# 18CS2009 – 20CS2050 L – Software Engineering – URK20CS2001

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|---|---|
| Ex. No: 9 | **AUTOMATION TESTING ON WEB PAGES USING SELENIUM** |
| Date: 14/10/2021 | |
| Video Link: | https://drive.google.com/file/d/1PQADTm5pzTzgAwcskkI7ZJS-4OmUThoi/view?usp=sharing |

**OBJECTIVE**

The objective of the experiment is to perform automation testing on a project web page E-Learning System using selenium framework on different browsers using Java/Python/C#

**DESCRIPTION:**

A webpage is to be exhaustively tested using different browsers using selenium framework. A webpage with multiple form fields (Text box, radio button, drop down buttons, buttons, hyperlink) is created and uploaded into a webserver (IIS/Apache). The content and the form fields in the webpage is individually checked. Also, the client-side validation performed using JavaScript is also to be evaluated. The evaluation is to be carried out by developing various test cases for every individual web component. To this end, an extensive software testing framework is required. Selenium is a free opensource automating and testing framework that supports C#, Java, Perl, PHP, Python and Ruby. Selenium Web driver provides the functionality of conducting various testcases.

**PROCEDURE:**

**Server side:**

- Load the designed Webpage to be tested in the server.
  (IIS Server- C:\inetpub\wwwroot)
  (Apache Server- …….)

**Client side:**

- Download all the necessary selenium packages based on the host machine requirement (windows/mac/linux, x86/x64)
- Download the corresponding browser's (Chrome/opera/firefox) web driver to integrate the IDE & browser.
- Using the IDE (Eclipse/Jupyter) create a new Java/Python program.
- Import all the required selenium packages in the java program.
- Using setProperty(), provide the name and location of the browser's webdriver.
- And a WebDriver class instances of the browser is created and it is used to access the webpage.
- The method navigate().to("URL") launches the website in the test browser.
- Every component in a webpage is accessed by the method findElement() and specific entities using the following
  o findElement(By.id("identifier value"))
  o findElement(By.name("name"))nd
  o findElement(By.linkText("Link text"))
  o findElement(By.className("class name"))
- Values are passed on using the method sendKeys("value").
- Inner HTML values are obtained using the method getText().
- Values from forms are obtained using the method getAttribute("value").
- Browser events such as click, clear, back, forward, refresh, and close are performed using the methods click(), clear(), back(), forward(), refresh(), quit() respectively.
- Also, moving between windows and frames are performed using the methods switchTo().window("windowName") and switchTo().frame("frameName");
- Javascript method is invoked by the method executeScript() of the class JavascriptExecuter

