

# Lab Exercise 1

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```
install.packages("dplyr") install.packages("rvest") install.packages("httr") install.packages("polite")
```

```
1: BAGS
```

```
1-100
```

```
Bagdf <- data.frame()
```

```
library(polite)
```

```
## Warning: package 'polite' was built under R version 4.3.3
```

```
library(rvest)
```

```
## Warning: package 'rvest' was built under R version 4.3.3
```

```
library(httr)
```

```
## Warning: package 'httr' was built under R version 4.3.3
```

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.3.3
```

```
##
```

```
## 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
```

### ##Permission

```
BagLink1 <- "https://www.amazon.co.uk/s?k=bag&crd=3P005NOZNL8W&srefix=ba%2Caps%2C379&ref=nb_sb_noss_1"
session1 <- bow(BagLink1, user_agent = "Educational Purposes")
session1 <- scrape(session1)
```

### ##Name

```
BagName1 <- session1 %>%
  html_nodes(".s-featured-result-item h2, .s-widget-container > span h2") %>%
  html_text()
BagName1 <- BagName1[1:25]
BagName1
```

```
## [1] "The Drop Women's Avalon Small Tote Bag "
## [2] "Harry Potter Railway-Fashion Backpack "
## [3] "Targus Laptop Backpack, Lightweight with 20L Capacity, Multi-pocket, Padded Compartment Fits L
## [4] "Victorinox 611753 Spectra 3.0 Exp. Global Carry-On Bag Unisex Black "
## [5] "Amazon Basics Compact Laptop Shoulder Bag Carrying Case with Padded Strap and Zippered Accessor
## [6] "EASTPAK Unisex The One Crossbody Bag "
## [7] "PUMA Unisex Teamgoal 23 Backpack Core Backpack (pack of 1) "
## [8] "Weekend Bag, Overnight Bag Carry on Bag Holdalls Travel Bag for Women Gym Waterproof Weekender
## [9] "Extra Large Laundry Storage Checkered Shopping Bags 3 Pack, (60 x50 x25 cm) Strong and Durable
## [10] "Ikea STORSTOMMA (FRAKTA) Large 71L Pride Rainbow Reusable Carrier Bags - Set of 2 "
## [11] "Zuvo Large Handy Storage Bag with Web Handle, Waterproof 600D Oxford Fabric Jumbo Bag 60L | St
## [12] "PUMA Challenger Duffel Bag XS "
## [13] "The Drop Women's Melanie Bag "
## [14] "LUGG Travel Suitcase Set - Jetset 3-Piece Hard Shell Luggage, 20\" 25\" 29 Strong & Lightweight
## [15] "SIDORENKO Laptop Computer Shoulder Bag Messenger Bag "
## [16] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C
## [17] "Targus Laptop Backpack, Lightweight with 20L Capacity, Multi-pocket, Padded Compartment Fits L
## [18] "Kono Small Canvas Messenger Bag Men Shoulder Bags Travel Organizer Satchel Durable Multi-Pocke
## [19] "PUMA "
## [20] "Makukke Cord Bag Women's Shoulder Bags with Zip, Shopper Women's Large Tote Bag Handbag Should
## [21] "Vita Blake 480 x 380 x 80 mm Strong Expandable Kraft Mailing Bag (KMB1166) Pack of 100 "
## [22] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size "
## [23] "Cressi "
## [24] "MegaGear Genuine Leather and Fleece MacBook Bag Laptop Sleeve for MacBook Pro and MacBook Air C
## [25] "eBuyGB Pack of 10 Natural Cotton Shopping Tote Bags - Shoppers "
```

### ##Price

```
BagPrice1 <- session1 %>%
  html_nodes(".s-featured-result-item .a-size-base div.a-row:nth-of-type(1), div:nth-of-type(n+7) .s-wi
  html_text()
BagPrice1 <- BagPrice1[1:25]
BagPrice1
```

```
## [1] "£14.54£14.54" "£37.45£37.45"
## [3] "£23.47£23.47 RRP: £31.22£31.22" ""
## [5] "£18.94£18.94" "£18.00£18.00"
## [7] "£15.85£15.85" "£7.99£7.99 (£2.66£2.66/count)"
## [9] "" "£7.99£7.99"
## [11] "£14.99£14.99 RRP: £20.00£20.00" "£23.03£23.03 Was: £32.90£32.90"
## [13] "£109.99£109.99" "£19.70£19.70"
## [15] "£39.99£39.99" "£23.47£23.47 RRP: £31.22£31.22"
```

```
## [17] "£19.99£19.99" "£14.33£14.33 RRP: £17.04£17.04"
## [19] "£14.86£14.86" "£92.23£92.23"
## [21] "" "£64.99£64.99"
## [23] "£26.40£26.40" "£9.99£9.99"
## [25] "£9.50£9.50 RRP: £12.00£12.00"
```

#### *#Ratings*

```
BagRatings1 <- session1 %>%
  html_nodes (".s-featured-result-item span.a-icon-alt, .s-widget-container > span span.a-icon-alt") %>%
  html_text()
BagRatings1 <- BagRatings1[1:25]
BagRatings1
```

```
## [1] "4.1 out of 5 stars" "4.5 out of 5 stars" "4.6 out of 5 stars"
## [4] "5.0 out of 5 stars" "4.7 out of 5 stars" "4.5 out of 5 stars"
## [7] "4.5 out of 5 stars" "4.5 out of 5 stars" "4.2 out of 5 stars"
## [10] "4.4 out of 5 stars" "4.4 out of 5 stars" "4.4 out of 5 stars"
## [13] "4.1 out of 5 stars" "4.4 out of 5 stars" "4.7 out of 5 stars"
## [16] "4.6 out of 5 stars" "4.4 out of 5 stars" "4.3 out of 5 stars"
## [19] "4.5 out of 5 stars" "4.7 out of 5 stars" "4.8 out of 5 stars"
## [22] "4.4 out of 5 stars" "4.5 out of 5 stars" "4.6 out of 5 stars"
## [25] "4.6 out of 5 stars"
```

#### *#Number of Reviews*

```
BagNoOFReviews1 <- session1 %>%
  html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span span.s-underline-text") %>%
  html_text()
BagNoOFReviews1 <- BagNoOFReviews1[1:25]
BagNoOFReviews1
```

```
## [1] "4,558" "438" "4,006" "2" "52,413" "17,441" "4,230" "2,288"
## [9] "423" "126" "1,435" "199" "320" "617" "6,380" "4,006"
## [17] "585" "3,189" "836" "6" "28" "145" "256" "1,315"
## [25] "2,470"
```

```
bag_data <- data.frame(
  Name = BagName1,
  Price = BagPrice1,
  Ratings = BagRatings1,
  No_of_Reviews = BagNoOFReviews1
)
```

```
BagLink2 <- "https://www.amazon.co.uk/s?k=bag&page=2&crd=3P005N0ZKNL8W&qid=1707610316&sprefix=ba%2Caps"
```

```
session2.1 <- bow(BagLink2, user_agent = "Educational Purposes")
session2.1 <- scrape(session2.1)
```

