```
# Python
## used in combine with chromdriver or other extensions depends on
your system or browser type

## Link to download the webdriver -- chrome : https://
chromedriver.storage.googleapis.com/index.html?path=75.0.3770.90/
## You may modify the webdriver or omit it depends on the system  and
(or) the browser.
# In[4]:


import time
import csv
import datetime
import argparse
import os
from selenium import webdriver
import pandas as pd;
output_final_final=pd.DataFrame()


# In[ ]:




options = webdriver.ChromeOptions()
options.add_argument('--ignore-certificate-errors')
options.add_argument("--test-type")
## path where you store your chromedriver
driver = webdriver.Chrome('/Users/MichaelMiao/Downloads/chromedriver')
# Optional argument, if not specified will search path.
## website you would like to complte auto scrape
## Link to download the webdriver -- chrome : https://
chromedriver.storage.googleapis.com/index.html?path=75.0.3770.90/
## You may modify the webdriver or omit it depends on the system  and
(or) the browser.
driver.get('https://www.bop.gov/inmateloc/')
driver.find_element_by_xpath('//*[@id="ui-id-1"]/span').click()
## text entering on wesbite for searching
text_area_first = driver.find_element_by_id('inmNameFirst');
text_area_first.send_keys("mark")
text_area_mid=driver.find_element_by_id('inmNameMid')
text_area_mid.send_keys("")
text_area_last=driver.find_element_by_id('inmNameLast')
text_area_last.send_keys("white")
text_area_age=driver.find_element_by_id('inmAge')
text_area_age.send_keys("")
driver.find_element_by_xpath('//*[@id="searchNameButton"]').click()
```

```
item = driver.find_element_by_xpath('//*[@id="inmateTable"]')
driver.execute_script("arguments[0].click();", item)

time.sleep(2)
for table in driver.find_elements_by_xpath('//*[@id="inmateTable"]/
tbody'):
    data = [item.text for item in table.find_elements_by_xpath(".//
*[self::td or self::th]")]
print(data)
time.sleep(2)
driver.quit() # automatically close the website.


# In[ ]:


# data manipulation and locally store the data as CSV file.
n=7
final = [data[i * n:(i + 1) * n] for i in range((len(data) + n - 1) //
n )]
print (final)

output_final=pd.DataFrame(final)
output_final
output_final.columns=['Name','Register
Number','Age','Race','Gender','Release Date','Status']
print(output_final)
## save to the path you would choose.
export1_csv =output_final.to_csv ('/Users/MichaelMiao/Documents/
career\export_dataframe_1.csv', index = None, header=True)
```

```{r}
pkg <-
c("readr","readxl","dplyr","stringr","ggplot2","tidyr","car","caret"

,"ranger"
,"rsample"
,"randomForest")
pkgload <- lapply(pkg, require, character.only = TRUE)

```

```{r}
```

```
data1 <- read.csv("export_dataframe_1.csv")
data2 <- read.csv("export_dataframe_2.csv")
data3 <- read.csv("export_dataframe_3.csv")
```

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#R coding

```{r}
data_table <- rbind(data1,data2) %>% glimpse
data_table2 <- data_table %>% rbind(.,data3) %>% glimpse()
J <- data.frame("JAME R SMITH",
54546-056,45,"Black","Male","04/20/2014","Released")
names(data_table2)
colnames(J) <- c("Name"   ,         "Register.Number",
 "Age"  ,           "Race"    ,
"Gender"    ,      "Release.Date"  ,
"Status"         )
data_table3 <- data_table2 %>% rbind(.,J) %>% glimpse()


data_table4 <- data_table3 %>% filter(.,Age==45 | Age==44) %>% print()

data_table4$Register.Number =as.character(data_table4$Register.Number)
data_table4$Register.Number[19]="54546-056"
data_table4$Register.Number <- as.factor(data_table4$Register.Number)
print(data_table4)
datafinal <- data_table4 %>% select(.,Register.Number,Name) %>%
print()
datafinal$Score <- rep(0,19)
print(datafinal)
```
```{r}
write.csv(datafinal,file = "vcheckdata.csv")
```
```{r}
#
c(1,2,6,7,15,18,21,22,43,48,55,52,57,58,59,66,70,73,74,78,80,81,82,88,
89,91,90,95,99,104,112,113,114,115,119,122,144,159,171,180,193,197,207
,211,227,230,244,250,252,263,265,275,277,283)
#
# 295,302,308,309,310,311,315,319,323,328,336,339,344,346
```

```{r}
final_1<- read.csv("vcheckdata_2.csv") %>% print
final_2 <- final_1[order(final_1$Score,decreasing = T),-1] %>% print()
write.csv(final_2,file = "vfinal.csv")
```
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