**SOURCE CODE (Chrome Browser):**

```
package selenium;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;
import org.openqa.selenium.support.ui.FluentWait;
import org.openqa.selenium.support.ui.Select;



public class chrome {

	public static void main(String[] args) throws InterruptedException {
		//Opening the chrome borwser
		System.setProperty("webdriver.chrome.driver", "D:\\Software-
Engineering-Lab\\Exp-9-Selenium\\chromedriver_win32\\chromedriver.exe");
		WebDriver webDriver = new ChromeDriver();

		//Maximize the Window
		webDriver.manage().window().maximize();

		//Navigate to the URL
		webDriver.get("https://www.rubangino.in/EXP-9/index.html");

		System.out.println("\nWeb Testing Started Successfully!!");

		System.out.println("\nTEST CASES");

		//Test Case 1: Verify url getCurrentURL()
		System.out.println("\nTest Case 1: Verifying the URL");
		String desiredURL = "https://www.rubangino.in/EXP-9/index.html";
		String acutalURL = webDriver.getCurrentUrl();
		System.out.println("Desired URL: " + desiredURL);
		System.out.println("Acutal URL: " + acutalURL);

		if (acutalURL.equals(desiredURL)) {
			System.out.println("Status: URL is Correct");
			System.out.println("Summary -> Test Case 1: Passed");
		}
		else {
			System.out.println("Status: URL is Wrong");
			System.out.println("Summary -> Test Case 1: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 2: Verify the Page title
		System.out.println("Test Case 2: Verifying the Page TITLE");
```

```
		String actualTitle = webDriver.getTitle();
		String desiredTitle = "E-Learning System";
		System.out.println("Actual TITLE: " + actualTitle);
		System.out.println("Desired TITLE: " + desiredTitle);

		if(actualTitle.equals(desiredTitle)) {
			System.out.println("Status: Title is Correct");
			System.out.println("Summary -> Test Case 2: Passed");
		}
		else {
			System.out.println("Status: Title is Wrong");
			System.out.println("Summary -> Test Case 2: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 3: Testing Home page Register Button
		System.out.println("Test Case 3: Testing Register Button");
		webDriver.findElement(By.id("register-btn")).click();

		String desiredRegURL = "https://www.rubangino.in/EXP-
9/index.html#register";

		String reg_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + reg_URL);
		System.out.println("Desired URL: " + desiredRegURL);

		if(reg_URL.equals(desiredURL)) {
			System.out.println("Register button is working Fine.");
			System.out.println("Summary -> Test Case 3: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 3: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 4: Testing About Navigation button
		System.out.println("Test Case 4: Testing About Navigation Button");
		webDriver.findElement(By.id("about-btn")).click();

		String desiredAboutURL = "https://www.rubangino.in/EXP-
9/index.html#about";

		String about_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + about_URL);
		System.out.println("Desired URL: " + desiredAboutURL);

		if(about_URL.equals(desiredAboutURL)) {