#### *#Name*

```
BagName2 <- session2.1 %>%
  html_nodes (".s-featured-result-item h2, div:nth-of-type(n+5) .rush-component span.a-size-base-plus, .s-widget-container > span span.a-size-base-plus") %>%
  html_text()
BagName2 <- BagName2[1:25]
BagName2
```

```
## [1] "LUGG Travel Suitcase Set - Jetset 3-Piece Hard Shell Luggage, 20\" 25\" 29 Strong & Lightweight"
## [2] "Targus Laptop Backpack, Lightweight with 20L Capacity, Multi-pocket, Padded Compartment Fits L"
## [3] "Harry Potter Railway-Fashion Backpack  "
## [4] "SIDORENKO Laptop Computer Shoulder Bag Messenger Bag  "
## [5] "SIDORENKO Laptop Computer Shoulder Bag Messenger Bag"
## [6] "PUMA Women's Evercat Candidate Duffel Bags"
## [7] "Under Armour Unisex UA Undeniable 5.0 Duffel LG Backpack"
## [8] "DEWALT DG5102 Multi-Purpose Zip Bags, 2 Pack, Black"
## [9] "PUMA Challenger Duffel Bag"
## [10] "NIKE"
## [11] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size  "
## [12] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size"
## [13] "Cressi  "
## [14] "Cressi"
## [15] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C"
## [16] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C"
## [17] "Victorinox 611753 Spectra 3.0 Exp. Global Carry-On Bag Unisex Black  "
## [18] "Victorinox 611753 Spectra 3.0 Exp. Global Carry-On Bag Unisex Black"
## [19] "Eastpak Jr Messenger Bag, 33 cm, 11.5 L, Black (Black)  "
## [20] "Eastpak Jr Messenger Bag, 33 cm, 11.5 L, Black (Black)"
## [21] "Disney Stitch Drawstring Bag Girls PE Kit Gym Bag Boys School Trainer Swim Bag Kids School Bac"
## [22] "Disney Stitch Drawstring Bag Girls PE Kit Gym Bag Boys School Trainer Swim Bag Kids School Bac"
## [23] "Travelon Anti-Theft Heritage Crossbody Bag, Indigo  "
## [24] "Travelon Anti-Theft Heritage Crossbody Bag, Indigo"
## [25] "Bagbase retro Shoulder Bag in Black and White  "
```

#### #Price

```
BagPrice2 <- session2.1 %>%
  html_nodes(".s-featured-result-item .a-size-base div:nth-of-type(1), .s-widget-container > span div.a")
  html_text()
BagPrice2 <- BagPrice2[1:25]
BagPrice2
```

```
## [1] "£109.99£109.99" "£23.47£23.47 RRP: £31.22£31.22"
## [3] "RRP: £31.22£31.22" "£37.45£37.45"
## [5] "£19.70£19.70" "£25.31£25.31"
## [7] "£11.00£11.00 RRP: £11.99£11.99" "£29.95£29.95 RRP: £45.00£45.00"
## [9] "£22.34£22.34 Was: £24.95£24.95" "£17.99£17.99 RRP: £26.00£26.00"
## [11] "£28.94£28.94 RRP: £32.99£32.99" ""
## [13] "£64.99£64.99" "£39.99£39.99"
## [15] "" "£37.00£37.00"
## [17] "" "£34.70£34.70"
## [19] "" "£92.23£92.23"
## [21] "£20.00£20.00" "£7.26£7.26"
## [23] "£26.40£26.40" "£37.16£37.16"
## [25] "£22.81£22.81 Was: £23.71£23.71"
```

#### #Ratings

```
BagRatings2 <- session2.1 %>%
  html_nodes (".s-featured-result-item span.a-icon-alt, .s-widget-container > span div.a-section:nth-of-t")
  html_text()
BagRatings2 <- BagRatings2[1:25]
BagRatings2
```

```
## [1] "4.4 out of 5 stars" "4.6 out of 5 stars" "4.5 out of 5 stars"
## [4] "4.7 out of 5 stars" "4.8 out of 5 stars" "4.5 out of 5 stars"
## [7] "4.7 out of 5 stars" "4.4 out of 5 stars" "4.6 out of 5 stars"
## [10] "4.8 out of 5 stars" "4.4 out of 5 stars" "4.7 out of 5 stars"
## [13] "5.0 out of 5 stars" "4.4 out of 5 stars" "4.4 out of 5 stars"
## [16] "4.4 out of 5 stars" "4.5 out of 5 stars" "4.7 out of 5 stars"
## [19] "4.5 out of 5 stars" "4.0 out of 5 stars" "4.5 out of 5 stars"
## [22] "4.4 out of 5 stars" "4.6 out of 5 stars" "4.7 out of 5 stars"
## [25] "4.4 out of 5 stars"
```

#### *#Number of Reviews*

```
BagNoOFReviews2 <- session2.1 %>%
  html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span div.a-section:ntl
  html_text()
BagNoOFReviews2 <- BagNoOFReviews2[1:25]
BagNoOFReviews2
```

```
## [1] "617" "4,006" "438" "1,038" "15,228" "950" "4,169" "189"
## [9] "1,241" "28" "145" "6,380" "2" "3,290" "95" "1,127"
## [17] "679" "6" "7,904" "14" "256" "15,875" "674" "22,663"
## [25] "326"
```

```
bag_data2 <- data.frame(
  Name = BagName2,
  Price = BagPrice2,
  Ratings = BagRatings2,
  No_of_Reviews = BagNoOFReviews2
)
```

```
BagLink3 <- "https://www.amazon.co.uk/s?k=bag&page=3&crid=3P005N0ZMKL8W&qid=1707612635&srefix=ba%2Caps
session3.1 <- bow(BagLink3, user_agent = "Educational Purposes")
session3.1 <- scrape(session3.1)
```

