RWorksheet#5

Andica, Benedicto, Cautivar

2024-11-06

```
Extracting IMDB. 1.
library(polite)
url <- 'https://www.imdb.com/chart/toptv/?ref_=nv_tvv_250'</pre>
session <- bow(url,</pre>
                user_agent = "Educational")
session
## <polite session> https://www.imdb.com/chart/toptv/?ref_=nv_tvv_250
##
       User-agent: Educational
##
       robots.txt: 35 rules are defined for 3 bots
      Crawl delay: 5 sec
##
##
     The path is scrapable for this user-agent
library(rvest)
library(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
title_list <- scrape(session) %>%
   html_nodes('h3.ipc-title__text') %>%
  html_text
title_list_sub <- as.data.frame(title_list[2:26])</pre>
colnames(title_list_sub) <- "Ranks"</pre>
split_df <- strsplit(as.character(title_list_sub$Ranks),".",fixed = TRUE)</pre>
split_df <- data.frame(do.call(rbind,split_df))</pre>
colnames(split_df) <- c("Ranks", "Title")</pre>
titleAndRank <- data.frame(split_df)</pre>
```

```
html_nodes('span.ipc-rating-star--rating') %>%
  html text
ratingsDf <- data.frame(ratings)</pre>
numberOfPeopleVoted <- scrape(session) %>%
   html nodes('span.ipc-rating-star--voteCount') %>%
  html_text
cleanedVotes <- gsub('[()]', '', numberOfPeopleVoted)</pre>
cleanedVotesDf <- data.frame(cleanedVotes)</pre>
numEpisodes <- scrape(session) %>%
   html_nodes('span.sc-5bc66c50-6.00dsw.cli-title-metadata-item:nth-of-type(2)') %>%
  html_text
numEpisodesDf <- data.frame(numEpisodes)</pre>
Year <- scrape(session) %>%
   html_nodes('span.sc-5bc66c50-6.00dsw.cli-title-metadata-item:nth-of-type(1)') %>%
  html_text
YearDf <- data.frame(Year)</pre>
topShows <- cbind(titleAndRank, ratingsDf, cleanedVotesDf, numEpisodesDf, YearDf)
topShows
##
      Ranks
                                          Title ratings cleanedVotes numEpisodes
## 1
          1
                                   Breaking Bad
                                                     9.5
                                                                  2.2M
                                                                            62 eps
## 2
                               Planet Earth II
                                                     9.5
                                                                  162K
                                                                             6 eps
## 3
          3
                                   Planet Earth
                                                     9.4
                                                                  223K
                                                                            11 eps
## 4
          4
                              Band of Brothers
                                                     9.4
                                                                  544K
                                                                            10 eps
## 5
          5
                                      Chernobyl
                                                     9.3
                                                                  905K
                                                                             5 eps
## 6
          6
                                       The Wire
                                                     9.3
                                                                  390K
                                                                            60 eps
## 7
          7
                    Avatar: The Last Airbender
                                                     9.3
                                                                  389K
                                                                            62 eps
## 8
                                 Blue Planet II
                                                     9.3
                                                                  48K
                                                                             7 eps
## 9
          9
                                   The Sopranos
                                                     9.2
                                                                  497K
                                                                            86 eps
## 10
         10
                   Cosmos: A Spacetime Odyssey
                                                     9.2
                                                                  131K
                                                                            13 eps
## 11
         11
                                                     9.3
                                         Cosmos
                                                                  45K
                                                                            13 eps
## 12
                                     Our Planet
         12
                                                     9.2
                                                                   53K
                                                                            12 eps
## 13
         13
                                Game of Thrones
                                                     9.2
                                                                  2.4M
                                                                            74 eps
                                          Bluey
## 14
         14
                                                     9.3
                                                                   33K
                                                                           194 eps
## 15
         15
                              The World at War
                                                     9.2
                                                                   31K
                                                                            26 eps
## 16
         16
             Fullmetal Alchemist: Brotherhood
                                                     9.1
                                                                  208K
                                                                            68 eps
## 17
         17
                                 Rick and Morty
                                                     9.1
                                                                  626K
                                                                            78 eps
         18
## 18
                                           Life
                                                     9.1
                                                                  43K
                                                                            11 eps
                                                                            10 eps
## 19
         19
                                 The Last Dance
                                                     9.1
                                                                  159K
## 20
         20
                             The Twilight Zone
                                                     9.0
                                                                  96K
                                                                           156 eps
## 21
         21
                                The Vietnam War
                                                     9.1
                                                                   29K
                                                                            10 eps
## 22
         22
                                       Sherlock
                                                     9.1
                                                                    1M
                                                                            15 eps
```