			System.out.println("About Button Working Successfull");
			System.out.println("Summary -> Test Case 4: Passed");
		}
		else {
```

```
			System.out.println("Summary -> Test Case 4: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 5: Testing Register Navigation button
		System.out.println("Test Case 5: Testing Register Navigation
Button");
		webDriver.findElement(By.id("register-btn")).click();

		String desiredRegisterURL = "https://www.rubangino.in/EXP-
9/index.html#register";

		String reg_nav_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + reg_nav_URL);
		System.out.println("Desired URL: " + desiredRegisterURL);

		if(reg_nav_URL.equals(desiredRegisterURL)) {
			System.out.println("Register Nav Button Working Successfull");
			System.out.println("Summary -> Test Case 5: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 5: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 6: Testing Contact Navigation button
		System.out.println("Test Case 6: Testing Contact Navigation
Button");
		webDriver.findElement(By.id("contact-btn")).click();

		String desiredContactURL = "https://www.rubangino.in/EXP-
9/index.html#contact";

		String contactURL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + contactURL);
		System.out.println("Desired URL: " + desiredContactURL);

		if(contactURL.equals(desiredContactURL)) {
			System.out.println("Register Nav Button Working Successfull");
			System.out.println("Summary -> Test Case 6: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 6: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Testing Registration Form
```

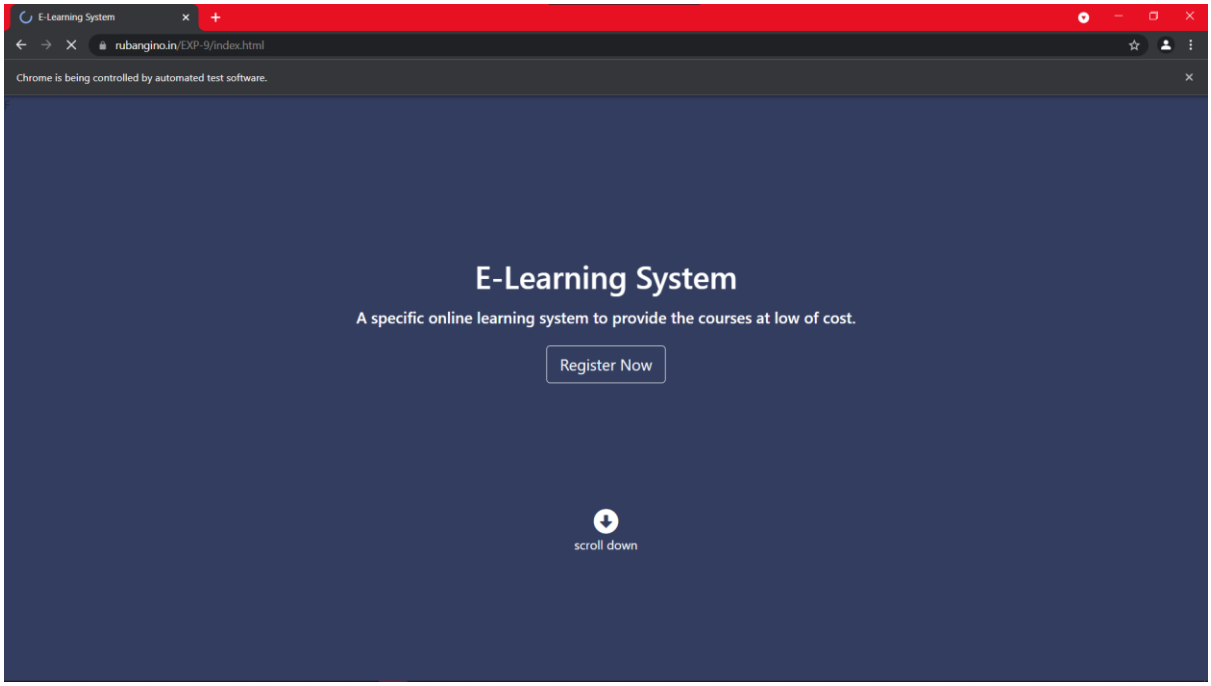
```
//Test Case 7: Testing First Name
webDriver.get("https://www.rubangino.in/EXP-9/index.html#register");

System.out.println("Test Case 7: Testing First Name");
WebElement firstName = webDriver.findElement((By.id("fname")));
firstName.sendKeys("Ruban Gino");

String string1 = firstName.getAttribute("value");
System.out.println("Input: " + string1);

if(string1.length() <= 10) {
	System.out.println("Summary -> Test Case 7: Passed");
}
else {
	System.out.println("Summary -> Test Case 7: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 8: Testing Last Name
System.out.println("Test Case 8: Testing Last Name");
WebElement lastName = webDriver.findElement((By.id("lname")));
lastName.sendKeys("Singh");

String string2 = lastName.getAttribute("value");
System.out.println("Input: " + string2);

if(string2.length() <= 10) {
	System.out.println("Summary -> Test Case 8: Passed");
}
else {
	System.out.println("Summary -> Test Case 8: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 9: Testing User Name
System.out.println("Test Case 9: Testing User Name");
WebElement userName = webDriver.findElement((By.id("username")));
userName.sendKeys("rubangino");

String string3 = userName.getAttribute("value");
System.out.println("Input: " + string3);

if(string3.length() !=0 ) {
	System.out.println("Summary -> Test Case 9: Passed");
}
else {
	System.out.println("Summary -> Test Case 9: Failed");
}
System.out.println();
```