#### *#Name*

```
BagName3 <-session3.1 %>%
  html_nodes(".s-widget-container > span span.a-size-base-plus, div:nth-of-type(n+8) .s-widget-container
  html_text()
BagName3 <- BagName3[1:25]
BagName3
```

```
## [1] "Responsible Owner Dog Poo Bags, 80 Environmentally Friendly, Extra Thick, Super Strong, 100% B
## [2] "Kipling Synthetic Arto S Crossbody Bags"
## [3] "Tommee Tippee Baby Sleeping Bag for Newborns, The Original Grobag Swaddle Bag, Hip-Healthy Desig
## [4] "Tommee Tippee Baby Sleeping Bag for Newborns, The Original Grobag Swaddle Bag, Hip-Healthy Desig
## [5] "Ted Baker Men's Nevver Document Bag, One Size "
## [6] "Ted Baker Men's Nevver Document Bag, One Size"
## [7] "Joules Coast Softside Collection Unisex Crossbody Bag With Adjustable Straps "
```

```
## [8] "Joules Coast Softside Collection Unisex Crossbody Bag With Adjustable Straps"
## [9] "iSOUL Strong Large Grey Mailing Postal Postage Bags 12 x 16\" Packaging Mailers, iSOUL [Use in
## [10] "iSOUL Strong Large Grey Mailing Postal Postage Bags 12 x 16\" Packaging Mailers, iSOUL [Use in
## [11] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size"
## [12] "Cressi"
## [13] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C
## [14] "Victorinox 611753 Spectra 3.0 Exp. Global Carry-On Bag Unisex Black"
## [15] "SWTMERRY- Sleeping Bag 3-4 Seasons (Summer, Spring, Fall, Winter) Warm & Cool Weather - Lightw
## [16] "SWTMERRY- Sleeping Bag 3-4 Seasons (Summer, Spring, Fall, Winter) Warm & Cool Weather - Lightw
## [17] "Michael Kors Cora Medium Signature PVC Zip Pouchette Crossbody Bag Light Cream, Lt Cream Multi
## [18] "Michael Kors Cora Medium Signature PVC Zip Pouchette Crossbody Bag Light Cream, Lt Cream Multi
## [19] "Toastabags Standard Roasting Bags, Transparent, 25 x 38 cm, Pack of 50  "
## [20] "Toastabags Standard Roasting Bags, Transparent, 25 x 38 cm, Pack of 50"
## [21] "Adidas Tiro Duffle Bag Black/White One Size  "
## [22] "Adidas Tiro Duffle Bag Black/White One Size"
## [23] "Vita Blake 480 x 380 x 80 mm Strong Expandable Kraft Mailing Bag (KMB1166) Pack of 100"
## [24] "Urban Classics Women's Tb2145 Festival Bag, Boy"
## [25] "Puma Unisex's teamGOAL 23 Teambag S Sports Bag, Red Black, OSFA"
```

#### #Price

```
BagPrice3 <- session3.1 %>%
  html_nodes(".s-widget-container > span .a-color-base div.a-row:nth-of-type(1), div:nth-of-type(n+57) > span") %>%
  html_text()
BagPrice3 <- BagPrice3[1:25]
BagPrice3
```

```
## [1] "£4.15£4.15"
## [2] "£43.52£43.52 RRP: £58.00£58.00"
## [3] "£19.99£19.99 Was: £21.90£21.90"
## [4] ""
## [5] ""
## [6] "£7.49£7.49 (£0.07£0.07/count)"
## [7] "£33.14£33.14"
## [8] ""
## [9] "£4.75£4.75 (£0.10£0.10/count) RRP: £4.99£4.99"
## [10] "£36.95£36.95 RRP: £38.00£38.00"
## [11] "£31.00£31.00"
## [12] "£7.99£7.99 (£1.33£1.33/count)"
## [13] "£46.52£46.52 RRP: £77.00£77.00"
## [14] ""
## [15] "£39.96£39.96"
## [16] ""
## [17] "£52.10£52.10 Was: £61.33£61.33"
## [18] "£34.51£34.51"
## [19] "£53.35£53.35"
## [20] "£126.92£126.92"
## [21] "£96.85£96.85"
## [22] "£18.00£18.00 RRP: £21.38£21.38"
## [23] "£29.99£29.99"
## [24] "£4.89£4.89 (£0.10£0.10/count) RRP: £5.99£5.99"
## [25] "£20.98£20.98"
```

```

#Ratings
BagRatings3 <- session3.1 %>%
html_nodes (".s-widget-container > span span.a-icon-alt, div:nth-of-type(n+12) .rush-component span.a-i
html_text()
BagRatings3 <- BagRatings3[1:25]
BagRatings3

```

```

## [1] "4.7 out of 5 stars" "4.5 out of 5 stars" "4.5 out of 5 stars"
## [4] "4.2 out of 5 stars" "4.5 out of 5 stars" "4.7 out of 5 stars"
## [7] "4.8 out of 5 stars" "4.4 out of 5 stars" "4.7 out of 5 stars"
## [10] "5.0 out of 5 stars" "4.4 out of 5 stars" "5.0 out of 5 stars"
## [13] "4.6 out of 5 stars" "4.5 out of 5 stars" "4.7 out of 5 stars"
## [16] "4.0 out of 5 stars" "4.5 out of 5 stars" "4.5 out of 5 stars"
## [19] "4.6 out of 5 stars" "4.3 out of 5 stars" "4.6 out of 5 stars"
## [22] "4.8 out of 5 stars" "4.5 out of 5 stars" "4.5 out of 5 stars"
## [25] "4.5 out of 5 stars"

```

```

#Number of Reviews
BagNoOFReviews3 <- session3.1 %>%
html_nodes (".s-widget-container > span span.s-underline-text, div:nth-of-type(n+12) .rush-component sp
html_text()
BagNoOFReviews3 <- BagNoOFReviews3[1:25]
BagNoOFReviews3

```

```

## [1] "3,133" "248" "183" "25" "15" "648" "28" "145"
## [9] "6,380" "2" "12,501" "4" "3,168" "104" "6" "14"
## [17] "7,904" "256" "3,799" "7,038" "2,492" "6" "2" "121"
## [25] "483"

```

```

bag_data3 <- data.frame(
  Name = BagName3,
  Price = BagPrice3,
  Ratings = BagRatings3,
  No_of_Reviews = BagNoOFReviews3
)

```

```

BagLink4 <- "https://www.amazon.co.uk/s?k=bag&page=6&crid=3P005N0ZMKL8W&qid=1707960446&srefix=ba%2Caps
session4.1 <- bow(BagLink4, user_agent = "Educational Purposes")
session4.1 <- scrape(session4.1)

```

```

#Name
BagName4 <-session4.1 %>%
html_nodes(".s-featured-result-item span.a-size-base-plus, div:nth-of-type(n+3) span.a-size-base-plus,
html_text()
BagName4 <- BagName4[1:25]
BagName4

