                                    Another way to buy
## 100
          €32.99€32.99
                                         <NA>
                                                                  1,510
## 101
          €69.99€69.99
                                         <NA>
                                                                    348
## 102 €159.99€159.99
                                         <NA>
                                                                    101
        €206.84€206.84
## 103
                                         < NA >
                                                                    105
## 104
          €65.00€65.00
                                         <NA>
                                                                    113
## 105
          €99.90€99.90
                                         <NA>
                                                    Another way to buy
## 106 €122.05€122.05
                                         <NA>
                                                                     23
## 107
        €139.99€139.99
                                         <NA>
                                                                  1,939
## 108
        €139.99€139.99
                                         <NA>
                                                                    652
## 109
        €100.92€100.92
                                         <NA>
                                                                  6,111
## 110
          €68.52€68.52
                                         <NA>
                                                                  4,427
10 reviews per 10 movies
#movie 1
url01 <- "https://www.imdb.com/title/tt15314262/reviews?ref_=tt_urv"</pre>
session01<-bow(url01,user_agent ="For Educational purposes only")
session01
## <polite session> https://www.imdb.com/title/tt15314262/reviews?ref_=tt_urv
##
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session01) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie name <- scrapeNodes("a.subnav heading")</pre>
movie_name <- rep(movie_name,10)</pre>
movie_name <- movie_name[1:10]</pre>
  movie_reviewer <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer <- movie_reviewer[1:10]</pre>
  movie_review <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review <- movie_review[1:10]</pre>
  movie_date <- scrapeNodes("span.review-date")</pre>
```

```
movie_date <- movie_date[1:10]</pre>
  movie_rating <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating <- movie_rating[1:10]</pre>
  moviereviews1= data.frame()
  moviereviews1 <- rbind(moviereviews1, data.frame(</pre>
                       category = movie category,
                       name = movie_name,
                       reviewer = movie_reviewer,
                       reviews = movie_review,
                       "date of review" =movie_date,
                       ratings = movie_rating))
  Sys.sleep(5)
#movie 2
url02 <- "https://www.imdb.com/title/tt6166392/reviews?ref_=tt_urv"</pre>
session<-bow(url02,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt6166392/reviews?ref_=tt_urv
##
       User-agent: For Educational purposes only
       robots.txt: 35 rules are defined for 3 bots
##
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
##
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name2 <- scrapeNodes("a.subnav_heading")</pre>
movie_name2 <- rep(movie_name2,10)</pre>
movie_name2 <- movie_name2[1:10]</pre>
  movie_reviewer2 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer2 <- movie_reviewer2[1:10]</pre>
  movie_review2 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review2 <- movie_review2[1:10]</pre>
  movie_date2 <- scrapeNodes("span.review-date")</pre>
  movie_date2 <- movie_date2[1:10]</pre>
  movie_rating2 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating2 <- movie_rating2[1:10]</pre>
  moviereviews2= data.frame()
```

```
moviereviews2 <- rbind(moviereviews2, data.frame(</pre>
                       category = movie_category,
                       name = movie_name2,
                       reviewer = movie_reviewer2,
                       reviews = movie_review2,
                        "date of review" =movie_date2,
                       ratings = movie_rating2))
  Sys.sleep(5)
#movie 3
url03 <- "https://www.imdb.com/title/tt11762114/reviews?ref_=tt_urv"</pre>
session<-bow(url03,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt11762114/reviews?ref_=tt_urv
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
      Crawl delay: 5 sec
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name3 <- scrapeNodes("a.subnav_heading")</pre>
movie_name3 <- rep(movie_name3,10)</pre>
movie_name3 <- movie_name3[1:10]</pre>
  movie_reviewer3 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer3 <- movie_reviewer3[1:10]</pre>
  movie_review3 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review3 <- movie_review3[1:10]</pre>
  movie_date3 <- scrapeNodes("span.review-date")</pre>
  movie_date3 <- movie_date3[1:10]</pre>
  movie_rating3 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie rating3 <- movie rating3[1:10]</pre>
  moviereviews3= data.frame()
  moviereviews3 <- rbind(moviereviews3, data.frame(</pre>
                       category = movie_category,
                       name = movie_name3,
                       reviewer = movie_reviewer3,
                       reviews = movie_review3,
                        "date of review" =movie_date3,
```

