HW6_Edruss05.R

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```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.2     v tibble    3.3.0
## v lubridate 1.9.4     v tidyr     1.3.1
## v purrr     1.1.0
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(robotstxt)
library(rvest)
```

```
##
## Attaching package: 'rvest'
##
## The following object is masked from 'package:readr':
##
##     guess_encoding
```

```
#====================Exercise 1======================#
domain <- "https://air.plumelabs.com/"
paths_allowed(domain)
```

```
##  air.plumelabs.com
```

```
## [1] TRUE
```

```
#====================Exercise 2======================#
url<- "Air Quality Lexington, KY_ Live air quality and pollution Forecasts.html"
page <- read_html(url)
AQI <- page %>%
  html_elements(".pollutant-table__concentration") %>%
  html_text(trim = TRUE) %>%
  as.numeric() %>%
  head(4)
AQI
```

```
## [1] 31 34 16 41
```

```
#====================Exercise 3======================#
City <- page %>%
  html_element(".breadcrumb__item--active") %>%
```

```
  html_text(trim = TRUE)
City
```

```
## [1] "Lexington"
```

```
#====================Exercise 4=======================#
AQIdata <- tibble(
  pm2_5 = AQI[1],
  pm10 = AQI[2],
  NO2 = AQI[3],
  O3 = AQI[4],
  City = City)
AQIdata
```

```
## # A tibble: 1 x 5
##   pm2_5  pm10   NO2    O3 City
##   <dbl> <dbl> <dbl> <dbl> <chr>
## 1    31    34    16    41 Lexington
```

```
#====================Exercise 5=======================#
url<- "Air Quality Indianapolis, IN_ Live air quality and pollution Forecasts.html"
page <- read_html(url)
AQI <- page %>%
  html_elements(".pollutant-table__concentration") %>%
  html_text(trim = TRUE) %>%
  as.numeric() %>%
  head(4)
City <- page %>%
  html_element(".breadcrumb__item--active") %>%
  html_text(trim = TRUE)
AQIdata <- tibble(
  pm2_5 = AQI[1],
  pm10 = AQI[2],
  NO2 = AQI[3],
  O3 = AQI[4],
  City = City)
AQIdata
```

```
## # A tibble: 1 x 5
##   pm2_5  pm10   NO2    O3 City
##   <dbl> <dbl> <dbl> <dbl> <chr>
## 1    22    23    24    35 Indianapolis
```

```
#====================Exercise 6=======================#
saveRDS(AQIdata, "indianapolis_aqi.rds")
```