셀레니움 기본 함수

- 참조 URL : [https://selenium-python.readthedocs.io/locating-elements.html (https://selenium-python.readthedocs.io/locating-elements.html)](https://selenium-python.readthedocs.io/locating-elements.html)

```
find_element_by_id
find_element_by_name
find_element_by_xpath
find_element_by_link_text
find_element_by_partial_link_text
find_element_by_tag_name
find_element_by_class_name
find_element_by_css_selector



find_elements_by_name
find_elements_by_xpath
find_elements_by_link_text
find_elements_by_partial_link_text
find_elements_by_tag_name
find_elements_by_class_name
find_elements_by_css_selector
```

01. 웹 브라우저 띄우기

```
In [2]:  from selenium import webdriver

         driver = webdriver.Chrome('chromedriver')
```

02. 웹 접속하기

- 웹 브라우저를 띄우고 크롤러를 만들기 위한 사이트에 접속
- get() 함수를 이용하면 사이트 접속이 가능

In [5]:
```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver') # 빈 브라우저 띄움
driver.get(url) # url 접속
```

03. id를 이용하여 접근

- find_element_by_id("id명")

In [6]:
```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_id = driver.find_element_by_id('user-content-id01')
print(selected_id)
print(selected_id.tag_name)   # 해당 연결의 tag이름
print(selected_id.text)       # 해당 태그의 text정보
```

```
<selenium.webdriver.remote.webelement.WebElement (session="4c98ffe49fc891902b4d77053d975bb4", element="0.2721562161554125-1")>
div
id예제
```

04. 태그이름을 이용하여 접근

- find_element_by_tag_name("태그명") # 하나

- find_elements_by_tag_name("태그명") # 여러개

In [7]:
```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_tag_p = driver.find_element_by_tag_name('p')
print(selected_tag_p)
print(selected_tag_p.tag_name)
print(selected_tag_p.text)
```

```
<selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-1")>
p
GitHub is home to over 28 million developers working together to host and review code, manage projects, and build software togethe
r.
[<selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-1")>,
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m.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-12")>]
```

- find_elements_by_tag_name로 반환된 결과는 text와 tag_name속성을 사용할 수 없음.

In [8]:
```python
selected_tags_p = driver.find_elements_by_tag_name('p')
print(selected_tags_p)
```

[<selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-1")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-2")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-3")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-4")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-5")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-6")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-7")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-8")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-9")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-10")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-11")>, <selenium.webdriver.remote.webelement.WebElement (session="59c38826172e6936afd5921657f719d9", element="0.07671060827462806-12")>]

05. name을 이용하여 접근

- find_element_by_name("이름") # 하나
- find_elements_by_name("이름") # 여러개

```
In [9]: from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_name = driver.find_element_by_name('q')
print(selected_name)
print(selected_name.tag_name)
print(selected_name.text)

# name이 'q'인것이 하나이기에 길이가 1인 리스트가 반환됨.
selected_names = driver.find_elements_by_name('q')
print(selected_names)
```

```
<selenium.webdriver.remote.webelement.WebElement (session="07cf378cf73f6845dbc14721e1f1dbee", element="0.4569658456211223-1")>
input

[<selenium.webdriver.remote.webelement.WebElement (session="07cf378cf73f6845dbc14721e1f1dbee", element="0.4569658456211223-1")>]
```

06. find_element_by_text와 find_elements_by_link_text

In [10]:
```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_link = driver.find_element_by_link_text('')
print(selected_link)
print(selected_link.tag_name)
print(selected_link.text)

selected_links = driver.find_elements_by_link_text('')
print(selected_links)
```

```
<selenium.webdriver.remote.webelement.WebElement (session="1ad0fa0876abcacf62019c0a5d8ce687", element="0.16951765070875946-1")>
a

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```
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```

07. 클래스 이름을 이용한 찾기

- find_element_by_class_name과
- find_elements_by_class_name

In [12]:

```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND/AISTUDY'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_class = driver.find_element_by_class_name('content')
print(selected_class)
print(selected_class.tag_name)
print(selected_class.text)

selected_classes = driver.find_elements_by_class_name('content')
print(selected_classes)
```

```
<selenium.webdriver.remote.webelement.WebElement (session="c80dff5f9a1e5144db62d3cca7bf9970", element="0.3572793099881537-1")>
td