```

```
## [1] "LUGG Travel Suitcase Set - Jetset 3-Piece Hard Shell Luggage, 20\" 25\" 29 Strong & Lightweight"
## [2] "SIDORENKO Laptop Computer Shoulder Bag Messenger Bag"
## [3] "Harry Potter Railway-Fashion Backpack "
## [4] "Harry Potter Railway-Fashion Backpack"
## [5] "Targus Laptop Backpack, Lightweight with 20L Capacity, Multi-pocket, Padded Compartment Fits L"
## [6] "Targus Laptop Backpack, Lightweight with 20L Capacity, Multi-pocket, Padded Compartment Fits L"
## [7] "Bags On Board Dog Poo Bags | Strong, Leak Proof Dog Waste Bags | Triple Berry Scent | 140 Bags"
## [8] "Bags On Board Dog Poo Bags | Strong, Leak Proof Dog Waste Bags | Triple Berry Scent | 140 Bags"
## [9] "JACLAB Weekend Bag "
## [10] "JACLAB Weekend Bag"
## [11] "Boys Star Wars Drawstring Gym Bag Darth Vader Storm Trooper Sports Swimming PE Kit Rucksack "
## [12] "Boys Star Wars Drawstring Gym Bag Darth Vader Storm Trooper Sports Swimming PE Kit Rucksack"
## [13] "Longridge 6\" Weekend Stand Bag "
## [14] "Longridge 6\" Weekend Stand Bag"
## [15] "HUGO Men's Ethon 2.0n_ns Reporter_with_Zip, 15x5x20 cm "
## [16] "HUGO Men's Ethon 2.0n_ns Reporter_with_Zip, 15x5x20 cm"
## [17] "Maxwell & Williams Pete Cromer Large Tote Bag, Kangaroo Print, 100% Cotton, 42 x 41 cm "
## [18] "Maxwell & Williams Pete Cromer Large Tote Bag, Kangaroo Print, 100% Cotton, 42 x 41 cm"
## [19] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size "
## [20] "Kids Character White Faux Leather Shoulder Strap Messenger Bag One Size"
## [21] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C"
## [22] "TARION Camera Backpack, Photography Backpack with Large Capacity, Padded Insert, 15'' Laptop C"
## [23] "Cressi "
## [24] "Cressi"
## [25] "Victorinox 611753 Spectra 3.0 Exp. Global Carry-On Bag Unisex Black "
```

*#Price*

```
BagPrice4 <- session4.1 %>%
  html_nodes(".s-featured-result-item .a-size-base div:nth-of-type(1), div:nth-of-type(n+4) .a-color-base") %>%
  html_text()
BagPrice4 <- BagPrice4[1:25]
BagPrice4
```

```
## [1] "£109.99£109.99"
## [2] "£19.70£19.70"
## [3] "£37.45£37.45"
## [4] "£23.47£23.47 RRP: £31.22£31.22"
## [5] "RRP: £31.22£31.22"
## [6] "£5.05£5.05 (£0.04£0.04/count) RRP: £6.29£6.29"
## [7] "£50.00£50.00"
## [8] ""
## [9] ""
## [10] "£64.99£64.99 RRP: £69.00£69.00"
## [11] "£11.99£11.99 RRP: £15.99£15.99"
## [12] ""
## [13] "£39.99£39.99"
## [14] "£64.99£64.99"
## [15] ""
## [16] "£66.28£66.28"
## [17] "£33.34£33.34"
## [18] "£77.00£77.00"
## [19] "£17.99£17.99"
## [20] "£7.26£7.26"
## [21] "£26.40£26.40"
```



```
## [22] "£92.23£92.23"
## [23] "£20.00£20.00"
## [24] "£23.03£23.03 Was: £32.90£32.90"
## [25] ""
```

```
#Ratings
BagRatings4 <- session4.1 %>%
  html_nodes (".aok-align-bottom span") %>%
  html_text()
BagRatings4 <- BagRatings4[1:25]
BagRatings4
```

```
## [1] "4.4 out of 5 stars" "4.5 out of 5 stars" "4.6 out of 5 stars"
## [4] "4.7 out of 5 stars" "4.3 out of 5 stars" "4.3 out of 5 stars"
## [7] "4.3 out of 5 stars" "4.6 out of 5 stars" "4.7 out of 5 stars"
## [10] "4.8 out of 5 stars" "4.7 out of 5 stars" "4.4 out of 5 stars"
## [13] "5.0 out of 5 stars" "4.2 out of 5 stars" "4.7 out of 5 stars"
## [16] "4.5 out of 5 stars" "5.0 out of 5 stars" "4.0 out of 5 stars"
## [19] "4.5 out of 5 stars" "4.7 out of 5 stars" "4.5 out of 5 stars"
## [22] "4.3 out of 5 stars" "4.9 out of 5 stars" "4.5 out of 5 stars"
## [25] "4.8 out of 5 stars"
```

```
#Number of Reviews
BagNoOFReviews4 <- session4.1 %>%
  html_nodes ("span.s-underline-text") %>%
  html_text()
BagNoOFReviews4 <- BagNoOFReviews4[1:25]
BagNoOFReviews4
```

```
## [1] "617" "438" "4,006" "6,409" "3" "28" "420" "3" "76"
## [10] "28" "6,380" "145" "2" "13" "66" "15" "2" "14"
## [19] "256" "6" "7,904" "961" "265" "1,568" "2,132"
```

```
bag_data4 <- data.frame(
  Name = BagName4,
  Price = BagPrice4,
  Ratings = BagRatings4,
  No_of_Reviews = BagNoOFReviews4
)
```

```
Bind <- rbind(bag_data, bag_data2, bag_data3, bag_data4)
#View(Bind)

write.csv(Bind, file = "Bags.csv",)
```

## 2:LIPSTICK

```
df1 <- data.frame()

library(polite)
library(rvest)
```

```

library(httr)
library(dplyr)

##Permission
Link1 <- "https://www.amazon.co.uk/s?k=lipstick&crd=2FSFXK9TCDPDN&sprefix=lipst%2Caps%2C435&ref=nb_sb_
session1 <- bow(Link1, user_agent = "Educational Purposes")
session1 <- scrape(session1)

#Name
Name1 <- session1 %>%
html_nodes("div:nth-of-type(n+3) .rush-component h2, div:nth-of-type(n+4) .rush-component span.a-size-b
html_text()
Name1 <- Name1[1:25]
Name1