```
ratings = movie_rating3))
  Sys.sleep(5)
#movie 4
url04 <- "https://www.imdb.com/title/tt6495056/reviews?ref =tt urv"
session<-bow(url04,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt6495056/reviews?ref_=tt_urv
       User-agent: For Educational purposes only
##
##
       robots.txt: 35 rules are defined for 3 bots
##
      Crawl delay: 5 sec
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name4 <- scrapeNodes("a.subnav_heading")</pre>
movie_name4 <- rep(movie_name4,10)</pre>
movie_name4 <- movie_name4[1:10]</pre>
  movie_reviewer4 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer4 <- movie_reviewer4[1:10]</pre>
  movie_review4 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review4 <- movie_review4[1:10]</pre>
  movie_date4 <- scrapeNodes("span.review-date")</pre>
  movie_date4 <- movie_date4[1:10]</pre>
  movie_rating4 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating4 <- movie_rating4[1:10]</pre>
  moviereviews4= data.frame()
  moviereviews4 <- rbind(moviereviews4, data.frame(</pre>
                        category = movie_category,
                       name = movie_name4,
                       reviewer = movie_reviewer4,
                       reviews = movie_review4,
                        "date of review" =movie date4,
                       ratings = movie_rating4))
  Sys.sleep(5)
#movie 5
```

```
url05 <- "https://www.imdb.com/title/tt21188080/reviews?ref_=tt_urv"</pre>
session<-bow(url05,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt21188080/reviews?ref_=tt_urv
##
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
##
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html nodes(selector) %>%
      html text(trim = TRUE)
}
movie category <- rep("Movie",10)</pre>
movie_name5 <- scrapeNodes("a.subnav_heading")</pre>
movie_name5 <- rep(movie_name5,10)</pre>
movie_name5 <- movie_name5[1:10]</pre>
  movie_reviewer5 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer5 <- movie_reviewer5[1:10]</pre>
  movie_review5 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review5 <- movie_review5[1:10]</pre>
  movie date5 <- scrapeNodes("span.review-date")</pre>
  movie_date5 <- movie_date5[1:10]</pre>
  movie_rating5 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating5 <- movie_rating5[1:10]</pre>
  moviereviews5= data.frame()
  moviereviews5 <- rbind(moviereviews5, data.frame(</pre>
                       category = movie_category,
                       name = movie_name5,
                       reviewer = movie_reviewer5,
                       reviews = movie_review5,
                        "date of review" =movie_date5,
                       ratings = movie_rating5))
  Sys.sleep(5)
#movie 6
url06 <- "https://www.imdb.com/title/tt15009428/reviews?ref_=tt_urv"
session<-bow(url06,user_agent ="For Educational purposes only")</pre>
session
```

<polite session> https://www.imdb.com/title/tt15009428/reviews?ref_=tt_urv

```
##
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
      Crawl delay: 5 sec
##
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name6 <- scrapeNodes("a.subnav_heading")</pre>
movie_name6 <- rep(movie_name6,10)</pre>
movie_name6 <- movie_name6[1:10]</pre>
  movie_reviewer6 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer6 <- movie_reviewer6[1:10]</pre>
  movie_review6 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review6 <- movie_review6[1:10]</pre>
  movie date6 <- scrapeNodes("span.review-date")</pre>
  movie_date6 <- movie_date6[1:10]</pre>
  movie_rating6 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie rating6 <- movie rating6[1:10]</pre>
  moviereviews6= data.frame()
  moviereviews6 <- rbind(moviereviews6, data.frame(</pre>
                       category = movie_category,
                       name = movie_name6,
                       reviewer = movie_reviewer6,
                       reviews = movie_review6,
                       "date of review" =movie_date6,
                       ratings = movie_rating6))
  Sys.sleep(5)
#movie 7
url07 <- "https://www.imdb.com/title/tt0109830/reviews?ref =tt urv"
session<-bow(url07,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt0109830/reviews?ref_=tt_urv
##
       User-agent: For Educational purposes only
       robots.txt: 35 rules are defined for 3 bots
##
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
```