ratings <- scrape(session) %>%

```
## 23
         23
                                Attack on Titan
                                                     9.1
                                                                  559K
                                                                             98 eps
## 24
         24
                   Batman: The Animated Series
                                                     9.0
                                                                  122K
                                                                             85 eps
                                     The Office
## 25
         25
                                                     9.0
                                                                  745K
                                                                           188 eps
##
           Year
## 1
      2008-2013
## 2
           2016
## 3
           2006
## 4
           2001
## 5
           2019
## 6
      2002-2008
## 7
      2005-2008
## 8
           2017
      1999-2007
## 9
## 10
           2014
## 11
           1980
## 12 2019-2023
## 13 2011-2019
## 14
         2018-
## 15 1973-1974
## 16 2009-2010
## 17
         2013-
## 18
           2009
## 19
           2020
## 20 1959-1964
## 21
           2017
## 22 2010-2017
## 23 2013-2023
## 24 1992-1995
## 25 2005-2013
  1. PART II
homePage <- 'https://www.imdb.com/chart/toptv/'</pre>
mainPage <- read_html(homePage)</pre>
links <- mainPage %>%
  html_nodes("a.ipc-title-link-wrapper") %>%
  html_attr("href")
showInfo <- lapply(links, function(link) {</pre>
  fullLink <- paste0("https://imdb.com", link)</pre>
  userRevLink <- read_html(fullLink)</pre>
  userRevPageLink <- userRevLink %>%
    html nodes('a.isReview') %>%
    html_attr("href")
  criticRev <- userRevLink %>%
               html_nodes("span.score") %>%
               html_text()
  criticDf <- data.frame(Critic_Reviews = criticRev[2], stringsAsFactors = FALSE)</pre>
  popularityRating <- userRevLink %>%
               html_nodes('[data-testid="hero-rating-bar_popularity_score"]') %>%
               html_text()
```

```
userRev <- read_html(paste0("https://imdb.com", userRevPageLink[1]))</pre>
  userRevCount <- userRev %>%
    html nodes('[data-testid="tturv-total-reviews"]') %>%
    html text()
 return(data.frame(User_Reviews = userRevCount, Critic = criticDf, Popularity_Rating = popularityRatin
})
showUrlDf <- do.call(rbind, showInfo)</pre>
showUrlDf
       User_Reviews Critic_Reviews Popularity_Rating
## 1 5,085 reviews
                                175
                                                    20
## 2 5,085 reviews
                                175
                                                    20
## 3
        158 reviews
                                                 1,121
                                  6
## 4
        158 reviews
                                 6
                                                 1,121
## 5
        111 reviews
                                 10
                                                2,011
## 6
        111 reviews
                                 10
                                                 2.011
## 7 1,056 reviews
                                 34
                                                   171
## 8 1,056 reviews
                                                   171
                                 34
## 9 3,530 reviews
                                 88
                                                   173
## 10 3,530 reviews
                                 88
                                                   173
## 11
        787 reviews
                                 77
                                                   108
## 12
        787 reviews
                                 77
                                                   108
## 13
        998 reviews
                                 57
                                                   373
## 14
        998 reviews
                                 57
                                                   373
## 15
        53 reviews
                                 9
                                                 4,415
## 16
        53 reviews
                                 9
                                                 4,415
## 17
        962 reviews
                                 93
                                                    33
## 18
        962 reviews
                                 93
                                                    33
## 19
        205 reviews
                                 12
                                                 1,499
## 20
        205 reviews
                                 12
                                                 1,499
## 21
         80 reviews
                                  8
                                                3,866
## 22
                                 8
         80 reviews
                                                3,866
## 23
        245 reviews
                                 15
                                                 2,765
                                 15
## 24
        245 reviews
                                                 2,765
## 25 5,898 reviews
                                368
                                                    14
## 26 5,898 reviews
                                368
                                                    14
## 27
        367 reviews
                                  4
                                                   411
## 28
        367 reviews
                                  4
                                                   411
                                                 2,627
## 29
        126 reviews
                                  5
## 30
        126 reviews
                                 5
                                                 2,627
## 31
        465 reviews
                                 16
                                                   508
## 32
        465 reviews
                                 16
                                                   508
## 33
        908 reviews
                                 94
                                                   137
## 34
        908 reviews
                                 94
                                                   137
## 35
         12 reviews
                                  9
                                                 3,455
## 36
         12 reviews
                                 9
                                                 3,455
## 37
        541 reviews
                                 28
                                                1,521
## 38
        541 reviews
                                 28
                                                 1,521
```