```

```

## [1] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [2] "Rimmel London Lasting Finish Bullets (Satin) - 006 Pink Blush "
## [3] "Rimmel London Lasting Finish Bullets (Satin) - 006 Pink Blush"
## [4] "Joan Collins Timeless Beauty Divine Lips Lipstick 3.5 g, Fontaine "
## [5] "Joan Collins Timeless Beauty Divine Lips Lipstick 3.5 g, Fontaine"
## [6] "Maybelline New York Color Sensational The Creams, Nourishing Lipstick, Enriched with Shea Butter
## [7] "Bourjois Lipstick Velvet 19 Place Des Roses 2.4G "
## [8] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [9] "Max Factor Velvet Mattes Lipstick, Infused with Oils and Butters, 35 Love, 3.5 g "
## [10] "Rimmel London Lasting Finish Lipstick Nude Collection, 45 Rose Nude, 4g, Packaging May Vary "
## [11] "Lancome L'absolu Mademoiselle Shine 301 Oh My Smile! Lipstick 3.2g "
## [12] "L'Oreal Paris Rouge Signature Matte Liquid Lipstick, Ultra-Matte Lip Stain, Up To 24 Hours of C
## [13] "Rimmel London Lasting Finish Bullets (Satin) - 008 Tender Mauve "
## [14] "Kiwi Seed Oil Lip Conditioner and Hydrating Lip Balm - Vitamin C rich Lip Care -
Dry Lips, Cracked Lips and Chapped Lips - 4g "
## [15] "Kiwi Seed Oil Lip Conditioner and Hydrating Lip Balm - Vitamin C rich Lip Care -
Dry Lips, Cracked Lips and Chapped Lips - 4g"
## [16] "KIKO Milano Lasting Matte Veil Liquid Lip Colour 13 | Long-Lasting Liquid Lipstick With A Matte
## [17] "KIKO Milano Lasting Matte Veil Liquid Lip Colour 13 | Long-Lasting Liquid Lipstick With A Matte
## [18] "e.l.f., Lip Plumping Gloss, Hydrating, Nourishing, Invigorating, High-Shine, Plumps, Volumizes
## [19] "e.l.f., Lip Plumping Gloss, Hydrating, Nourishing, Invigorating, High-Shine, Plumps, Volumizes
## [20] "Revlon ColorStay Matte Lite Crayon - Tread Lightly "
## [21] "Revlon ColorStay Matte Lite Crayon - Tread Lightly"
## [22] "Charlotte Tilbury Matte Revolution Lipstick Pillow Talk "
## [23] "Maybelline New York Lip Colour, Smudge-free, Long Lasting Up To 16h, Liquid Lipstick, Shine Fi
## [24] "Rimmel London Lasting Finish Lipstick Cosmetic 4g Shade: 070 Airy Fairy "
## [25] "Revlon Super Lustrous Lipstick, High Impact Lipcolour with Moisturising Creamy Formula, Infused

```

```

#Price
Price1 <- session1 %>%
html_nodes(".s-featured-result-item .a-color-base div.a-row:nth-of-type(1), .s-widget-container > span
html_text()
Price1 <- Price1[1:25]
Price1

```

```

## [1] "£8.18£8.18 (£16.36£16.36/10 ml) RRP: £11.99£11.99"
## [2] "£7.99£7.99 (£7.99£7.99/count) RRP: £12.38£12.38"
## [3] "£5.82£5.82 (£14.55£14.55/10 g)"

```

```
## [4] "£21.00£21.00 (£21.00£21.00/count)"
## [5] "£7.99£7.99 (£7.99£7.99/count)"
## [6] "£12.69£12.69 (£52.88£52.88/10 g)"
## [7] "£6.99£6.99 (£6.99£6.99/count)"
## [8] "£4.55£4.55 (£13.00£13.00/10 g)"
## [9] ""
## [10] "£15.37£15.37 (£15.37£15.37/count) Was: £15.95£15.95"
## [11] "£10.10£10.10 (£10.10£10.10/count) RRP: £10.99£10.99"
## [12] "£5.93£5.93 (£14.83£14.83/10 g)"
## [13] "£13.00£13.00 (£13.00£13.00/count)"
## [14] "£9.38£9.38 (£23.45£23.45/10 ml) Was: £9.99£9.99"
## [15] "£6.97£6.97 (£6.97£6.97/count)"
## [16] "£10.00£10.00 (£10.00£10.00/count)"
## [17] ""
## [18] "£11.11£11.11 (£26.45£26.45/10 ml) RRP: £11.99£11.99"
## [19] ""
## [20] "£8.99£8.99 (£8.99£8.99/count)"
## [21] "£5.00£5.00 (£10.00£10.00/10 g)"
## [22] "£16.00£16.00 (£16.00£16.00/count)"
## [23] "£4.99£4.99 (£4.99£4.99/count)"
## [24] "£11.79£11.79 (£11.79£11.79/count)"
## [25] "£12.99£12.99 (£21.65£21.65/10 ml)"
```

#### *#Ratings*

```
Ratings1 <- session1 %>%
  html_nodes (".s-featured-result-item span.a-icon-alt, .s-widget-container > span span.a-icon-alt") %>%
  html_text()
Ratings1 <- Ratings1[1:25]
Ratings1
```

```
## [1] "4.3 out of 5 stars" "4.4 out of 5 stars" "4.4 out of 5 stars"
## [4] "4.2 out of 5 stars" "4.3 out of 5 stars" "4.3 out of 5 stars"
## [7] "4.4 out of 5 stars" "4.4 out of 5 stars" "4.4 out of 5 stars"
## [10] "4.7 out of 5 stars" "4.2 out of 5 stars" "4.5 out of 5 stars"
## [13] "4.1 out of 5 stars" "4.2 out of 5 stars" "4.2 out of 5 stars"
## [16] "4.3 out of 5 stars" "4.4 out of 5 stars" "4.3 out of 5 stars"
## [19] "4.3 out of 5 stars" "4.3 out of 5 stars" "4.2 out of 5 stars"
## [22] "3.6 out of 5 stars" "3.4 out of 5 stars" "4.2 out of 5 stars"
## [25] "4.4 out of 5 stars"
```