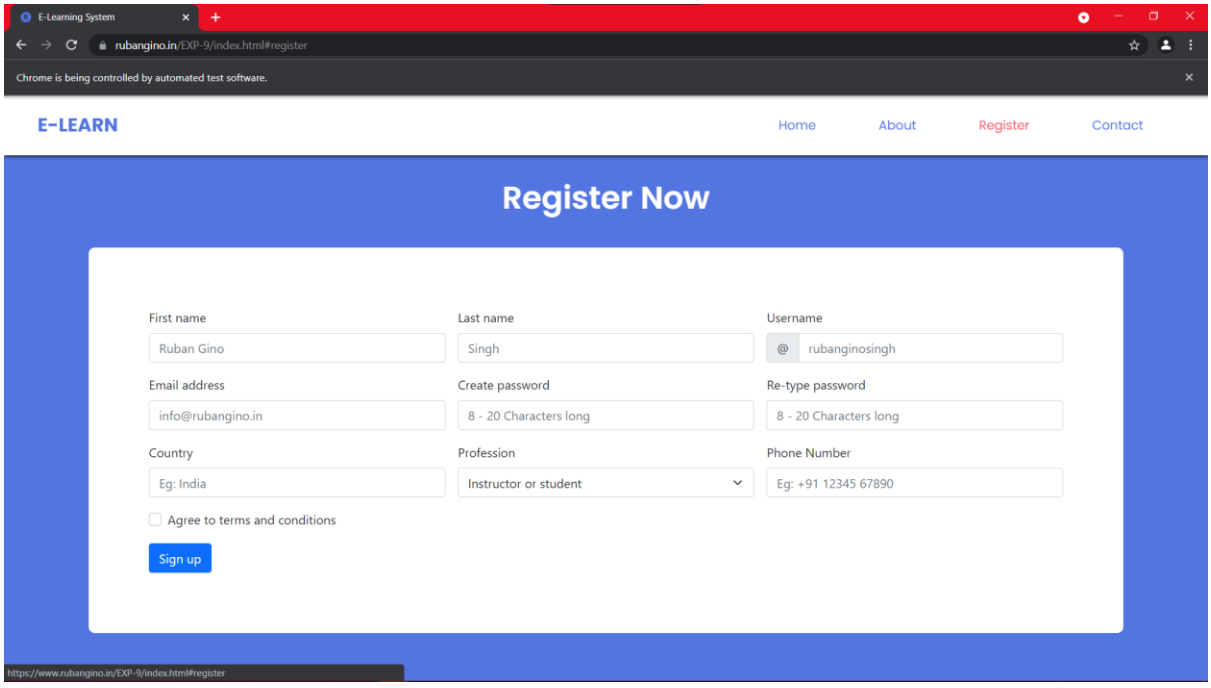
```
		Thread.sleep(3000);


		//Test Case 10: Testing Email id
		System.out.println("Test Case 10: Testing Email Id");
		WebElement emailId = webDriver.findElement((By.id("email")));
		emailId.sendKeys("info@rubangino.in");

		String string4 = emailId.getAttribute("value");
		System.out.println("Input: " + string4);

		if(string4.contains("@") && string4.contains(".")) {
			System.out.println("Summary -> Test Case 10: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 10: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 11: Testing Create Password
		System.out.println("Test Case 11: Testing Create Password Input");
		WebElement createPassword =
webDriver.findElement((By.id("createPassword")));
		createPassword.sendKeys("E-Learning@#$System!@#$");

		String string5 = createPassword.getAttribute("value");
		System.out.println("Input: " + string5);

		if(string5.length() >= 8 && string5.length() <= 20) {
			System.out.println("Summary -> Test Case 11: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 11: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 12: Testing Re-Type Password
		System.out.println("Test Case 12: Testing Re Type Password Input");
		WebElement reTypePassword =
webDriver.findElement((By.id("reTypePassword")));
		reTypePassword.sendKeys("E-Learning@#$System!@#$");

		String string6 = createPassword.getAttribute("value");
		System.out.println("Input: " + string6);

		if(string5 == string6) {
			System.out.println("Summary -> Test Case 12: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 12: Failed");
		}
```

```
System.out.println();


Thread.sleep(3000);


//Test Case 13: Testing Country
System.out.println("Test Case 13: Testing Country Input");
WebElement countryInput = webDriver.findElement((By.id("country")));
countryInput.sendKeys("India");

String string7 = countryInput.getAttribute("value");
System.out.println("Input: " + string7);

if(string7.length() <= 15 && string7 != "!@#$%^&*()_-=<>?{}|][:;") {
	System.out.println("Summary -> Test Case 13: Passed");
}
else {
	System.out.println("Summary -> Test Case 13: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 14: Testing Profession DropDown
System.out.println("Test Case 14: Testing Drop Down");
WebElement profession = webDriver.findElement(By.id("profession"));
Select dropdown = new Select(profession);

dropdown.selectByVisibleText("Student");

String string9 = profession.getAttribute("value");
System.out.println("Input: " + string9);

String student = "Student";
String instructor = "Instructor";

if(string9.equals(student) || string9.equals(instructor)) {
	System.out.println("Summary -> Test Case 14: Passed");
}
else {
	System.out.println("Summary -> Test Case 14: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 15: Testing phone number
System.out.println("Test Case 15: Testing Phone Number");
WebElement phoneNumber = webDriver.findElement((By.id("phone")));
phoneNumber.sendKeys("+919344232829");

String string8 = phoneNumber.getAttribute("value");
System.out.println("Input: " + string8);
```

```
		if(string8.contains("+") && string8.length() <= 13) {
			System.out.println("Summary -> Test Case 15: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 15: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 16: Testing Check Boxes
		System.out.println("Test Case 16: Testing Terms Check Box");
		webDriver.findElement(By.xpath("//*[@id=\"terms\"]")).click();


	if(webDriver.findElement(By.xpath("//*[@id=\"terms\"]")).isSelected()) {
			System.out.println("Summary -> Test Case 16: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 16: Failed");
		}

		webDriver.findElement(By.id("submit-button")).click();

		Thread.sleep(3000);

		//Getting Alert
		System.out.println();
		String AlertText = webDriver.switchTo().alert().getText();
		webDriver.switchTo().alert().accept();
		System.out.println("Alert text is: " + AlertText);
		System.out.println("\nAlert Accepted!!");

		Thread.sleep(5000);


		//Close the browser
		webDriver.close();
		System.out.println("\nWeb Testing Ended Successfully!");
	}

}
```

