Week_6_HW

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1. What purpose to Makefile serve?

   Data clean up, data gathering, or files merging

2. What is the function to download a URL?

   import() or read.table if easily accessible

3. What is a .zip file?

   Compressed files

4. What is the process to download and decompress a .zip file? Give an example in a R code chunk.

   a. Specify the URL of the .zip file and the destination folder

   b. Create a temporary file called 'temp'

   c. Download the compressed file into the temporary file

   d. Decompress the file and convert it into a data frame

   e. Delete the temporary file

```r
#specify the URL
URL <- paste0("http://www.unified-democracy-scores.org/", "files/20140312/z/uds_summary.cs
#create temporary file
temp <- tempfile()
download.file(URL, temp)
##Decompress the file
uds_data <- read.csv(gzfile(temp, "uds_summary.csv"))
##Delete the temp
unlink(temp)
```

5. What are APIs?

Application Programming Interfaces

6. Use WDI package to download a new dataset other than AG.CON.FERT.ZS

```
           indicator
1070     AG.CON.FERT.MT
1071 AG.CON.FERT.PT.ZS
1072     AG.CON.FERT.ZS

                                                         name
1070                       Fertilizer consumption (metric tons)
1071           Fertilizer consumption (% of fertilizer production)
1072 Fertilizer consumption (kilograms per hectare of arable land)

                      country iso2c iso3c year AG.CON.FERT.PT.ZS
1 Africa Eastern and Southern    ZH   AFE 2022                NA
2 Africa Eastern and Southern    ZH   AFE 2021         929.4799
3 Africa Eastern and Southern    ZH   AFE 2020         944.1741
4 Africa Eastern and Southern    ZH   AFE 2019         860.9742
5 Africa Eastern and Southern    ZH   AFE 2018         714.9938
6 Africa Eastern and Southern    ZH   AFE 2017         752.7104
```

7. Indicate 3 new things you learned from this week.

a. I learned to extract data from public website

b. I learned API and related package—WDI

c. I leanred to download zip files with URLs