#### *#Number of Reviews*

```
NoOfReviews1 <- session1 %>%
  html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span span.s-underline-
  html_text()
NoOfReviews1 <- NoOfReviews1[1:25]
NoOfReviews1
```

```
## [1] "787"      "4,493"    "3,461"    "164"      "14,170"   "1,347"    "20,438"   "1,323"
## [9] "11,218"   "5"        "9,575"    "15,458"   "50"       "70"       "16,783"   "1,694"
## [17] "1,530"    "14,465"   "133"      "1,166"    "49,741"   "5"        "5"        "475"
## [25] "5,698"
```

```
data1 <- data.frame(
  Name = Name1,
  Price = Price1,
  Ratings = Ratings1,
  No_of_Reviews = NoOfReviews1
)
```

```
#View(data1)
```

```
df2 <- data.frame()
```

```
library(polite)
library(rvest)
library(httr)
library(dplyr)
```

```
##Permission
```

```
Link2 <- "https://www.amazon.co.uk/s?k=lipstick&page=2&crid=2FSFXK9TCDPDN&qid=1710719466&srefix=lipst%"
```

```
session2 <- bow(Link2, user_agent = "Educational Purposes")
```

```
session2 <- scrape(session2)
```

```
#Name
```

```
Name2 <- session2 %>%
```

```
html_nodes(".s-featured-result-item span.a-size-base-plus, .s-widget-container > span span.a-size-base-")
```

```
html_text()
```

```
Name2 <- Name2[1:25]
```

```
Name2
```

```
## [1] "L'Oréal Paris Liquid Lipstick, Intense Colour, Longwear Matte Formula with Hyaluronic Acid, Tr
## [2] "Kiwi Seed Oil Lip Conditioner and Hydrating Lip Balm - Vitamin C rich Lip Care -
Dry Lips, Cracked Lips and Chapped Lips - 4g"
## [3] "3INA MAKEUP - The Color Lip Glow 170 - Coral Red Colour Lip Balm with Shea Butter to Moisturise
## [4] "Rimmel London Lasting Finish Bullets (Satin) - 006 Pink Blush"
## [5] "Revlon Ultra HD Gel Lipcolor, Rhubarb"
## [6] "Revlon ColorStay Suede Ink Lipstick, Tunnel Vision"
## [7] "KIKO Milano Powder Power Lipstick 16 | Lightweight lipstick with a matte finish"
## [8] "L'Oreal Paris Infallible 24HR 2 Step Lipstick 117 Perpetual Brown"
## [9] "3INA MAKEUP - The Longwear Lipstick 503 - Nude Long Lasting Lipstick - Matte Lipstick with Hyal
## [10] "Clinique - 'Almost' lipstick 1.9g "
## [11] "Clinique - 'Almost' lipstick 1.9g"
## [12] "KIKO Milano Lasting Matte Veil Liquid Lip Colour 13 | Long-Lasting Liquid Lipstick With A Matte
## [13] "e.l.f., Lip Plumping Gloss, Hydrating, Nourishing, Invigorating, High-Shine, Plumps, Volumizes
## [14] "Revlon Super Lustrous Lipstick, High Impact Lipcolour with Moisturising Creamy Formula, Infused
## [15] "Revlon Super Lustrous Lipstick, High Impact Lipcolour with Moisturising Creamy Formula, Infused
## [16] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [17] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [18] "Sleek MakeUP Lip VIP Lipstick Steal The Limelight 3.6g "
## [19] "Sleek MakeUP Lip VIP Lipstick Steal The Limelight 3.6g"
## [20] "Rimmel London Moisture Renew Lipstick, 36 As You Want Victoria "
## [21] "Rimmel London Moisture Renew Lipstick, 36 As You Want Victoria"
## [22] "Bourjois Sweet Duo Lipstick, Number 03, Grenad-in, 1 g "
## [23] "Bourjois Sweet Duo Lipstick, Number 03, Grenad-in, 1 g"
## [24] "L'Oreal Color Riche Lipstick Colour: 287 Sparkling Amethyst "
```

```
## [25] "L'Oreal Color Riche Lipstick Colour: 287 Sparkling Amethyst"
```

```
#Price
```

```
Price2 <- session2 %>%
```

```
  html_nodes("div:nth-of-type(n+12) .s-widget-container > span .a-color-base div.a-row:nth-of-type(1),  
  html_text()
```

```
Price2 <- Price2[1:25]
```

```
Price2
```

```
## [1] ""  
## [2] "£6.97£6.97 (£6.97£6.97/count)"  
## [3] "£8.99£8.99 (£8.99£8.99/count)"  
## [4] "£7.99£7.99 (£7.99£7.99/count) RRP: £12.38£12.38"  
## [5] "£3.50£3.50 (£3.50£3.50/count)"  
## [6] ""  
## [7] "£7.31£7.31 (£7.31£7.31/count)"  
## [8] ""  
## [9] "£21.00£21.00 (£21.00£21.00/count)"  
## [10] "£10.00£10.00 (£10.00£10.00/count)"  
## [11] ""  
## [12] "£12.99£12.99 (£21.65£21.65/10 ml)"  
## [13] "£6.99£6.99 (£6.99£6.99/count)"  
## [14] "£9.00£9.00 (£29.03£29.03/10 g)"  
## [15] ""  
## [16] "£6.99£6.99 (£6.99£6.99/count)"  
## [17] "£11.79£11.79 (£11.79£11.79/count)"  
## [18] "£10.00£10.00 (£1.11£1.11/count) RRP: £10.99£10.99"  
## [19] "£10.00£10.00 (£28.57£28.57/10 g)"  
## [20] "£7.00£7.00 (£8.75£8.75/10 ml)"  
## [21] ""  
## [22] ""  
## [23] "£7.35£7.35 (£16.33£16.33/10 g) RRP: £8.25£8.25"  
## [24] "£3.98£3.98 (£3.98£3.98/count)"  
## [25] "£18.40£18.40 (£54.12£54.12/10 g) RRP: £19.00£19.00"
```

```
#Ratings
```

```
Ratings2 <- session2 %>%
```

```
  html_nodes(".s-featured-result-item span.a-icon-alt, .s-widget-container > span span.a-icon-alt") %>%  
  html_text()
```

```
Ratings2 <- Ratings2[1:25]
```

```
Ratings2
```

```
## [1] "4.3 out of 5 stars" "4.1 out of 5 stars" "4.5 out of 5 stars"  
## [4] "4.4 out of 5 stars" "4.3 out of 5 stars" "4.1 out of 5 stars"  
## [7] "4.2 out of 5 stars" "4.4 out of 5 stars" "3.8 out of 5 stars"  
## [10] "4.5 out of 5 stars" "4.2 out of 5 stars" "4.2 out of 5 stars"  
## [13] "4.3 out of 5 stars" "4.4 out of 5 stars" "3.8 out of 5 stars"  
## [16] "4.4 out of 5 stars" "3.8 out of 5 stars" "4.5 out of 5 stars"  
## [19] "4.2 out of 5 stars" "4.3 out of 5 stars" "4.4 out of 5 stars"  
## [22] "4.4 out of 5 stars" "4.5 out of 5 stars" "4.6 out of 5 stars"  
## [25] "4.6 out of 5 stars"
```

```

#Number of Reviews
NoOFReviews2 <- session2 %>%
html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span span.s-underline-
html_text()
NoOFReviews2 <- NoOFReviews2[1:25]
NoOFReviews2

```

```

## [1] "787"      "50"      "82"      "3,461"   "4,082"   "147"     "359"     "3,551"
## [9] "309"      "3,865"   "70"      "16,783"  "1,166"   "4,493"   "194"     "218"
## [17] "266"      "99"      "164"     "1,694"   "5,698"   "772"     "1,254"   "363"
## [25] "246"

```

```

data2 <- data.frame(
  Name = Name2,
  Price = Price2,
  Ratings = Ratings2,
  No_of_Reviews = NoOFReviews1
)

```

```

#View(data2)

```

```

df3 <- data.frame()

```

```

library(polite)
library(rvest)
library(httr)
library(dplyr)

```

```

##Permission

```

```

Link3 <- "https://www.amazon.co.uk/s?k=lipstick&page=3&crd=2FSFXK9TCDPDN&qid=1710720758&sprefix=lipst%
session3 <- bow(Link3, user_agent = "Educational Purposes")
session3 <- scrape(session3)

```

```

#Name

```

```

Name3 <- session3 %>%
html_nodes(".s-featured-result-item h2, div:nth-of-type(n+8) .s-widget-container > span h2, .widgetIdse
html_text()
Name3 <- Name3[1:25]
Name3

```

```

## [1] "L'Oréal Paris Liquid Lipstick, Intense Colour, Longwear Matte Formula with Hyaluronic Acid, Tr
## [2] "Kiwi Seed Oil Lip Conditioner and Hydrating Lip Balm - Vitamin C rich Lip Care -
Dry Lips, Cracked Lips and Chapped Lips - 4g "
## [3] "Joan Collins Timeless Beauty Divine Lips Lipstick 3.5 g, Fontaine "
## [4] "KIKO Milano Lasting Matte Veil Liquid Lip Colour 13 | Long-Lasting Liquid Lipstick With A Matte
## [5] "Maybelline New York Lip Colour, Smudge-free, Long Lasting up to 16h, Liquid Lipstick, Shine Fi
## [6] "Revlon ColorStay Suede Ink Lipstick, Feed The Flame "
## [7] "Petansy 3 Packs Aloe Vera Lipstick, Lips Moisturizer Long Lasting Nutritious Lip Balm Magic Ter
## [8] "Revlon Super Lustrous Lipstick, Rum Raisin, 0.15 Ounce "
## [9] "Revlon ColorStay Matte Lite Crayon - Tread Lightly "
## [10] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [11] "HELAN Moisturizing Lipstick (82RI6 Hazelnut) "
## [12] "Jullystar New cosmetics Christmas beauty lipstick Long lasting, non-stick to cup, matte lipstick

```

```
## [13] "L'Oreal Paris Infallible Very Matte Lip Crayon Lipstick, Smudge Proof, Red Lipstick, 103 Maple
## [14] "Maybelline Metallic Foil Lipstick, 110 Calypso, 5 ml  "
## [15] "Revlon ColorStay Suede Ink Lipstick, Gut Instinct  "
## [16] "Rimmel Lasting Finish Lipstick By Kate Matte Shade 114  "
## [17] "KIKO Milano Unlimited Double Touch 105 | Liquid lipstick with a bright finish in a two-step ap
## [18] "e.l.f., Lip Plumping Gloss, Hydrating, Nourishing, Invigorating, High-Shine, Plumps, Volumizes
## [19] "Lipstick Black Women,Velvet Lipstick - Velvet Matte Lipsticks - Highly Pigmented Black Lipstic
## [20] "Julystar Matte matte lip glaze lipstick set, color lipstick, popular makeup lip gloss set (B G
## [21] "Joan Collins Timeless Beauty Divine Lips Lipstick 3.5 g, Fontaine  "
## [22] "THE LIPSTICK VELVET RED LIPSTICK  "
## [23] "L'Oréal Paris Make Up Designer Color Riche Lipstick Mat 346 Scarlet Silhouette  "
## [24] "Barry M Cosmetics Velvet Lip Paint, Bittersweet, 1 count  "
## [25] "Colour Sensational Lipstick by Maybelline - 240 Galactic Mauve  "
```

#### #Price

```
Price3 <- session3 %>%
  html_nodes(".s-featured-result-item div:nth-of-type(n+3) .a-color-base div.a-row:nth-of-type(1), div:
  html_text()
Price3 <- Price3[1:25]
Price3
```

```
## [1] "£8.18£8.18 (£16.36£16.36/10 ml) RRP: £11.99£11.99"
## [2] "£13.00£13.00 (£13.00£13.00/count)"
## [3] "£21.00£21.00 (£21.00£21.00/count)"
## [4] "£9.38£9.38 (£23.45£23.45/10 ml) Was: £9.99£9.99"
## [5] "£11.95£11.95 (£28.45£28.45/10 ml)"
## [6] "£7.78£7.78 (£31.12£31.12/10 g) RRP: £9.99£9.99"
## [7] ""
## [8] ""
## [9] "£10.00£10.00 (£10.00£10.00/count)"
## [10] "£7.99£7.99 (£7.99£7.99/count) RRP: £12.38£12.38"
## [11] "£16.50£16.50 (£16.50£16.50/count)"
## [12] "£4.99£4.99 (£4.99£4.99/count)"
## [13] "£9.99£9.99 (£9.99£9.99/count)"
## [14] "£5.37£5.37 (£10.74£10.74/10 ml)"
## [15] "£9.99£9.99 (£39.96£39.96/10 g)"
## [16] ""
## [17] "£12.99£12.99 (£21.65£21.65/10 ml)"
## [18] "£6.97£6.97 (£6.97£6.97/count)"
## [19] "£21.00£21.00 (£21.00£21.00/count)"
## [20] ""
## [21] ""
## [22] "£4.99£4.99 (£4.99£4.99/count)"
## [23] "£7.99£7.99 (£18.16£18.16/10 g)"
## [24] "£9.99£9.99 (£39.96£39.96/10 g)"
## [25] ""
```

#### #Ratings

```
Ratings3 <- session3 %>%
  html_nodes (".s-featured-result-item span.a-icon-alt, .s-widget-container > span span.a-icon-alt") %>%
  html_text()
Ratings3 <- Ratings3[1:25]
Ratings3
```

```
## [1] "4.3 out of 5 stars" "4.1 out of 5 stars" "4.2 out of 5 stars"
## [4] "4.2 out of 5 stars" "4.3 out of 5 stars" "4.3 out of 5 stars"
## [7] "4.3 out of 5 stars" "4.1 out of 5 stars" "4.1 out of 5 stars"
## [10] "4.5 out of 5 stars" "4.3 out of 5 stars" "4.4 out of 5 stars"
## [13] "3.6 out of 5 stars" "3.4 out of 5 stars" "4.1 out of 5 stars"
## [16] "3.7 out of 5 stars" "4.2 out of 5 stars" "3.9 out of 5 stars"
## [19] "4.4 out of 5 stars" "4.2 out of 5 stars" "4.2 out of 5 stars"
## [22] "4.1 out of 5 stars" "4.3 out of 5 stars" "4.2 out of 5 stars"
## [25] "4.6 out of 5 stars"
```

*#Number of Reviews*

```
NoOFReviews3 <- session3 %>%
```

```
html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span span.s-underline-  
html_text()
```

```
NoOFReviews3 <- NoOFReviews3[1:25]
```

```
NoOFReviews3
```

```
## [1] "787" "50" "164" "70" "243" "99" "1,195" "146"  
## [9] "1,632" "1,337" "1,694" "4,493" "5" "5" "422" "202"  
## [17] "475" "87" "5,698" "16,783" "164" "1,418" "152" "279"  
## [25] "300"
```

```
data3 <- data.frame(  
  Name = Name3,  
  Price = Price3,  
  Ratings = Ratings3,  
  No_of_Reviews = NoOFReviews3  
)
```

*#View(data3)*

```
df3 <- data.frame()
```

```
library(polite)
```

```
library(rvest)
```

```
library(httr)
```

```
library(dplyr)
```

*##Permission*

```
Link4 <- "https://www.amazon.co.uk/s?k=lipstick&page=4&crd=2FSFXK9TCDPDN&qid=1710721728&srefix=lipst%"
```

```
session4 <- bow(Link4, user_agent = "Educational Purposes")
```

```
session4 <- scrape(session4)
```