## OUTPUT (Chrome Browser):



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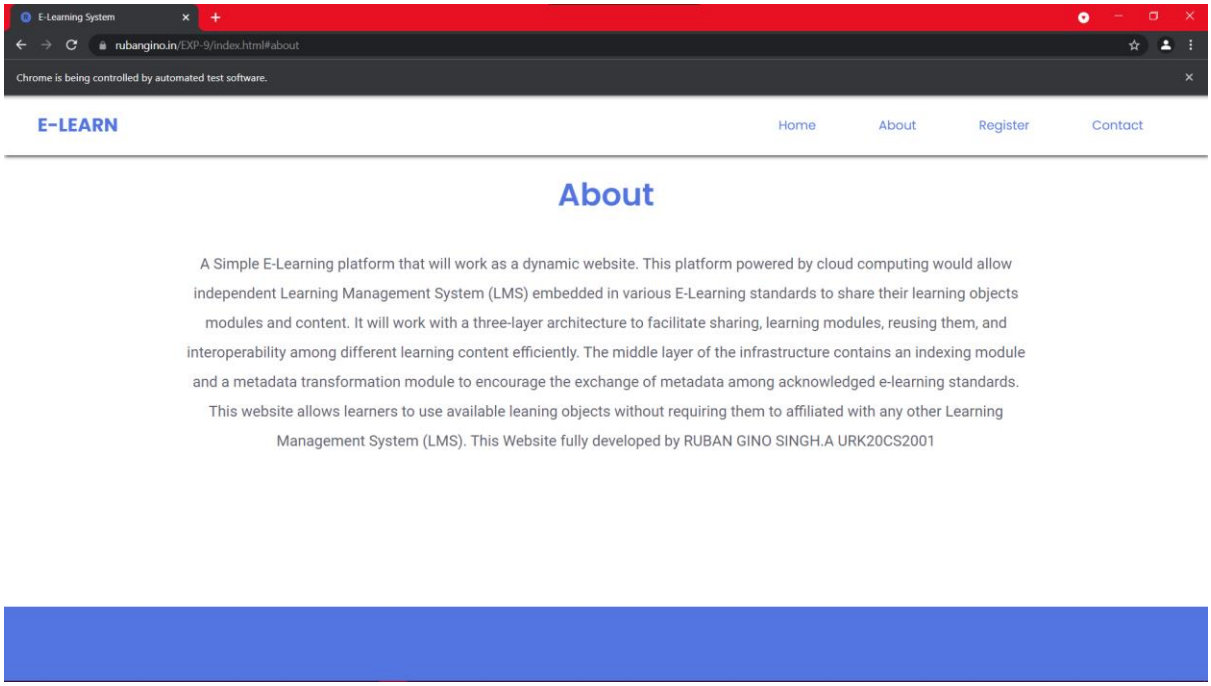
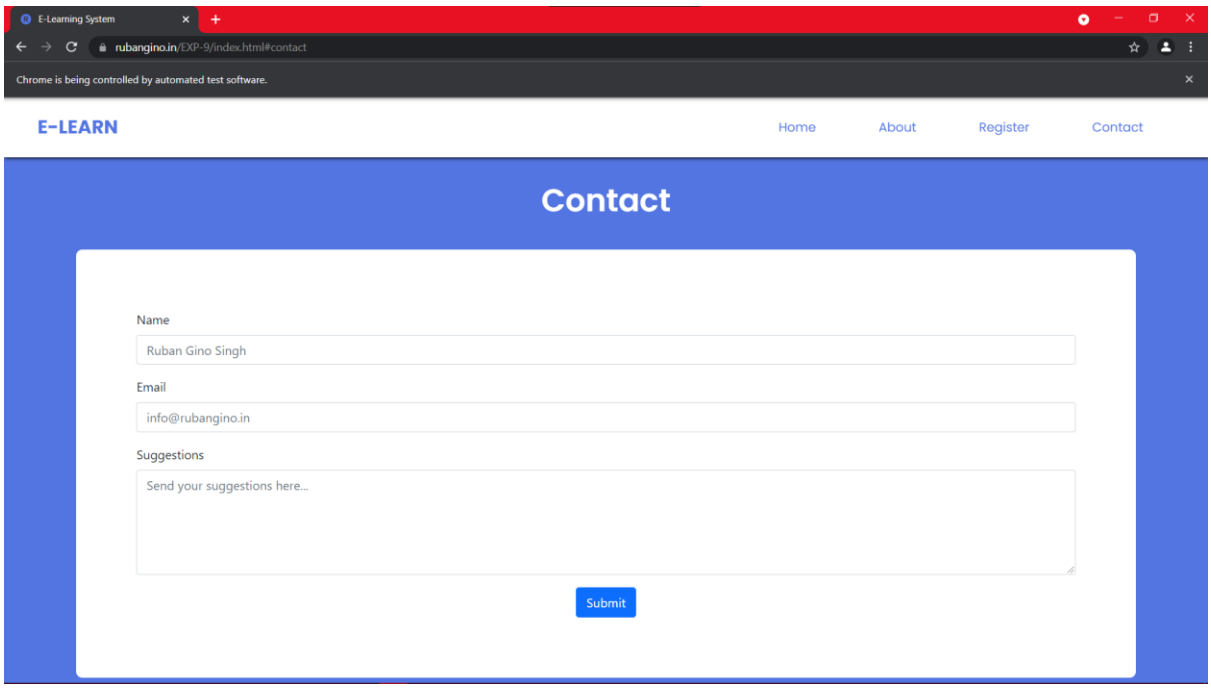
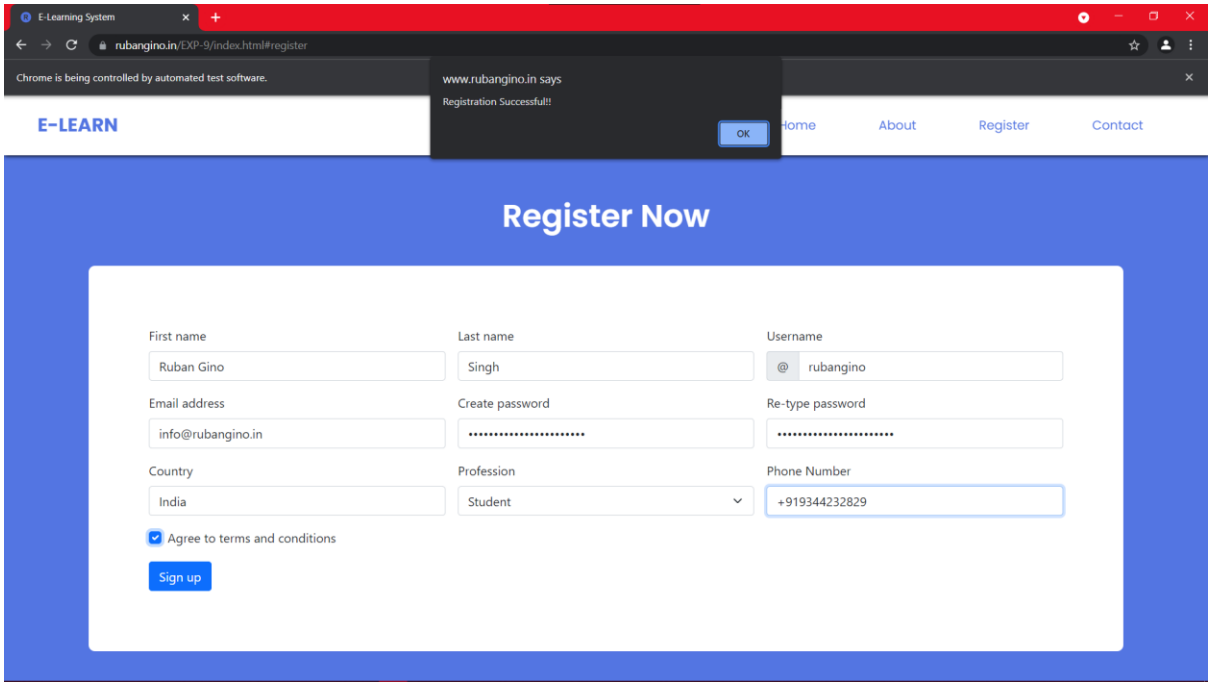





