Selenium

1.By id

```
import time
from selenium import webdriver
driver = webdriver.Chrome()
driver.get("https://www.facebook.com/login/")
driver.maximize_window()
driver.find_element("id", "email").send_keys("admin@gmail.com")
driver.find_element("id", "pass").send_keys("admin123")
driver.find_element("id", "loginbutton").click()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

2.By name

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.implicitly_wait(1000)
driver.get("https://www.instagram.com/accounts/login/")
driver.maximize_window()
driver.find_element("name", "username").send_keys("admin@gmail.com")
driver.find_element("name", "password").send_keys("admin123")
driver.find_element(By.CLASS_NAME, "_acap").click()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

3.By Tagname

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.get("http://localhost:3000/Login")
driver.maximize_window()
driver.find_element(By.TAG_NAME, 'P')
```

```
driver.find_element(By.TAG_NAME, 'div')
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

4.By x path

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.implicitly_wait(1000)
driver.get("http://localhost:3000/Login")
driver.maximize_window()
driver.find_element(By.XPATH,
"//input[@id='form3Example3']").send_keys("admin@gmail.com");
driver.find_element(By.XPATH, "//input[@id='form3Example4']").send_keys("admin123")
driver.find_element(By.XPATH, "//button[@id='buttonlogin']").click()
time.sleep(10)
driver.close()
driver.quit()
print('Successful')
```

5.By className

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.implicitly_wait(1000)
driver.get("http://localhost:3000/Login")
driver.maximize_window()
driver.find_element(By.CLASS_NAME, "input1").send_keys("admin@gmail.com")
driver.find_element(By.CLASS_NAME, "input2 ").send_keys("admin123")
driver.find_element(By.CLASS_NAME, "btnlogin").click()
time.sleep(10)
driver.close()
driver.quit()
print('Successful')
```

ACTION CHAINS

6.click

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.w3schools.com/")
element = driver.find_element(By.LINK_TEXT, "Contests")
action = ActionChains(driver)
action.click(on_element = element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

7.Context_click

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
element = driver.find_element(By.LINK_TEXT, "Contests")
action = ActionChains(driver)
action.context_click(on_element = element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

8.Double - click

```
import time
from selenium import webdriver
```

```
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
element = driver.find_element(By.LINK_TEXT, "Contests")
action = ActionChains(driver)
action.double_click(on_element = element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

9.Move By Offset

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
action.move_by_offset(100, 100).context_click()
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

10.Move to Element

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
element = driver.find_element(By.LINK_TEXT, "Contests")
action = ActionChains(driver)
```

```
action.move_to_element(element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

11.Click and Hold

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
element = driver.find_element(By.LINK_TEXT, "Contests")
action = ActionChains(driver)
action.click_and_hold(on_element = element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

12.Drag and Drop

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("http://www.dhtmlgoodies.com/scripts/drag-drop-custom/demo-drag-drop-3.html")
source_element = driver.find_element(By.ID, "box2")
target_element = driver.find_element(By.ID, "box106")
action = ActionChains(driver)
action.drag_and_drop(source_element, target_element)
action.perform()
time.sleep(5)
driver.close()
```

```
driver.quit()
print('Successful')
```

13.Drag and Drop by offset

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("http://www.dhtmlgoodies.com/scripts/drag-drop-custom/demo-drag-drop-3.html")
source_element = driver.find_element(By.ID, "box2")
target_element = driver.find_element(By.ID, "box106")
action = ActionChains(driver)
action.drag_and_drop_by_offset(source_element, 100, 100)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

14.Pause

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.implicitly_wait(1000)
driver.get("https://www.instagram.com/accounts/login/")
driver.maximize_window()
action = ActionChains(driver)
driver.find_element("name", "username").send_keys("admin@gmail.com")
driver.find_element("name", "password").send_keys("admin123")
action.pause(2)
action.perform()
driver.find_element(By.CLASS_NAME, "_acap").click()
time.sleep(5)
driver.close()
driver.quit()
```

```
print('Successful')
```

15.move_to_element_with_offset

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
element = driver.find_element(By.LINK_TEXT, "JavaScript")
action = ActionChains(driver)
action.pause(2)
action.move_to_element_with_offset(element, 100, 100).context_click()
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

16.forward refresh back

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.geeksforgeeks.org/")
driver.get("https://www.w3schools.com/")
driver.forward()
driver.refresh()
driver.back()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

17.click and release

```
from selenium import webdriver
import time
```

```
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.w3schools.com/")
element = driver.find_element(By.LINK_TEXT, "Videos")
action = ActionChains(driver)
action.click(on_element = element)
action.release(on_element = element)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

18.key - up and key - down

```
from selenium import webdriver
import time
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.common.keys import Keys
driver = webdriver.Chrome()
driver.maximize_window()
driver.get("https://www.w3schools.com/")
action = ActionChains(driver)
action.key_down(Keys.CONTROL).send_keys('F').key_up(Keys.CONTROL)
action.perform()
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

19.Screenshot and Image

```
from selenium import webdriver
import time
from PIL import Image
driver = webdriver.Chrome()
url = "https://www.geeksforgeeks.org/"
driver.get(url)
driver.save_screenshot("image.png")
```

```
image = Image.open("image.png")
image.show()
time.sleep(3)
driver.close()
driver.quit()
print('success')
```

20.Upload File

```
from selenium import webdriver
import time
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.get("D:/Play-Ground/selenium/upload.html")
driver.find_element(By.XPATH, "//input[@id='file']").send_keys("D:/Play-
Ground/selenium/image.png")
time.sleep(5)
driver.close()
driver.quit()
print('success')
```