354

85

39

213 reviews

```
## 40
       213 reviews
                              85
                                               354
## 41 175 reviews
                              13
                                             2,022
## 42 175 reviews
                              13
                                             2,022
## 43 1,095 reviews
                              121
                                               172
## 44 1,095 reviews
                                               172
                              121
## 45 2,358 reviews
                              64
                                                60
## 46 2,358 reviews
                                                60
                               64
                                               527
## 47
       219 reviews
                               25
       219 reviews
                               25
                                               527
## 48
                               76
## 49 1,774 reviews
                                                55
## 50 1,774 reviews
                               76
                                                55
```

allShows <- cbind(topShows, showUrlDf) allShows</pre>

##		Ranks	Title	ratings	${\tt cleanedVotes}$	numEpiso	odes
##	1	1	Breaking Bad	9.5	2.2M	62	eps
##	2	2	Planet Earth II	9.5	162K	6	eps
##	3	3	Planet Earth	9.4	223K	11	eps
##	4	4	Band of Brothers	9.4	544K	10	eps
##	5	5	Chernobyl	9.3	905K	5	eps
##	6	6	The Wire	9.3	390K	60	eps
##	7	7	Avatar: The Last Airbender	9.3	389K	62	eps
##	8	8	Blue Planet II	9.3	48K	7	eps
##	9	9	The Sopranos	9.2	497K	86	eps
##	10	10	Cosmos: A Spacetime Odyssey	9.2	131K	13	eps
##	11	11	Cosmos	9.3	45K	13	eps
##	12	12	Our Planet	9.2	53K	12	eps
##	13	13	Game of Thrones	9.2	2.4M	74	eps
##	14	14	Bluey	9.3	33K	194	eps
##	15	15	The World at War	9.2	31K	26	eps
##	16	16	Fullmetal Alchemist: Brotherhood	9.1	208K	68	eps
##	17	17	Rick and Morty	9.1	626K	78	eps
##	18	18	Life	9.1	43K	11	eps
##	19	19	The Last Dance	9.1	159K	10	eps
##	20	20	The Twilight Zone	9.0	96K	156	eps
##	21	21	The Vietnam War	9.1	29K	10	eps
##	22	22	Sherlock	9.1	1M	15	eps
##	23	23	Attack on Titan	9.1	559K	98	eps
##	24	24	Batman: The Animated Series	9.0	122K	85	eps
##	25	25	The Office	9.0	745K	188	eps
##	26	1	Breaking Bad	9.5	2.2M	62	eps
##	27	2	Planet Earth II	9.5	162K	6	eps
##	28	3	Planet Earth	9.4	223K	11	eps
##	29	4	Band of Brothers	9.4	544K	10	eps
##	30	5	Chernobyl	9.3	905K	5	eps
##	31	6	The Wire	9.3	390K		eps
##	32	7	Avatar: The Last Airbender	9.3	389K	62	eps
##	33	8	Blue Planet II	9.3	48K	7	eps
##	34	9	The Sopranos	9.2	497K	86	eps
##	35	10	Cosmos: A Spacetime Odyssey	9.2	131K	13	eps
##	36	11	Cosmos	9.3	45K		eps
##	37	12	Our Planet	9.2	53K	12	eps
##	38	13	Game of Thrones	9.2	2.4M	74	eps
##	39	14	Bluey	9.3	33K	194	eps

```
## 40
                              The World at War
                                                    9.2
                                                                  31K
                                                                            26 eps
                                                                            68 eps
## 41
             Fullmetal Alchemist: Brotherhood
                                                    9.1
                                                                 208K
## 42
         17
                                Rick and Morty
                                                    9.1
                                                                 626K
                                                                            78 eps
## 43
                                                    9.1
                                                                  43K
         18
                                           Life
                                                                            11 eps
## 44
         19
                                The Last Dance
                                                    9.1
                                                                 159K
                                                                            10 eps
## 45
         20
                             The Twilight Zone
                                                    9.0
                                                                  96K
                                                                           156 eps
## 46
                               The Vietnam War
                                                    9.1
                                                                  29K
                                                                            10 eps
                                                    9.1
## 47
         22
                                       Sherlock
                                                                   1M
                                                                            15 eps
## 48
         23
                               Attack on Titan
                                                    9.1
                                                                 559K
                                                                            98 eps
## 49
         24
                                                    9.0
                   Batman: The Animated Series
                                                                 122K
                                                                            85 eps
## 50
                                    The Office
                                                    9.0
                                                                 745K
                                                                           188 eps
##
           Year User_Reviews Critic_Reviews Popularity_Rating
      2008-2013 5,085 reviews
## 1
                                           175
                                           175
## 2
           2016 5,085 reviews
                                                               20
## 3
           2006
                  158 reviews
                                             6
