

软件测试上机报告



第二次上机作业

学	院智能与计算学部
专	业 软件工程
姓	名 崔东浩
学	号 3017218089
年	级 2017 级
班	级 2 班

一、实验要求

Tasks:

1. Install Selenium with Eclipse.
2. Install Firefox and SeleniumIDE plugin.
3. Try to record and export scripts using SeleniumIDE.
4. Please complete the following task using Selenium Webdriver:
"Selenium Lab2020.xlsx" contains information about the students,
and <https://103.120.226.190/selenium-demo/git-repo> can view
someone's information after logging in (student id as username, git
address as password). Please check each record in the excel to make
sure that each student's information is consistent with the
information on the website.

Requirements for the experiment:

1. Finish the tasks above individually.
2. Check in your java code to Github or gitee
3. Please send your experiment report to 智慧树, the following
information should be included in your report:
 - a) The brief description that you install Selenium, Firefox, and
SeleniumIDE.
 - b) Steps for recording and exporting scripts.
 - c) Steps for testing the website using Selenium.

二、源代码

```
public static void main(String[] args) throws IOException {
    String filename=System.getProperty("user.dir")+"/Selenium+Lab2020.xlsx";
    String driverPath = System.getProperty("user.dir") + "/src/resources/driver/chromedriver.exe";
    System.setProperty("webdriver.chrome.driver", driverPath);
    WebDriver driver=new ChromeDriver();

    //二、定义要访问的网址
    String baseUrl = "http://103.120.226.190/selenium-demo/git-repo";
    driver.get(baseUrl);

    InputStream is =null;
    Workbook workbook=null;
    is =new FileInputStream(filename);
    if(filename.endsWith(".xlsx")) {
        workbook=new XSSFWorkbook(is);
    }else if (filename.endsWith(".xls")) {
        workbook=new HSSFWorkbook(is);
    }
    is.close();
    //读取sheet表的内容
    Sheet sheet=workbook.getSheetAt(0);
    //获取行
    Iterator<Row> rows= sheet.rowIterator();

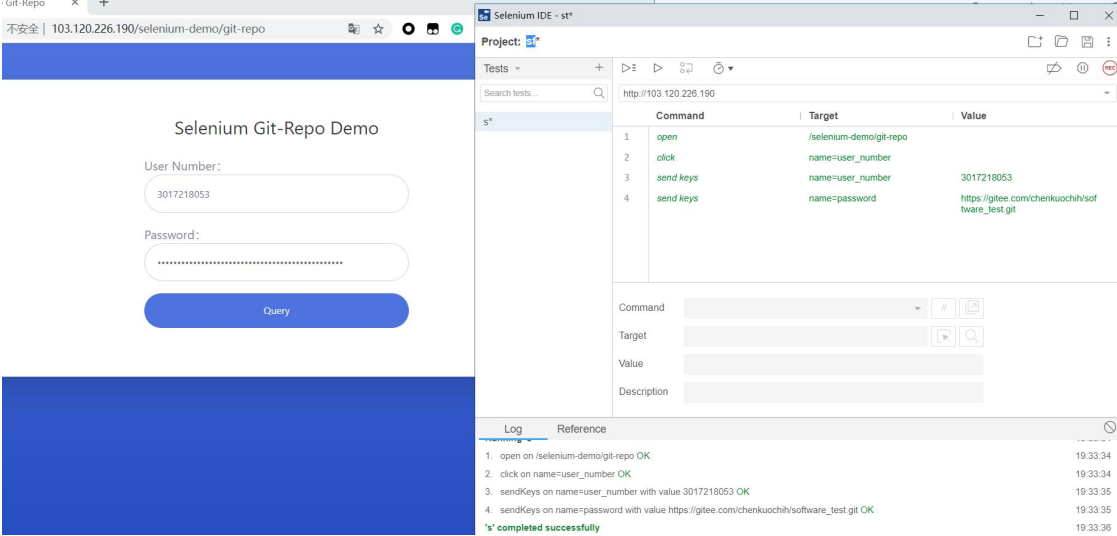
    Row row;
    Cell cell;
    int row_max=20;
    String user_name=null;
    String pass_word=null;

    for(int i=0;i<row_max;i++) {
        WebElement username=driver.findElement(By.name("user_number"));
        WebElement password=driver.findElement(By.name("password"));

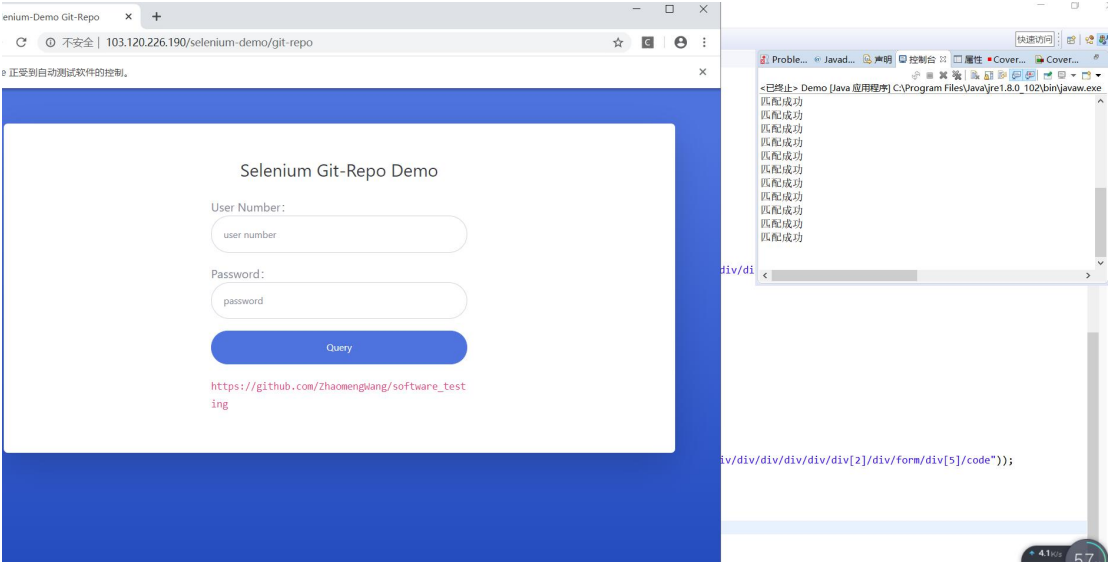
        for(int i=0;i<row_max;i++) {
            WebElement username=driver.findElement(By.name("user_number"));
            WebElement password=driver.findElement(By.name("password"));
            WebElement btn=driver.findElement(By.xpath("/html/body/div/div/div/div/div/div/div[2]/div/form/div[3]/input"));
            if(rows.hasNext()) {
                row=rows.next();
                Iterator<Cell> cells=row.cellIterator();
                if(cells.hasNext()) {
                    cell=cells.next();
                    user_name=cell.getStringCellValue();
                    cell=cells.next();
                    pass_word=cell.getStringCellValue();
                }
            }
            username.sendKeys(user_name);
            password.sendKeys(pass_word);
            btn.click();
            WebElement result=driver.findElement(By.xpath("/html/body/div/div/div/div/div/div/div[2]/div/form/div[5]/code"));
            if(result.getText().equals(pass_word)) {
                System.out.println("匹配成功");
            }
        }
        driver.close();
    }
}
```

三、运行结果

1.selenium IDE(chrome 浏览器)



2.selenium webdriver



四、简要说明

1. 下载 chrome 的 seleniumide 扩展

 mooikfahbckldjindioackbalphokd-3.17.0-Crx4Chrome.com.crx	2020/3/23 15:48	CRX 文件	4,039 KB
--	-----------------	--------	----------

安装到 chrome 中，进行测试。

下载

 selenium-java-3.141.59.zip	D:\Java\Java课程\software test\lib	2020/3/23 16:17	7,361 KB	WinRAR ZIP 压缩...	2020/3/23 15:21
--	----------------------------------	-----------------	----------	------------------	-----------------

并进行构建

2.分别选中用户名和密码部分，选择 send keys 的命令，填入 xlsx 中的内容。

The screenshot shows the Selenium IDE interface. The top bar indicates the project is 's*'. The main area displays a list of test steps:

Step	Command	Target	Value
1	open	/selenium-demo/git-repo	
2	click	name=user_number	
3	send keys	name=user_number	3017218053
4	send keys	name=password	https://gitee.com/chenkuochih/software_test.git

A context menu is open over the first step, showing options: Rename, Duplicate, Delete, and Export. Below the table, there are input fields for Command, Target, Value, and Description. The bottom panel shows a log of the test execution, indicating that all steps completed successfully.

