

**National Institute of Textile Engineering and Research (NITER)**

Software Engineering Lab (CSE- 3112)

CSE 3rd Year 1st Semester

**LAB MANUAL**

1. Introduction of Software Testing and Process Model (Waterfall, Spiral, V & V)

**Lab Format:**

- **Introduction**
- **Discussion**  
Follow Lab1 Slide
- **Conclusion/Remarks**

2. Installation process of Selenium on Pycharm IDE along with Web – drivers.

**Lab Format:**

- **Introduction**
- **Installation Process**
- **Conclusion/Remarks**

3. Browse Website from Pycharm IDE.

• **Introduction**

• **Code**

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
```

```
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://www.grameenphone.com/')
driver.maximize_window()
driver.close()
```

• **Conclusion/Remarks**

#### 4. Perform Search Operation by Basic Locator (Name).

- **Introduction**

From given image

- **Code**

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://www.google.com')
driver.find_element(By.NAME, value="q").send_keys('flower')
driver.find_element(By.NAME, value='btnK').submit()
driver.close()
```

- **Conclusion/Remarks**

#### 5. Check Login Form By (ID) and perform logout (LINK\_TEXT).

- **Introduction**

- **Code**

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://practicetestautomation.com/practice-test-login/')
driver.find_element(By.ID,value='username').send_keys('student')
driver.find_element(By.ID,value='password').send_keys("Password123")
driver.find_element(By.ID, value='submit').click()
driver.find_element(By.LINK_TEXT, value='Log out').click()
driver.close()
```

- **Conclusion/Remarks**

## 6. Identify Multiple Web Element Using Basic Locator (CLASS\_NAME)

- **Introduction**

- **Code**

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://www.grameenphone.com/')
c = driver.find_elements(By.CLASS_NAME,value='swiper-slide')
print(len(c))
driver.close()
```

- **Conclusion/Remarks**

## 7. Identify Multiple Web Element Using Basic Locator (TAG\_NAME)

- **Introduction**

- **Code**

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://www.grameenphone.com/')
link = driver.find_elements(By.TAG_NAME, value="a")
division = driver.find_elements(By.TAG_NAME, value="div")
print(len(link))
print(len(division))
driver.close()
```

- **Conclusion/Remarks**

## 8. Identify Web Element Using Customize Locator (CSS\_SELECTOR)

### Lab Format:

#### • Code

```
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
v = Options()
v.add_experimental_option("detach", True)
driver = webdriver.Chrome(options=v)
driver.get('https://www.facebook.com/')
```

#### TAG & ID

```
driver.find_element(By.CSS_SELECTOR, 'input#email').send_keys('abc')
```

*#Here tag is **input** and id is **email** [between these two have to use #]*

#### TAG & CLASS

```
driver.find_element(By.CSS_SELECTOR, 'input.inputtext').send_keys('abc')
```

*#Here, tag is **input** and class is **inputtext** [between these two have to use . ] {if the class name is larger, then consider only the first portion upto any space or \_}*

#### TAG & Attributes

```
driver.find_element(By.CSS_SELECTOR, 'input[data-testid="royal_email"]')
.send_keys('abcdef')
```

*# Here, tag is **input** and as attribute used **data-testid** {between these two have to use [ ], and inside [ ] have to keep attributes value}*

#### TAG & CLASS & Attributes

```
driver.find_element(By.CSS_SELECTOR, 'input.inputtext[name=email]').send_keys('xyz')
driver.find_element(By.CSS_SELECTOR, 'input.inputtext[name=pass]').send_keys('xyz')
```

```
d_keys('123')
```

*#Here, as tag used **input**; as class used **inputtext**, and as attributes used **name** and attributes value is **email** and **pass**. Between tag and class used **.** and between class and attributes used **[ ]**.*

```
#driver.find_element(By.CSS_SELECTOR,'.inputtext[name=email]').send_
keys('xyz')
#driver.find_element(By.CSS_SELECTOR,'.inputtext[name=pass]').send_k
eys('123')
```

*# Here, we did the same thing: just skip the **tag name**, as both entities are in the same tag. For any kinds of **css\_locator**, we can ignore the tag name in this way.*

- **Conclusion/Remarks**