**Browser: Chrome Browser**

```
Console ×
<terminated> chrome [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (10-Oct-2021, 7:48:10 pm – 7:49:12 pm)
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Oct 10, 2021 7:48:11 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C

Web Testing Started Successfully!!

TEST CASES

Test Case 1: Verifying the URL
Desired URL: https://www.rubangino.in/EXP-9/index.html
Acutal URL: https://www.rubangino.in/EXP-9/index.html
Status: URL is Correct
Summary -> Test Case 1: Passed

Test Case 2: Verifying the Page TITLE
Actual TITLE: E-Learning System
Desired TITLE: E-Learning System
Status: Title is Correct
Summary -> Test Case 2: Passed

Test Case 3: Testing Register Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#register
Desired URL: https://www.rubangino.in/EXP-9/index.html#register
Summary -> Test Case 3: Failed

Test Case 4: Testing About Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#about
Desired URL: https://www.rubangino.in/EXP-9/index.html#about
About Button Working Successfull
Summary -> Test Case 4: Passed

Test Case 5: Testing Register Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#register
Desired URL: https://www.rubangino.in/EXP-9/index.html#register
Register Nav Button Working Successfull
Summary -> Test Case 5: Passed
```

Console ×

<terminated> chrome [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (10-Oct-2021, 7:48:10 pm – 7:49:12 pm)

```
Test Case 6: Testing Contact Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#contact
Desired URL: https://www.rubangino.in/EXP-9/index.html#contact
Register Nav Button Working Successfull
Summary -> Test Case 6: Passed

Test Case 7: Testing First Name
Input: Ruban Gino
Summary -> Test Case 7: Passed

Test Case 8: Testing Last Name
Input: Singh
Summary -> Test Case 8: Passed

Test Case 9: Testing User Name
Input: rubangino
Summary -> Test Case 9: Passed

Test Case 10: Testing Email Id
Input: info@rubangino.in
Summary -> Test Case 10: Passed

Test Case 11: Testing Create Password Input
Input: E-Learning@#$System!@#$
Summary -> Test Case 11: Failed

Test Case 12: Testing Re Type Password Input
Input: E-Learning@#$System!@#$
Summary -> Test Case 12: Failed

Test Case 13: Testing Country Input
Input: India
Summary -> Test Case 13: Passed
```

```
Test Case 14: Testing Drop Down
Input: Student
Summary -> Test Case 14: Passed

Test Case 15: Testing Phone Number
Input: +919344232829
Summary -> Test Case 15: Passed

Test Case 16: Testing Terms Check Box
Summary -> Test Case 16: Passed

Alert text is: Registration Successful!!

Alert Accepted!!

Web Testing Ended Successfully!
```

**SOURCE CODE (Opera Browser):**

```
package selenium;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;
import org.openqa.selenium.opera.OperaDriver;
import org.openqa.selenium.support.ui.FluentWait;
import org.openqa.selenium.support.ui.Select;


//import com.sun.org.apache.bcel.internal.generic.Select;

public class opera {

	public static void main(String[] args) throws InterruptedException {
		//Opening the Opera borwser
		System.setProperty("webdriver.opera.driver", "D:\\Software-
Engineering-Lab\\Exp-9-
Selenium\\operadriver_win64\\operadriver_win64\\operadriver.exe");
		WebDriver webDriver = new OperaDriver();

		//Maximize the Window
		webDriver.manage().window().maximize();

		//Navigate to the URL
		webDriver.get("https://www.rubangino.in/EXP-9/index.html");

		System.out.println("\nWeb Testing Started Successfully!!");

		System.out.println("\nTEST CASES");

		//Test Case 1: Verify url getCurrentURL()
		System.out.println("\nTest Case 1: Verifying the URL");
		String desiredURL = "https://www.rubangino.in/EXP-9/index.html";
		String acutalURL = webDriver.getCurrentUrl();
		System.out.println("Desired URL: " + desiredURL);
		System.out.println("Acutal URL: " + acutalURL);

		if (acutalURL.equals(desiredURL)) {
			System.out.println("Status: URL is Correct");
			System.out.println("Summary -> Test Case 1: Passed");
		}
		else {
			System.out.println("Status: URL is Wrong");
			System.out.println("Summary -> Test Case 1: Failed");
		}
		System.out.println();
```

```
		Thread.sleep(3000);


		//Test Case 2: Verify the Page title
		System.out.println("Test Case 2: Verifying the Page TITLE");
		String actualTitle = webDriver.getTitle();
		String desiredTitle = "E-Learning System";
		System.out.println("Actual TITLE: " + actualTitle);
		System.out.println("Desired TITLE: " + desiredTitle);

		if(actualTitle.equals(desiredTitle)) {
			System.out.println("Status: Title is Correct");
			System.out.println("Summary -> Test Case 2: Passed");
		}
		else {
			System.out.println("Status: Title is Wrong");
			System.out.println("Summary -> Test Case 2: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 3: Testing Home page Register Button
		System.out.println("Test Case 3: Testing Register Button");
		webDriver.findElement(By.id("register-btn")).click();

		String desiredRegURL = "https://www.rubangino.in/EXP-
9/index.html#register";

		String reg_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + reg_URL);
		System.out.println("Desired URL: " + desiredRegURL);

		if(reg_URL.equals(desiredURL)) {
			System.out.println("Register button is working Fine.");
			System.out.println("Summary -> Test Case 3: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 3: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 4: Testing About Navigation button
		System.out.println("Test Case 4: Testing About Navigation Button");
		webDriver.findElement(By.id("about-btn")).click();

		String desiredAboutURL = "https://www.rubangino.in/EXP-
9/index.html#about";

		String about_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + about_URL);
		System.out.println("Desired URL: " + desiredAboutURL);
```

```
		if(about_URL.equals(desiredAboutURL)) {
			System.out.println("About Button Working Successfull");
			System.out.println("Summary -> Test Case 4: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 4: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 5: Testing Register Navigation button
		System.out.println("Test Case 5: Testing Register Navigation
Button");
		webDriver.findElement(By.id("register-btn")).click();

		String desiredRegisterURL = "https://www.rubangino.in/EXP-
9/index.html#register";

		String reg_nav_URL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + reg_nav_URL);
		System.out.println("Desired URL: " + desiredRegisterURL);

		if(reg_nav_URL.equals(desiredRegisterURL)) {
			System.out.println("Register Nav Button Working Successfull");
			System.out.println("Summary -> Test Case 5: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 5: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 6: Testing Contact Navigation button
		System.out.println("Test Case 6: Testing Contact Navigation
Button");
		webDriver.findElement(By.id("contact-btn")).click();

		String desiredContactURL = "https://www.rubangino.in/EXP-
9/index.html#contact";

		String contactURL = webDriver.getCurrentUrl();
		System.out.println("Actual URL: " + contactURL);
		System.out.println("Desired URL: " + desiredContactURL);

		if(contactURL.equals(desiredContactURL)) {
			System.out.println("Register Nav Button Working Successfull");
			System.out.println("Summary -> Test Case 6: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 6: Failed");
		}
		System.out.println();
```