*#Name*

```
Name4 <- session4 %>%
```

```
html_nodes (".s-featured-result-item h2, .s-widget-container > span h2, .widgetIdsearch-results_150 span  
html_text()
```

```
Name4 <- Name4[1:25]
```

```
Name4
```

```
## [1] "L'Oréal Paris Liquid Lipstick, Intense Colour, Longwear Matte Formula with Hyaluronic Acid, Tr  
## [2] "Kiwi Seed Oil Lip Conditioner and Hydrating Lip Balm - Vitamin C rich Lip Care -  
Dry Lips, Cracked Lips and Chapped Lips - 4g "
```



```
## [3] "Julystar Matte matte lip glaze lipstick set, color lipstick, popular makeup lip gloss set (B G
## [4] "3INA MAKEUP - The Longwear Lipstick 261 - Dark nude Long Lasting Lipstick - Matte Lipstick with
## [5] "L'Oréal Infallible Matte Max Lipstick 8 Gotta Feeling "
## [6] "REVLON Super Lustrous Lipstick Pearl - Softsilver Rose 430 "
## [7] "MAC Cremesheen Lipstick - Creme d'Nude - 3g "
## [8] "Revolution Beauty London Pro, Lipstick Collection, Bare, 5x3.2g "
## [9] "Revlon Super Lustrous The Luscious Mattes Lipstick, in Nude, 011 Untold Stories "
## [10] "VELVET TOUCH lipstick #043-tropical pink 4 gr "
## [11] "Revlon ColorStay Matte Lite Crayon - Tread Lightly "
## [12] "Joan Collins Timeless Beauty Divine Lips Lipstick 3.5 g, Fontaine "
## [13] "KIKO Milano Lasting Matte Veil Liquid Lip Colour 13 | Long-Lasting Liquid Lipstick With A Matte
## [14] "HELAN Moisturizing Lipstick (82RI6 Hazelnut) "
## [15] "Rimmel London Lasting Finish Matte by Kate Lipstick, 107, 4 g "
## [16] "SUPER LUSTROUS lipstick #075-peach parfait 3,7 gr "
## [17] "Beauty Forever Long Lasting Cream Lipstick, Glossy & Moisturising Lip Formula, Vitamin C & E E
## [18] "Rimmel London The Only 1 Lipstick, 62 Call Me Crazy "
## [19] "Julystar New cosmetics Christmas beauty lipstick Long lasting, non-stick to cup, matte lipstick
## [20] "L'Oréal Paris Color Riche Satin Smooth Lipstick, Moisturising Pure Pigment Lip Colour, With Om
## [21] "KIKO Milano Unlimited Double Touch 105 | Liquid lipstick with a bright finish in a two-step ap
## [22] "e.l.f., Lip Plumping Gloss, Hydrating, Nourishing, Invigorating, High-Shine, Plumps, Volumizes
## [23] "RIMMEL LASTING FINISH LIPSTICK EXTREME MATTE 600 "
## [24] "Beauty Without Cruelty Moisturising Lipstick Silver Rose "
## [25] "REVLON Super Lustrous Lipstick Pearl - Cherry Blossom 028 "
```

```
#Price
```

```
Price4 <- session4 %>%
```

```
  html_nodes(".s-featured-result-item .a-color-base div.a-row:nth-of-type(1), div:nth-of-type(n+8) .s-w
  html_text()
```

```
Price4 <- Price4[1:25]
```

```
Price4
```

```
## [1] "£8.18£8.18 (£16.36£16.36/10 ml) RRP: £11.99£11.99"
## [2] "£13.00£13.00 (£13.00£13.00/count)"
## [3] "£11.99£11.99 (£6.00£6.00/10 ml)"
## [4] "£15.00£15.00 (£23.08£23.08/10 ml)"
## [5] "£18.70£18.70 (£62.33£62.33/10 g) Was: £22.00£22.00"
## [6] "£7.99£7.99 (£1.60£1.60/count)"
## [7] ""
## [8] "£7.21£7.21 (£7.21£7.21/count) RRP: £9.49£9.49"
## [9] "£10.00£10.00 (£10.00£10.00/count)"
## [10] "£21.00£21.00 (£21.00£21.00/count)"
## [11] "£9.38£9.38 (£23.45£23.45/10 ml) Was: £9.99£9.99"
## [12] "£16.50£16.50 (£16.50£16.50/count)"
## [13] ""
## [14] ""
## [15] ""
## [16] ""
## [17] "£4.99£4.99 (£4.99£4.99/count)"
## [18] "£7.99£7.99 (£7.99£7.99/count) RRP: £12.38£12.38"
## [19] "£12.99£12.99 (£21.65£21.65/10 ml)"
## [20] "£6.97£6.97 (£6.97£6.97/count)"
## [21] ""
## [22] "£6.95£6.95 (£6.95£6.95/count)"
## [23] ""
```

```
## [24] "£8.50£8.50 (£23.61£23.61/10 g)"
## [25] "£9.68£9.68 (£44.00£44.00/10 ml) RRP: £9.99£9.99"
```

```
#Ratings
Ratings4 <- session4 %>%
  html_nodes (".s-featured-result-item span.a-icon-alt, .widgetIdsearch-results_146 i.a-icon-star-small,
  html_text()
Ratings4 <- Ratings4[1:25]
Ratings4
```

```
## [1] "4.3 out of 5 stars" "4.1 out of 5 stars" "3.8 out of 5 stars"
## [4] "3.8 out of 5 stars" "4.6 out of 5 stars" "4.2 out of 5 stars"
## [7] "4.2 out of 5 stars" "4.2 out of 5 stars" "4.6 out of 5 stars"
## [10] "4.3 out of 5 stars" "4.2 out of 5 stars" "4.2 out of 5 stars"
## [13] "3.6 out of 5 stars" "4.3 out of 5 stars" "4.4 out of 5 stars"
## [16] "4.2 out of 5 stars" "4.3 out of 5 stars" "3.4 out of 5 stars"
## [19] "4.4 out of 5 stars" "4.4 out of 5 stars" "4.2 out of 5 stars"
## [22] "3.7 out of 5 stars" "3.9 out of 5 stars" "4.4 out of 5 stars"
## [25] "4.1 out of 5 stars"
```

```
#Number of Reviews
NoOFReviews4 <- session4 %>%
  html_nodes (".s-featured-result-item span.s-underline-text, .s-widget-container > span span.s-underline-
  html_text()
NoOFReviews4 <- NoOFReviews4[1:25]
NoOFReviews4
```

```
## [1] "787" "50" "309" "1,119" "144" "476" "157" "1,978"
## [9] "50" "1,694" "164" "70" "5" "653" "319" "159"
## [17] "1,394" "5" "4,493" "5,698" "16,783" "38" "268" "287"
## [25] "44"
```

```
data4 <- data.frame(
  Name = Name4,
  Price = Price4,
  Ratings = Ratings4,
  No_of_Reviews = NoOFReviews4
)
```

```
#View(data4)
```

```
Bind1 <- rbind(data1,data2,data3,data4)
```

```
#View(Bind1)
```

```
write.csv(Bind, file = "Lipstick.csv",)
```