```
html_text(trim = TRUE)
movie_category <- rep("Movie",10)</pre>
movie name7 <- scrapeNodes("a.subnav heading")</pre>
movie_name7 <- rep(movie_name7,10)</pre>
movie name7 <- movie name7[1:10]
  movie_reviewer7 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer7 <- movie_reviewer7[1:10]</pre>
  movie_review7 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review7 <- movie_review7[1:10]</pre>
  movie_date7 <- scrapeNodes("span.review-date")</pre>
  movie_date7 <- movie_date7[1:10]</pre>
  movie_rating7 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating7 <- movie_rating7[1:10]</pre>
  moviereviews7= data.frame()
  moviereviews7 <- rbind(moviereviews7, data.frame(</pre>
                       category = movie_category,
                       name = movie name7,
                       reviewer = movie_reviewer7,
                       reviews = movie review7,
                       "date of review" =movie_date7,
                       ratings = movie_rating7))
  Sys.sleep(5)
#movie 8
url08 <- "https://www.imdb.com/title/tt14230458/reviews?ref_=tt_urv"
session<-bow(url08,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt14230458/reviews?ref =tt urv
##
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name8 <- scrapeNodes("a.subnav_heading")</pre>
```

```
movie_name8 <- rep(movie_name8,10)</pre>
movie_name8 <- movie_name8[1:10]</pre>
  movie_reviewer8 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer8 <- movie_reviewer8[1:10]</pre>
  movie_review8 <- scrapeNodes("div.text.show-more__control")</pre>
  movie review8 <- movie review8[1:10]
  movie_date8 <- scrapeNodes("span.review-date")</pre>
  movie_date8 <- movie_date8[1:10]</pre>
  movie_rating8 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating8 <- movie_rating8[1:10]</pre>
  moviereviews8= data.frame()
  moviereviews8 <- rbind(moviereviews8, data.frame(</pre>
                       category = movie_category,
                       name = movie_name8,
                       reviewer = movie_reviewer8,
                        reviews = movie_review8,
                        "date of review" =movie_date8,
                        ratings = movie_rating8))
  Sys.sleep(5)
#movie 9
url09 <- "https://www.imdb.com/title/tt23561236/reviews?ref_=tt_urv"</pre>
session<-bow(url09,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt23561236/reviews?ref_=tt_urv
##
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
##
      Crawl delay: 5 sec
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name9 <- scrapeNodes("a.subnav_heading")</pre>
movie_name9 <- rep(movie_name9,10)</pre>
movie_name9 <- movie_name9[1:10]</pre>
  movie_reviewer9 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer9 <- movie_reviewer9[1:10]</pre>
  movie_review9 <- scrapeNodes("div.text.show-more__control")</pre>
```

```
movie_review9 <- movie_review9[1:10]</pre>
  movie_date9 <- scrapeNodes("span.review-date")</pre>
  movie_date9 <- movie_date9[1:10]</pre>
  movie_rating9 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating9 <- movie_rating9[1:10]</pre>
  moviereviews9= data.frame()
  moviereviews9 <- rbind(moviereviews9, data.frame(</pre>
                       category = movie_category,
                       name = movie_name9,
                       reviewer = movie_reviewer9,
                       reviews = movie_review9,
                        "date of review" =movie_date9,
                        ratings = movie_rating9))
  Sys.sleep(5)
#movie 10
url10 <- "https://www.imdb.com/title/tt15398776/reviews?ref_=tt_urv"
session<-bow(url10,user_agent ="For Educational purposes only")</pre>
session
## <polite session> https://www.imdb.com/title/tt15398776/reviews?ref_=tt_urv
       User-agent: For Educational purposes only
##
       robots.txt: 35 rules are defined for 3 bots
      Crawl delay: 5 sec
##
     The path is scrapable for this user-agent
scrapeNodes <- function(selector){</pre>
    scrape(session) %>%
      html_nodes(selector) %>%
      html_text(trim = TRUE)
}
movie_category <- rep("Movie",10)</pre>
movie_name10 <- scrapeNodes("a.subnav_heading")</pre>
movie_name10 <- rep(movie_name10,10)</pre>
movie_name10 <- movie_name10[1:10]</pre>
  movie_reviewer10 <- scrapeNodes("span.display-name-link")</pre>
  movie_reviewer10 <- movie_reviewer10[1:10]</pre>
  movie_review10 <- scrapeNodes("div.text.show-more__control")</pre>
  movie_review10 <- movie_review10[1:10]</pre>
  movie_date10 <- scrapeNodes("span.review-date")</pre>
  movie_date10 <- movie_date10[1:10]</pre>
  movie_rating10 <- scrapeNodes("span.rating-other-user-rating")</pre>
  movie_rating10 <- movie_rating10[1:10]</pre>
```