

Competitive Pokemon

Scraping

```
website <- "https://www.pokemon.com/us/play-pokemon/"
page_suffix = "/vg-masters/"
pages <- c("internationals/2018/latin-america/vg-masters/",
" Sindelfingen-regionals-2018/vg-masters/",
"portland-regionals-2018/vg-masters/",
"charlotte-regionals-2018/vg-masters/",
"costa-mesa-regionals-2018/vg-masters/",
"collinsville-regionals-2018/vg-masters/",
"malmo-regionals-2018/vg-masters/",
"internationals/2018/oceania/vg-masters/",
"leipzig-regionals-2018/vg-masters/",
"dallas-regionals-2018/vg-masters/",
"memphis-regionals-2018/vg-masters/",
"san-jose-regionals-2018/vg-masters/",
"internationals/2018/europe/vgc-masters/",
"vancouver-regionals-2018/vg-masters/",
"daytona-regionals-2018/vg-masters/",
"hartford-regionals-2018/vg-masters/",
"bremen-regionals-2018/vg-masters/",
"fort-wayne-regionals-2018/vg-masters/"
)
team <- "div.team"
trainer <- ".banner h2"
trainer_rank <- ".banner p"
pokemon_selector <- "div.body .row-wrapper .pokemon"
page <- pages[1]
teams <- data.frame(matrix(ncol=0, nrow=0))
competing_pokemon <- data.frame(matrix(ncol=0, nrow=0))
scrape_vector <- function(nodes, selector) nodes %>%
  html_nodes(selector) %>%
  html_text() %>%
  str_trim() %>%
  str_replace("\\s+", " ")
```

```

rows <- 0

for (page in pages) {
  webpage <- read_html(paste(website, page, sep=""))
  year <- strtoi(str_match(page, "(20[0-9]{2})"))
  team_nodes <- webpage %>%
    html_nodes(team)
  trainers <- team_nodes %>%
    html_node(trainer) %>%
    html_text()
  trainer_ranks <- team_nodes %>%
    html_node(trainer_rank) %>%
    html_text() %>%
    str_trim()
  num_teams <- length(team_nodes)
  page_frame <- data.frame(
    year=year,
    trainer=trainers,
    trainer_rank=trainer_ranks,
    team_id=rows:(rows+num_teams-1))
  pokemon_nodes <- team_nodes %>%
    html_nodes(pokemon_selector)
  num_pokemons <- length(pokemon_nodes)
  pokemon_names <- scrape_vector(pokemon_nodes, ".banner")
  pokemon_abilities <- scrape_vector(pokemon_nodes, ".ability li")
  pokemon_held_items <- scrape_vector(pokemon_nodes, ".held-item li")
  pokemon_natures <- scrape_vector(pokemon_nodes, ".nature li")
  pokemon_frame <- scrape_vector(pokemon_nodes, ".moves ul li") %>%
    matrix(nrow=4, ncol=num_pokemons) %>%
    rotate() %>%
    as.data.frame()
  colnames(pokemon_frame) <- c("move1", "move2", "move3", "move4")
  pokemon_frame$name = pokemon_names
  pokemon_frame$team_id = floor((0:(num_pokemons-1))/6) + rows
  pokemon_frame$held_item = pokemon_held_items
  pokemon_frame$nature = pokemon_natures
  pokemon_frame$ability = pokemon_abilities
  rows = rows + num_teams
  teams <- rbind(teams, page_frame)
  competing_pokemon <- rbind(competing_pokemon, pokemon_frame)
}
head(teams)

```

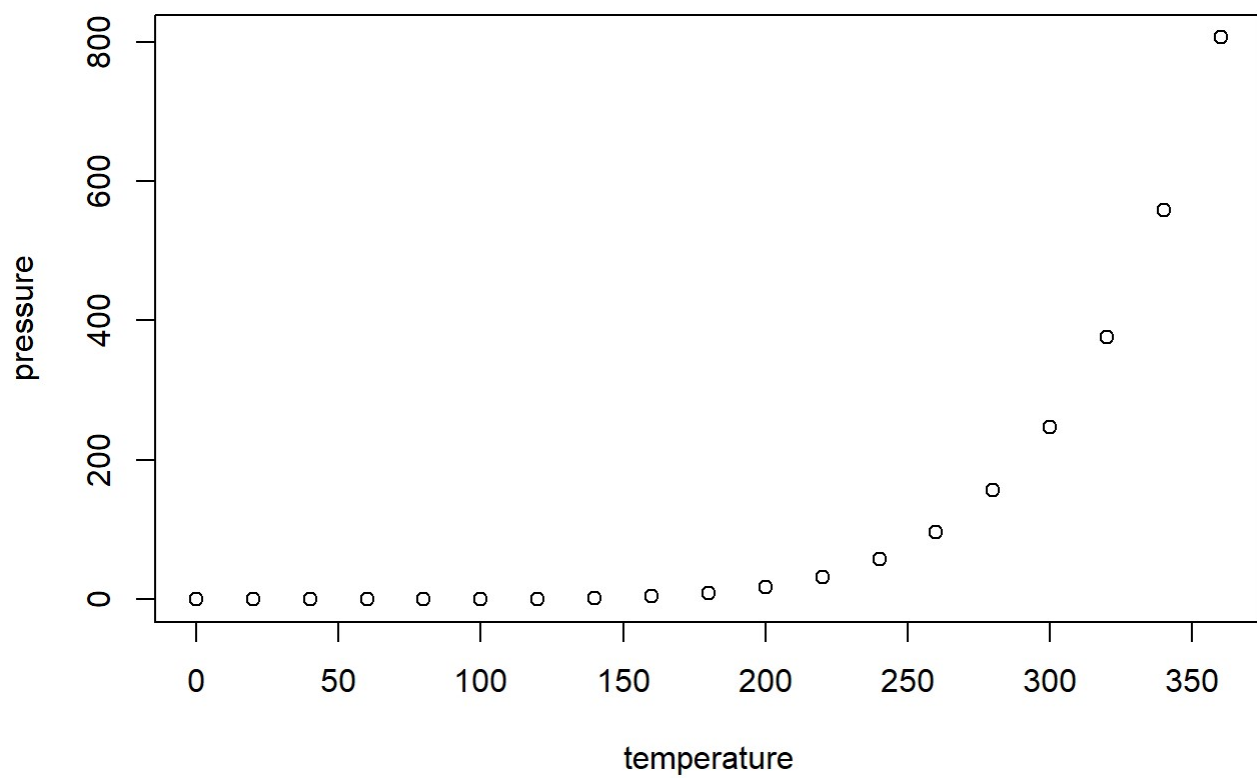
```
##      year      trainer      trainer_rank
## 1 2018 Carson Confer (United States)      Masters Division Champion
## 2 2018  Alberto Lara (United States)      Masters Division Runner-Up
## 3 2018      Eric Rios (Spain)      Masters Division Semifinalist
## 4 2018      Melvin Keh (Singapore)      Masters Division Semifinalist
## 5 2018      Alex Gomez (Spain) Masters Division Quarterfinalist
## 6 2018 Jean Paul Lopez Buiza (Peru) Masters Division Quarterfinalist
##   team_id
## 1      0
## 2      1
## 3      2
## 4      3
## 5      4
## 6      5
```

```
head(competing_pokemon)
```

```
##      move1      move2      move3      move4
## 1   Protect   Encore   Helping Hand   Scald
## 2   Fake Out   Ice Beam   Energy Ball   Hydro Pump
## 3 Hidden Power Sludge Bomb   Rock Tomb   Earth Power
## 4   Protect Sucker Punch   Iron Head   Knock Off
## 5   Protect Volt Switch Dazzling Gleam   Thunder
## 6   Protect Swords Dance   Bug Bite Bullet Punch
##      name team_id   held_item   nature      ability
## 1      Politoed      0 Eject Button   Sassy      Drizzle
## 2      Ludicolo      0  Waterium Z   Timid      Swift Swim
## 3 Landorus Therian Forme      0 Assault Vest   Modest      Intimidate
## 4      Bisharp      0   Focus Sash Adamant      Defiant
## 5      Tapu Koko      0    Life Orb   Timid Electric Surge
## 6      Scizor      0   Scizorite Adamant      Light Metal
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.