DATA FOR COLLECT 20 minute

June 7, 2024

```
[1]: install.packages("httr")
     install.packages("rvest")
     install.packages("stringr")
     install.packages("vctrs")
```

```
Updating HTML index of packages in '.Library'
Making 'packages.html' … done
Updating HTML index of packages in '.Library'
Making 'packages.html' … done
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Making 'packages.html' … done
```

```
[2]: # Check if need to install rvest` library
     require("rvest")
     library(rvest)

     require("httr")
     library(httr)
```

```
Loading required package: rvest
Loading required package: httr
```

```
[3]: url <- "https://en.wikipedia.org/wiki/List_of_bicycle-sharing_systems"
```

```
[4]: # Get the root HTML node by calling the `read_html()` method with URL
     root_node <- read_html(url)
     table_nodes <- html_nodes(read_html(url), "table")
     table_nodes
```

```
{xml_nodeset (4)}
[1] <table class="wikitable sortable" style="text-align:left"><tbody>\n<tr>\n …
[2] <table class="nowraplinks mw-collapsible autocollapse navbox-inner" style …
[3] <table class="nowraplinks navbox-subgroup" style="border-spacing:0"><tbod …
[4] <table class="nowraplinks navbox-subgroup" style="border-spacing:0"><tbod …
```

```
[6]: # Summarize the dataframe
     summary(bike_share_df)
```

```
   Country              City                Name                System
 Length:554          Length:554          Length:554          Length:554
 Class :character    Class :character    Class :character    Class :character
 Mode  :character    Mode  :character    Mode  :character    Mode  :character
   Operator            Launched            Discontinued        Stations
 Length:554          Length:554          Length:554          Length:554
 Class :character    Class :character    Class :character    Class :character
 Mode  :character    Mode  :character    Mode  :character    Mode  :character
   Bicycles            Daily ridership
 Length:554          Length:554
 Class :character    Class :character
 Mode  :character    Mode  :character
```

```
[5]: # Convert the bike-sharing system table into a dataframe
     for (i in 1) {
       bike_share_df <- html_table(table_nodes[[1]], fill = TRUE, dec = ".")
       print(bike_share_df)
         }
     head(bike_share_df)
```

```
# A tibble: 554 x 10
   Country City  Name  System Operator Launched Discontinued Stations Bicycles
   <chr>   <chr> <chr> <chr>  <chr>    <chr>    <chr>        <chr>    <chr>
 1 Albania Tira… Ecov… ""     ""       March 2… ""           8        200
 2 Argent… Buen… Ecob… "Sert… "Bike I… 2010     ""           400      4000
 3 Argent… Mend… Metr… ""     ""       2014     ""           2        40
 4 Argent… Rosa… Mi B… ""     ""       2 Decem… ""           47       480
 5 Argent… San … Bici… "Bici… ""       27 Nove… ""           8        80
 6 Austra… Melb… Melb… "PBSC… "Motiva… June 20… "30 Novembe… 53       676
 7 Austra… Melb… oBike "4 Ge… ""       July 20… "July 2018"  dockless 1250
 8 Austra… Bris… City… "3 Ge… "JCDeca… Septemb… ""           150      2000
 9 Austra… Sydn… oBike "4 Ge… ""       July 20… "July 2018"  dockless 1250
10 Austra… Sydn… Ofo   "4 Ge… ""       October… ""           dockless 600
# … with 544 more rows, and 1 more variable: `Daily ridership` <chr>
```

	Country <chr>	City <chr>	Name <chr>	System <chr>	Operator <chr>
	Albania	Tirana[5]	Ecovolis		
	Argentina	Buenos Aires[6][7]	Ecobici	Serttel Brasil[8]	Bike In Baires (
A tibble: 6 × 10	Argentina	Mendoza[10]	Metrobici		
	Argentina	Rosario	Mi Bici Tu Bici[11]		
	Argentina	San Lorenzo, Santa Fe	Biciudad	Biciudad	
	Australia	Melbourne[12]	Melbourne Bike Share	PBSC & 8D	Motivate

```
[7]: # Export the dataframe into a csv file
     write.csv(bike_share_df, "raw_bike_sharing_systems.csv")
```