                                                            1,121
## 4
           2001
                   158 reviews
                                             6
                                                            1,121
## 5
           2019
                   111 reviews
                                            10
                                                            2,011
## 6
     2002-2008
                  111 reviews
                                            10
                                                            2,011
## 7
      2005-2008 1,056 reviews
                                            34
                                                              171
## 8
           2017 1,056 reviews
                                            34
                                                              171
## 9
      1999-2007 3,530 reviews
                                            88
                                                              173
## 10
           2014 3,530 reviews
                                            88
                                                              173
## 11
           1980
                  787 reviews
                                            77
                                                              108
## 12 2019-2023
                   787 reviews
                                            77
                                                              108
## 13 2011-2019
                  998 reviews
                                            57
                                                              373
         2018-
                   998 reviews
                                            57
                                                              373
## 15 1973-1974
                   53 reviews
                                             9
                                                            4,415
## 16 2009-2010
                   53 reviews
                                             9
                                                            4,415
## 17
         2013-
                   962 reviews
                                            93
                                                               33
## 18
           2009
                   962 reviews
                                            93
                                                               33
                                                            1,499
## 19
           2020
                   205 reviews
                                            12
## 20 1959-1964
                   205 reviews
                                            12
                                                            1,499
## 21
           2017
                   80 reviews
                                             8
                                                            3,866
                   80 reviews
## 22 2010-2017
                                             8
                                                            3,866
## 23 2013-2023
                   245 reviews
                                            15
                                                            2,765
## 24 1992-1995
                   245 reviews
                                            15
                                                            2,765
## 25 2005-2013 5,898 reviews
                                           368
                                                              14
## 26 2008-2013 5,898 reviews
                                           368
                                                               14
## 27
           2016
                   367 reviews
                                             4
                                                              411
## 28
           2006
                   367 reviews
                                             4
                                                              411
## 29
           2001
                   126 reviews
                                             5
                                                            2,627
## 30
           2019
                  126 reviews
                                             5
                                                            2,627
## 31 2002-2008
                                                              508
                   465 reviews
                                            16
## 32 2005-2008
                                                              508
                   465 reviews
                                            16
                                                              137
           2017
                   908 reviews
                                            94
## 34 1999-2007
                   908 reviews
                                            94
                                                              137
## 35
           2014
                   12 reviews
                                             9
                                                            3,455
## 36
           1980
                                             9
                   12 reviews
                                                            3,455
## 37 2019-2023
                  541 reviews
                                            28
                                                            1,521
## 38 2011-2019
                  541 reviews
                                            28
                                                            1,521
## 39
         2018-
                   213 reviews
                                            85
                                                              354
## 40 1973-1974
                  213 reviews
                                            85
                                                              354
## 41 2009-2010
                  175 reviews
                                            13
                                                            2,022