测试完成后导出为 java 文件。

```
6 import static org.hamcrest.CoreMatchers.is;
7 import static org.hamcrest.CoreMatchers.isNot;
8 import org.openqa.selenium.By;
9 import org.openqa.selenium.WebDriver;
10 import org.openqa.selenium.firefox.FirefoxDriver;
11 import org.openqa.selenium.chrome.ChromeDriver;
12 import org.openqa.selenium.remote.RemoteWebDriver;
13 import org.openqa.selenium.remote.DesiredCapabilities;
14 import org.openqa.selenium.Dimension;
15 import org.openqa.selenium.WebElement;
16 import org.openqa.selenium.interactions.Actions;
17 import org.openqa.selenium.support.ui.ExpectedConditions;
18 import org.openqa.selenium.support.ui.WebDriverWait;
19 import org.openqa.selenium.JavascriptExecutor;
20 import org.openqa.selenium.Alert;
21 import org.openqa.selenium.Keys;
22 import java.util.*;
23 import java.net.MalformedURLException;
24 import java.net.URL;
25 public class STest {
26     private WebDriver driver;
27     private Map<String, Object> vars;
28     JavascriptExecutor js;
29     @Before
30     public void setUp() {
31         driver = new ChromeDriver();
32         js = (JavascriptExecutor) driver;
33         vars = new HashMap<String, Object>();
34     }
35     @After
36     public void tearDown() {
37         driver.quit();
38     }
39     @Test
40     public void s() {
41         driver.get("http://103.120.226.190/selenium-demo/git-repo");
42         driver.findElement(By.name("user_number")).click();
43         driver.findElement(By.name("user_number")).sendKeys("3017218053");
44         driver.findElement(By.name("password")).sendKeys("https://gitee.com/chenkuochih/software_test.git");
45     }
46 }
```

3.生成 chromedriver，并设定网址。

```
WebDriver driver=new ChromeDriver();

//二、定义要访问的网址
String baseUrl = "http://103.120.226.190/selenium-demo/git-repo";
driver.get(baseUrl);
```

选定 chromedriver.exe

```
String driverPath = System.getProperty("user.dir") + "/src/resources/driver/chromedriver.exe";
System.setProperty("webdriver.chrome.driver", driverPath);
```

通过 IO 流获取 xlsx 中的表格内容，使用自带的 Iterator 逐个获取。

```
InputStream is =null;
Workbook workbook=null;
is =new FileInputStream(filename);
if(filename.endsWith(".xlsx")) {
    workbook=new XSSFWorkbook(is);
}else if (filename.endsWith(".xls")) {
    workbook=new HSSFWorkbook(is);
}
is.close();
//读取sheet表的内容
Sheet sheet=workbook.getSheetAt(0);
//获取行
Iterator<Row> rows= sheet.rowIterator();
```

获取网页内的元素

```
for(int i=0;i<row_max;i++) {
    WebElement username=driver.findElement(By.name("user_number"));
    WebElement password=driver.findElement(By.name("password"));
    WebElement btn=driver.findElement(By.xpath("/html/body/div/div/div/div/div/div/div[2]/div/form/div[3]/input"));
}
```

逐个获取表格的内容

```
if(rows.hasNext()) {
    row=rows.next();
    Iterator<Cell> cells=row.cellIterator();
    if(cells.hasNext()) {
        cell=cells.next();
        user_name=cell.getStringCellValue();
        cell=cells.next();
        pass_word=cell.getStringCellValue();
    }
}
```

填入表格内容后提交之后获取结果的元素位置，如若相同，则在控制台输出“匹配成功”

```
username.sendKeys(user_name);
password.sendKeys(pass_word);
btn.click();
WebElement result=driver.findElement(By.xpath("/html/body/div/div/div/div/div/div/div[2]/div/form/div[5]/code"));
if(result.getText().equals(pass_word)) {
    System.out.println("匹配成功");
}
```

driver 关闭

```
driver.close();
```