[<selenium.webdriver.remote.webelement.WebElement (session="c80dff5f9a1e5144db62d3cca7bf9970", element="0.3572793099881537-1")>, <
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```

08. selector를 이용한 접근

- find_element_by_css_selector과
- find_elements_by_css_selector

09. 웹 제어하기

- 마우스 제어
- 키보드 제어
- JavaScript 삽입

9-1 마우스 제어

In [18]:
```python
from selenium import webdriver

url = 'https://pjt3591oo.github.io'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

# body > main > div > div > div:nth-child(9) > h3 > a
selected_selector = driver.find_element_by_css_selector('div.home div.p a')
print(selected_selector.tag_name)
print(selected_selector.text)
selected_selector.click()
```

```
a
[programming] [react] react 작업환경 설
```

In [23]:
```python
from selenium import webdriver

url = 'https://news.naver.com/'

driver = webdriver.Chrome('chromedriver')
driver.get(url)

# text_today_main_news_801001 > li:nth-child(1) > div > a > strong
selected_selector = driver.find_element_by_css_selector('div.newsnow_tx_inner strong')
print(selected_selector.tag_name)
print(selected_selector.text)
selected_selector.click()
```

```
strong
응답 마지노선, 어려워진 '연내 답방'…어떤 변수 있길래
```

9-2 키보드 제어

- send_keys() 함수를 이용

In [26]:
```python
from selenium import webdriver

url = 'https://github.com/TOTOFRIEND'


# 로그인 한 경우, 안한경우가 다를 수 있음.
# /html/body/div[1]/header/div/div[2]/div[2]/div/div/div/form/label/input[1]
#
driver = webdriver.Chrome('chromedriver')
driver.get(url)

selected_tag_a = driver.find_element_by_xpath("/html/body/div[1]/header/div/div[2]/div[2]/div/div/div/form/label/input[1]")
selected_tag_a.send_keys('test')
```

스타일 난다

In [32]:
```python
from selenium import webdriver
from bs4 import BeautifulSoup
import time
import lxml

url = 'http://stylenanda.com/product/search.html?banner_action=&keyword=bag'

start = time.time()

# //*[@id="sb-icon-search_"]
driver = webdriver.Chrome('chromedriver')
driver.get(url)

soup = BeautifulSoup(driver.page_source, 'lxml')
soup1 = soup.find_all("div", class_="name")

end = time.time() - start
#print(soup1[1])
```

In [35]: soup1

Out[35]: [<div class="name">
 <strong class="title displaynone">상품명 : 에코레더 시크텍스처 숄더백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 레트로클린레더 양증 조리백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 파이톤구슬프레임 멀티웨이미니백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 고퀄에코퍼 폭신토트백
12월 26일부터 순차 배송가능!!
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 스웨이드로핑 멀티실루엣백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 리얼웨이 레오파드 퍼토트백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 크랙시크레더 스퀘어 숄더백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 에코파이톤 투웨이미니백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 이지파이톤 라이트패브릭 에코백
 </div>, <div class="name">
 <strong class="title displaynone"><s

pan style="font-size:12px;color:#565656;">상품명 : 파이톤트렌디 벨트힙색
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 로얄시크 스냅스퀘어 숄더크로스백
12월 27일부터 순차 배송가능!!
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 포슬스트랩 핸디토트 bag
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 밍키에코퍼 체인미니버킷백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 감각블록 레오파드퍼 버킷토트백
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 퐁퐁뽀그리 핸디파우치 미니백 (+chain strap)
 </div>, <div class="name">
 <strong class="title displaynone">상품명 : 라운드스퀘어 크랙숄더백
 </div>]

In [45]:
```python
for items in soup1:
    #print(items.find_all("span"))
    a = items.find_all("span")[1]
    print(a.text)
```

에코레더 시크텍스처 숄더백
레트로클린레더 앙증조리백
파이톤구슬프레임 멀티웨이미니백
고퀄에코퍼 폭신토트백12월 26일부터 순차 배송가능!!
스웨이드로핑 멀티실루엣백
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밍키에코퍼 체인미니버킷백
감각블록 레오파드퍼 버킷토트백
퐁퐁뽀그리 핸디파우치 미니백 (+chain strap)
라운드스퀘어 크랙숄더백

In [ ]: