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In [ ]: from bs4 import BeautifulSoup
import pandas as pd
import requests
import csv
from selenium.webdriver.support.ui import Select
from selenium.webdriver import Chrome
import time
## get the terms
term = {1:"Fall", 0: "Spring"}
terms = []
for i in range(2005, 2020):
    for j in range(0,2):
        terms.append(term.get(j)+" "+str(i))
## get url
base = "https://webapps.sfsu.edu"
driver = 'chromedriver.exe'
driver = Chrome(driver)
url = "https://webapps.sfsu.edu/public/classservices/classsearch"
driver.get(url)
urls = []
for term in terms:
    driver.get(url)
    search_form = driver.find_element_by_id('classScheduleAdvanced_term').send
    _keys(term)
    select = Select(driver.find_element_by_id('classScheduleAdvanced_subject'
))
    select.select_by_value("CSC")
    driver.find_element_by_id('classScheduleAdvanced_submit').click()
    # get all elements
    for i in range(0,6):
        #parse table
        time.sleep(5)
        source = driver.page_source
        soup = BeautifulSoup(source, 'lxml')
        table = soup.find('table')
        table_body = table.find('tbody')
        rows = table_body.find_all('tr')
        for row in rows:
            head = row.find('th')
            urls.append(base + head.find('a', href=True).get('href'))
            driver.find_element_by_link_text('Next').click()
print("all data collected")

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In [ ]: #for url in urls:
import requests
seats =[]
enrolled=[]
years=[]
course=[]
prof = []
for url in urls:
    html_content = requests.get(url)
    soup = BeautifulSoup(html_content.text, 'lxml')
    div = soup.find_all('div', class_="col-xs-5 col-md-6")
    title = soup.find('h2')
    x = title.text.split('-')
    y = x[0].split('']')
    title =y[0]+"]"
    year = soup.find('h1')
    x = year.text.split('-')
    x = x[1].split(' ')
    year = x[1]+" "+x[2]
    td = soup.find_all('td')
    try:
        pName = td[len(td)-1].text.lstrip().split("\n")[0]
    except:
        pName = "Null"
    print(pName)
    print(title)
    print(year)
    prof.append(pName)
    seats.append(int(div[0].text))
    enrolled.append(int(div[1].text))
    years.append(year)
    course.append(title)
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In [ ]:
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In [6]: out_Data = pd.DataFrame({'term': years, 'Course_Name': course, 'enrolled': enr
olled, 'total_Seats': seats, 'Prof Name': prof})
out_Data.to_csv(r'C:\Users\tomb3\Desktop\SF_State_Data.csv')
print("done")
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done

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In [ ]:
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