## 42
                  175 reviews
         2013-
                                            13
                                                            2,022
```

```
## 43
           2009 1,095 reviews
                                          121
                                                            172
## 44
           2020 1,095 reviews
                                          121
                                                            172
## 45 1959-1964 2,358 reviews
                                          64
                                                             60
           2017 2,358 reviews
                                           64
                                                             60
## 46
## 47 2010-2017
                219 reviews
                                           25
                                                            527
## 48 2013-2023 219 reviews
                                           25
                                                            527
## 49 1992-1995 1,774 reviews
                                           76
                                                             55
## 50 2005-2013 1,774 reviews
                                           76
                                                             55
Extracting Amazon Product Reviews 4.
library(rvest)
library(httr)
library(dplyr)
library(polite)
library(stringr)
urls <- c('https://www.amazon.com/s?k=backpacks&crid=35ZQ1H72MC3G9&sprefix=backpacks%2Caps%2C590&ref=nb
          'https://www.amazon.com/s?k=laptops&crid=L7MQBW7MD4SX&sprefix=laptopb%2Caps%2C1304&ref=nb_sb_
          'https://www.amazon.com/s?k=phone+case&dc&crid=1VPDCJ87S93TL&sprefix=phone+cas%2Caps%2C451&re
          'https://www.amazon.com/s?k=mountain+bike&crid=1ZQR71S8XHZN6&sprefix=mountain+bik%2Caps%2C499
          'https://www.amazon.com/s?k=tshirt&crid=2RQIP7MP6IYAW&sprefix=tshirt%2Caps%2C443&ref=nb_sb_no
df <- list()</pre>
for (i in seq_along(urls)) {
    sessions <- bow(urls[i], user_agent = "Educational")</pre>
  productName <- scrape(sessions) %>%
   html_nodes('h2.a-size-mini') %>%
   html text() %>%
   head(30)
  productDescription <- scrape(sessions) %>%
   html_nodes('div.productDescription') %>%
   html_text() %>%
   head(30)
  productRating <- scrape(sessions) %>%
   html_nodes('span.a-icon-alt') %>%
   html_text() %>%
   head(30)
  ratings <- as.numeric(str extract(productRating, "\\d+\\.\\d"))
  productPrice <- scrape(sessions) %>%
   html_nodes('span.a-price') %>%
   html_text() %>%
   head(30)
  price <- as.numeric(str_extract(productPrice, "\\d+\\.\\d+"))</pre>
```

```
productReview <- scrape(sessions) %>%
    html_nodes('div.review-text-content') %>%
   html_text() %>%
    head(30)
  dfAma <- data.frame(Product_Name = productName[1:30],</pre>
                       Description = productDescription[1:30],
                       Rating = ratings[1:30],
                       Price = price[1:30],
                       stringsAsFactors = FALSE)
  df[[i]] <- dfAma
}
print(df[[1]])
##
      MATEIN Travel Laptop Backpack, Business Anti Theft Slim Sturdy Laptops Backpack with USB Charging
## 2
                                             JanSport SuperBreak One Backpacks - Durable, Lightweight Bo
## 3
## 4
        Taygeer Travel Backpack for Women, Carry On Backpack with USB Charging Port & Shoe Pouch, TSA 1
## 5
## 6
## 7
           YOREPEK Travel Backpack, Extra Large 50L Laptop Backpacks for Men Women, Water Resistant Col
## 8
       Lapsouno Travel Backpack, Large Carry on Backpack, 17 Inch Laptop Backpack, Big Backpack, Extra
## 9
             Laptop Backpack, Business Travel Anti Theft Slim Durable Laptops Backpack with USB Charging
## 10
                                                                JanSport Laptop Backpack - Computer Bag w
## 11
                                                              JanSport Right Pack Backpack - Durable Dayp
## 12
## 13
## 14
                       LOVEVOOK Laptop Backpack Women, Large Travel Bag with USB Port Fit 17 Inch Lapto
## 15
                                                                           Amazon Basics Transparent Scho
## 16
## 17
## 18
## 19
## 20
## 21
## 22
## 23
## 24
## 25
## 26
## 27
## 28
## 29
## 30
##
      Description Rating Price
             <NA>
## 1
                     4.7 21.99
                     4.6 39.96
## 2
             <NA>
## 3
             <NA>
                     4.6 38.00
## 4
             <NA>
                     4.7 23.99
## 5
             <NA>
                     4.6 23.99
```

```
## 6
              <NA>
                       3.7 23.99
## 7
                       4.7 8.99
              <NA>
## 8
              <NA>
                       4.5 12.00
## 9
              <NA>
                       4.6 27.99
## 10
              <NA>
                       4.7 39.99
## 11
              <NA>
                       4.7 23.98
## 12
              <NA>
                       4.6 49.99
## 13
              <NA>
                       4.8 29.99
## 14
              <NA>
                       4.8 48.17
## 15
              <NA>
                       4.6 55.00
## 16
              <NA>
                       4.7 44.00
                        NA 64.99
## 17
              < NA >
## 18
              <NA>
                        NA 71.99
## 19
              <NA>
                        NA 89.99
## 20
              <NA>
                        NA 99.00
## 21
              <NA>
                        NA 19.98
## 22
              <NA>
                        NA 39.98
## 23
              <NA>
                        NA 16.49
                        NA 80.00
## 24
              <NA>
## 25
              <NA>
                        NA
## 26
              <NA>
                        NA
                               NΑ
## 27
              <NA>
                        NA
                               NA
## 28
              <NA>
                        NA
                               NA
## 29
              <NA>
                        NA
                               NA
## 30
              <NA>
                        NA
                               NA
```