21.css - selector

```
from selenium import webdriver
import time
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.get("D:/Play-Ground/selenium/upload.html")
driver.find_element(By.CSS_SELECTOR, "input#file").send_keys("D:/Play-
Ground/selenium/image.png")
time.sleep(5)
driver.close()
driver.quit()
print('success')
```

22.Select - Option

```
from selenium import webdriver
import time
from selenium.webdriver.support.select import Select
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
```

```
driver.maximize_window()
driver.get("D:/Play-Ground/selenium/upload.html")
sel = Select(driver.find_element(By.XPATH, "//*[@id='cars']"))
#sel.select_by_visible_text("Saab")
sel.select_by_index(3)
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

23.find - element(s)

```
import time
from selenium import webdriver
from selenium.webdriver.common.by import By
driver = webdriver.Chrome()
driver.implicitly_wait(1000)
driver.get("file:///D:/Play-Ground/selenium/find-elements.html")
driver.maximize_window()
elements = driver.find_elements(By.TAG_NAME, 'input')
print(len(elements))
time.sleep(5)
driver.close()
driver.quit()
print('Successful')
```

24.read alert message

```
from selenium import webdriver
import time
from selenium.webdriver.common.alert import Alert
driver = webdriver.Chrome()
driver.get("file:///D:/Play-Ground/selenium/find-elements.html")
alert = Alert(driver)
print(alert.text)
alert.accept()
time.sleep(5)
driver.close()
driver.quit()
print('success')
```

25.Read from excel

```
import openpyxl
b = openpyxl.load_workbook("E:/sem-7/705/Selenium/Book1.xlsx")sht =

b.active

cl = sht.cell (row = 4, column = 1) print("Reading

value from row-3, col-2: ")print (cl.value)
```

26.Write in excel

```
import openpyxl
book = openpyxl.load_workbook("E:/sem-7/705/Selenium/Book1.xlsx")

sheet = book.active

sheet.cell(row = 3, column = 1).value = 'Priya'

print("done")



a=sheet.cell(row=3, column=1)

print(a.value)
```

27.Database

```
import pymysql
connection = pymysql.connect(host='localhost',

                    user='root',

                    password='',

                    db='home_services2',

                    charset='utf8mb4',

                    cursorclass=pymysql.cursors.DictCursor)cursor

= connection.cursor()

# Select
query = "SELECT * FROM `registration`"

cursor.execute(query)
```

```
if cursor.rowcount == 0:
    print ('No results matched your query.')else:

    print (cursor.fetchone()['u_id'])#

 insert

query = "INSERT INTO `registration` VALUES
(106,'abcd@gmail.com',123456,9116543210,'dhyani','Dhaduk','sfdffvdv','rashmi65','789456')"
cursor.execute(query)
 query = "UPDATE `registration` SET
`email`='rashmita@gmail.com',`mobileno`=9090909090 WHERE `u_id`=105"

cursor.execute(query)

connection.commit()


28.Listener import

unittestimport

logging


from selenium import webdriver
from selenium.webdriver.common.by import By from

selenium.webdriver.common.keys import Keysimport

time

from selenium.webdriver.support.events import EventFiringWebDriver,
AbstractEventListener
class MyListener(AbstractEventListener): def

    before_navigate_to(self, url, driver):

        print("Before navigating to ", url) def

    after_navigate_to(self, url, driver):

        print("After navigating to ", url)
    def before_navigate_back(self, driver):
        print("before navigating back ", driver.current_url)def

    after_navigate_back(self, driver):
```

```
    print("After navigating back ", driver.current_url)def
before_navigate_forward(self, driver):
    print("before navigating forward ", driver.current_url)def
after_navigate_forward(self, driver):
    print("After navigating forward ", driver.current_url)def
before_find(self, by, value, driver):
    print("before find")
def after_find(self, by, value, driver):
    print("after_find")
def before_click(self, element, driver):
    print("before_click")
def after_click(self, element, driver):
    print("after_click")
def before_change_value_of(self, element, driver):
    print("before_change_value_of")
def after_change_value_of(self, element, driver):
    print("after_change_value_of")
def before_execute_script(self, script, driver):
    print("before_execute_script")
def after_execute_script(self, script, driver):
    print("after_execute_script")
def before_close(self, driver):
    print("tttt")
def after_close(self, driver):
    print("before_close")
def before_quit(self, driver):
```

```
        print("before_quit")
    def after_quit(self, driver):
        print("after_quit")
    def on_exception(self, exception, driver):
        print("on_exception")
class Test(unittest.TestCase):def
    test_logging_file(self):
        driver_plain = webdriver.Chrome()
        driver_plain.maximize_window()
        edriver = EventFiringWebDriver(driver_plain, MyListener())
        edriver.get("https://google.com")
        time.sleep(2)
        a=edriver.find_element(By.NAME,"q")
        a.send_keys("Sendkeys with listener")
        a.send_keys(Keys.ENTER) time.sleep(2)
        edriver.close()
if__name__== "_main_":
    unittest.main()
```

29.Ajax

```
from selenium import webdriver
from selenium.webdriver.common.by import By
from selenium.webdriver.support.wait import WebDriverWait
from selenium.webdriver.support import expected_conditions as EC

driver = webdriver.Chrome()

driver.get("https://www.facebook.com/login/")

try:
    element = WebDriverWait(driver,20).until(
```

```
        EC.presence_of_element_located((By.ID, "email"))
    )
finally:
    driver.quit()
```

30.JavaScript Handling from selenium

```
import webdriverimport time
driver = webdriver.Chrome() driver.maximize_window()
driver.get("https://www.tutorialspoint.com/index.htm")
driver.execute_script("window.scrollTo(0, document.body.scrollHeight);")
time.sleep(2)
driver.close()
driver.quit()
print("JavaScript Handling done")
```