print(df[[2]])

22 ## 23 ## 24 ## 25 ## 26

```
##
## 1
        Acer Aspire 3 A315-24P-R7VH Slim Laptop | 15.6" Full HD IPS Display | AMD Ryzen 3 7320U Quad-Co.
## 2
                             HP Portable Laptop, Student and Business, 14" HD Display, Intel Quad-Core
## 3
                 HP Newest 255 G10 Laptop for Home or Work, 16GB RAM, 1TB SSD, 15.6" Full HD, Ryzen 3 7
## 4
               HP Newest 14" Ultral Light Laptop for Students and Business, Intel Quad-Core N4120, 8GB
## 5
                                 HP 15.6 FHD Display G9 Laptop • 32GB RAM • 1TB Storage (512GB SSD & 50
## 6
## 7
           HP 14 Laptop, Intel Celeron N4020, 4 GB RAM, 64 GB Storage, 14-inch Micro-edge HD Display, W
## 8
                                    15.6 FHD Student Laptop Computer, 16GB RAM 1TB SSD, Backlit Keyboar
## 9
                  HP 15.6" Portable Laptop (Include 1 Year Microsoft 365), HD Display, Intel Quad-Core
## 10
                                                                    HP 17 Laptop, 17.3" HD+ Display, 11
## 11
                                                              Newest HP 14" HD Laptop, Windows 11, Inte
## 12
            HP 15.6" Business & Student Laptop Computer, Intel Core i5, Windows 11 Pro Laptop with Micr
## 13
          Lenovo IdeaPad 1 Student Laptop, Intel Dual Core Processor, 20GB RAM, 1TB SSD + 128GB eMMC, 1
## 14 HP 2024 Newest Laptop for Business and Student, 15.6" HD Touchscreen, Intel 6-Core i3-1215U Proce
## 15
      HP Stream 14" HD BrightView Laptop, Intel Celeron N4120, 16GB RAM, 288GB Storage (128GB eMMC + 1
## 16
          HP Newest 14" LED Business Laptop Computer, 16GB RAM 320GB Storage (64GB eMMC+256GB SD Card),
## 17
## 18
## 19
## 20
## 21
```

```
## 27
## 28
## 29
## 30
##
      Description Rating Price
## 1
                       4.2 279.99
              <NA>
## 2
              <NA>
                        NA 321.99
## 3
              <NA>
                       4.3 197.36
## 4
              <NA>
                       4.4 269.00
## 5
              < NA >
                       4.1 448.88
## 6
              <NA>
                       4.3 599.00
## 7
              <NA>
                       4.0 249.99
## 8
                       4.4 419.58
              <NA>
## 9
              < NA >
                       4.1 499.00
## 10
              <NA>
                       4.0 147.88
## 11
              <NA>
                       5.0 176.00
                       4.1 209.99
## 12
              <NA>
## 13
                       4.2 389.00
              <NA>
## 14
              <NA>
                       4.1 439.00
## 15
              <NA>
                       4.1 279.90
## 16
              <NA>
                       4.1 474.99
                       4.3 157.45
## 17
              <NA>
## 18
              <NA>
                       4.3 168.95
## 19
              <NA>
                       4.1 689.99
## 20
              <NA>
                        NA 399.00
## 21
              <NA>
                        NA 399.00
## 22
              <NA>
                        NA 469.00
## 23
              <NA>
                        NA 309.00
                        NA 399.00
## 24
              <NA>
## 25
              <NA>
                        NA 299.99
## 26
              <NA>
                        NA
                           399.99
## 27
              <NA>
                        NA
                                NA
## 28
              <NA>
                        NA
                                NA
## 29
              <NA>
                        NA
                                NA
## 30
              <NA>
                        NA
                                NA
```

print(df[[3]])

1 ESR for iPhone 14 Case/iPhone 13 Case, Compatible with MagSafe, Shockproof ## 2 BENTOBEN Magnetic for iPhone 13 Case & iPhone 14 Case [Compatible with Magsafe] Translucent Matte ## 3 Temdan for iPhone 16 Pro Max Case Clear, [Compatible with Magsafe] [Anti-Yello ## 4 OtterBox iPhone 15, iPh ## 5 ORNARTO Compatible with iPhone ## 6 OtterBox ## 7 OtterBox iPho: ## 8 ## 9 OtterBox iPhone SE 3rd & 2nd Gen, iPhone 8 & iPhone 7 (not Compatible with Plus Sized Models ## 10 JETech Ca ## 11 BENTOBEN for iPhone 11 Phone Case, Phone case for iPhone 11 Magnetic Case [Compatible with] ## 12 ## 13 elago Liquid Silicone Case Compatible with iPhone 13 Pro Case (6.1"), Premium Silic ## 14 JETech Ca ## 15 ## 16 elago Compatible with iPhone 14 Pro Case, Liquid Silicone Case, Full Bo

```
## 17
## 18
## 19
## 20
## 21
## 22
## 23
## 24
## 25
## 26
## 27
## 28
## 29
## 30
##
      Description Rating Price
## 1
              <NA>
                       3.7 14.99
## 2
              <NA>
                       3.6 30.99
## 3
              <NA>
                       3.7 12.98
## 4
              <NA>
                       4.6 8.99
## 5
              <NA>
                       4.5 34.95
## 6
              <NA>
                       4.6 39.95
## 7
              <NA>
                       4.6 9.99
## 8
                       4.5 20.99
              <NA>
## 9
                       4.7 34.63
              <NA>
## 10
              <NA>
                       4.7 39.95
## 11
              <NA>
                       4.7 27.39
## 12
              <NA>
                       4.7 39.95
## 13
              <NA>
                       4.6 29.95
## 14
              < NA >
                       4.6 27.28
## 15
              <NA>
                       4.7 49.95
## 16
              < NA >
                       4.4
                            9.99
## 17
              <NA>
                       4.6 9.99
## 18
              <NA>
                       4.5 31.99
                       4.5 59.95
## 19
              <NA>
## 20
              <NA>
                        NA 12.99
## 21
              <NA>
                        NA 9.99
## 22
              <NA>
                        NA 22.98
## 23
              <NA>
                        NA 27.98
## 24
              <NA>
                        NA 12.99
## 25
              <NA>
                        NA
                               NA
## 26
              <NA>
                        NA
                               NA
## 27
              <NA>
                        NA
                               NA
## 28
              <NA>
                        NA
                               NA
## 29
              <NA>
                        NA
                               NA
## 30
              <NA>
                        NA
                               NA
print(df[[4]])
```

```
## 7
                                             26/27.5" Mountain Bike 21 Speed Bikes for Adults, Men & Wome
## 8
                                                           Mountain Bike 24/26/27.5 Inch, Dual Full Suspen
## 9
       Schwinn Traxion Mountain Bike for Adult Men Women, 29-Inch Wheels, Full Suspension, 24-Speed Ship
                                                                                Schwinn Bonafide Men and Wor
## 10
## 11
                                                                Ktaxon Mountain Bike 26/27.5/29 Inch Men &
## 12
                                  Grafton Mountain Bike for Adult and Youth Men and Women, 24/26 / 27.5-
## 13
                                               Ktaxon Folding Mountain Bike 21-Speed Adult Bikes 26 Inch
## 14
                           Dynacraft Air Zone Aftershock 20" Mountain Bike - Rugged and Durable Design,
## 15
                                                        Dynacraft Vertical Alpine Eagle Mountain Bike - Ru
         isinwheel M10 Electric Bike Adult 500W, 26" Commuting Electric Mountain Bike 20MPH Max Range 5
## 16
## 17
## 18
## 19
## 20
## 21
## 22
## 23
## 24
## 25
## 26
## 27
## 28
## 29
## 30
##
      Description Rating Price
## 1
             <NA>
                      4.4 179.99
## 2
             <NA>
                      4.4 199.99
## 3
                      4.0 199.99
             <NA>
## 4
                      4.3 269.99
             < NA >
## 5
             <NA>
                      4.1 329.99
## 6
             < NA >
                      4.1 423.24
## 7
             <NA>
                      4.4 499.99
## 8
             <NA>
                      4.0 492.99
## 9
                      2.5 519.99
             <NA>
## 10
             <NA>
                      4.3 158.94
## 11
             <NA>
                      4.3 169.99
## 12
             <NA>
                      4.2 109.99
## 13
             <NA>
                      4.2 199.99
## 14
             <NA>
                      3.5 179.99
                      4.4 648.43
## 15
             <NA>
## 16
                      4.2 612.53
             <NA>
## 17
             <NA>
                      4.3 199.99
                      4.3 349.99
## 18
             <NA>
## 19
             <NA>
                       NA 199.99
## 20
             <NA>
                       NA 149.99
## 21
                       NA 399.99
             < NA >
## 22
             <NA>
                       NA
                              NA
## 23
             < NA >
                       NA
                              NA
## 24
             <NA>
                       NA
                              NA
## 25
             <NA>
                       NA
                              NA
## 26
             <NA>
                       NA
                              NA
## 27
             <NA>
                       NA
                              NA
## 28
             <NA>
                       NA
                              NA
## 29
             <NA>
                       NA
```

```
## 30
             <NA>
                      NA
                             NA
print(df[[5]])
##
## 1
## 2
                                                                          Men's Eversoft Cotton Stay Tuck
## 3
                          Men's T-Shirt, Beefy-T Heavyweight Cotton Crewneck Tee, 1 or 2 Pack, Availabl
## 4
## 5
## 6
                         Men's Pocket Undershirt Pack, Cotton Crew Neck T-Shirt, Moisture Wicking Tee,
## 7
## 8
                                                                             Men's Crew T-Shirts, Multipa
## 9
## 10
                                                                   6 Pack, Men's Short Sleeve Crew Neck T
## 11
## 12
                                                               Unisex Adult Ultra Cotton T-Shirt, Style G
## 13
## 14
                                             Men's Cotton, Moisture-Wicking Crew Tee Undershirts, Multi-
## 15
## 16
                                                                        Men's Eversoft Cotton Stay Tucked
## 17
## 18
                                                                   Adult Heavyweight Short Sleeve Tee, St
## 19
## 20
                Men's Dri-Power Cotton Blend Short Sleeve Tees, Moisture Wicking, Odor Protection, UPF
## 21
## 22
                                                                 Men's Loose Fit Heavyweight Short-Sleeve
## 23
## 24
            5 Pack Men's Active Quick Dry Crew Neck T Shirts | Athletic Running Gym Workout Short Sleev
## 25
## 26
                                                                           Men's V-Neck T-Shirts, Multipa
## 27
## 28 Womens Tops Oversized Business Casual Shirts Loose Fit Short Sleeve Tshirts Summer Clothes Fashio
## 29
## 30
                             Workout Shirts for Men Short Sleeve Quick Dry Athletic Gym Active T Shirt M
##
      Description Rating Price
## 1
                          21.48
             < NA >
                     4.6
## 2
             <NA>
                     4.5
                           6.95
## 3
             <NA>
                     4.4 12.00
## 4
             <NA>
                     4.6 21.98
## 5
             <NA>
                     4.3
                          19.97
## 6
             <NA>
                     4.5 99.99
## 7
             <NA>
                     4.5 179.94
## 8
             <NA>
                     4.6 11.11
## 9
             <NA>
                     4.5
                          11.99
                     4.5 15.40
## 10
             <NA>
## 11
             <NA>
                     4.6 22.00
## 12
             <NA>
                     4.6 17.42
## 13
             <NA>
                     4.5
                          18.49
## 14
                     4.4
                           9.04
             < NA >
## 15
                     4.4
                          14.99
             <NA>
## 16
                           7.42
             < NA >
                     4.1
                          10.99
## 17
             <NA>
                     4.4
## 18
             <NA>
                     4.5 19.99
## 19
             <NA>
                     4.5 33.95
```

##	20	<na></na>	4.3	59.95
##	21	<na></na>	4.3	17.07
##	22	<na></na>	4.3	18.99
##	23	<na></na>	4.5	14.99
##	24	<na></na>	4.0	43.99
##	25	<na></na>	4.2	56.99
##	26	<na></na>	4.3	59.96
##	27	<na></na>	4.5	17.58
##	28	<na></na>	4.5	26.00
##	29	<na></na>	4.2	9.89
##	30	<na></na>	4.5	10.99

"