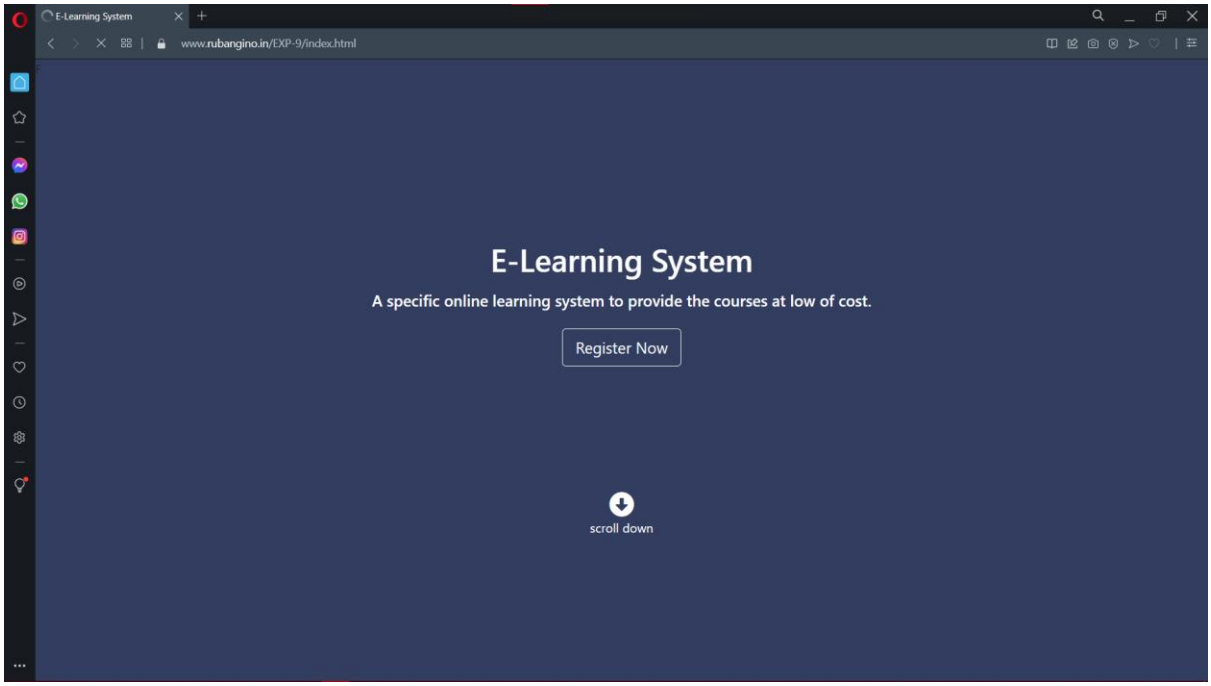
```
Thread.sleep(3000);


//Testing Registration Form
//Test Case 7: Testing First Name
webDriver.get("https://www.rubangino.in/EXP-9/index.html#register");

System.out.println("Test Case 7: Testing First Name");
WebElement firstName = webDriver.findElement((By.id("fname")));
firstName.sendKeys("Ruban Gino");

String string1 = firstName.getAttribute("value");
System.out.println("Input: " + string1);

if(string1.length() <= 10) {
	System.out.println("Summary -> Test Case 7: Passed");
}
else {
	System.out.println("Summary -> Test Case 7: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 8: Testing Last Name
System.out.println("Test Case 8: Testing Last Name");
WebElement lastName = webDriver.findElement((By.id("lname")));
lastName.sendKeys("Singh");

String string2 = lastName.getAttribute("value");
System.out.println("Input: " + string2);

if(string2.length() <= 10) {
	System.out.println("Summary -> Test Case 8: Passed");
}
else {
	System.out.println("Summary -> Test Case 8: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 9: Testing User Name
System.out.println("Test Case 9: Testing User Name");
WebElement userName = webDriver.findElement((By.id("username")));
userName.sendKeys("rubangino");

String string3 = userName.getAttribute("value");
System.out.println("Input: " + string3);

if(string3.length() !=0 ) {
	System.out.println("Summary -> Test Case 9: Passed");
}
```

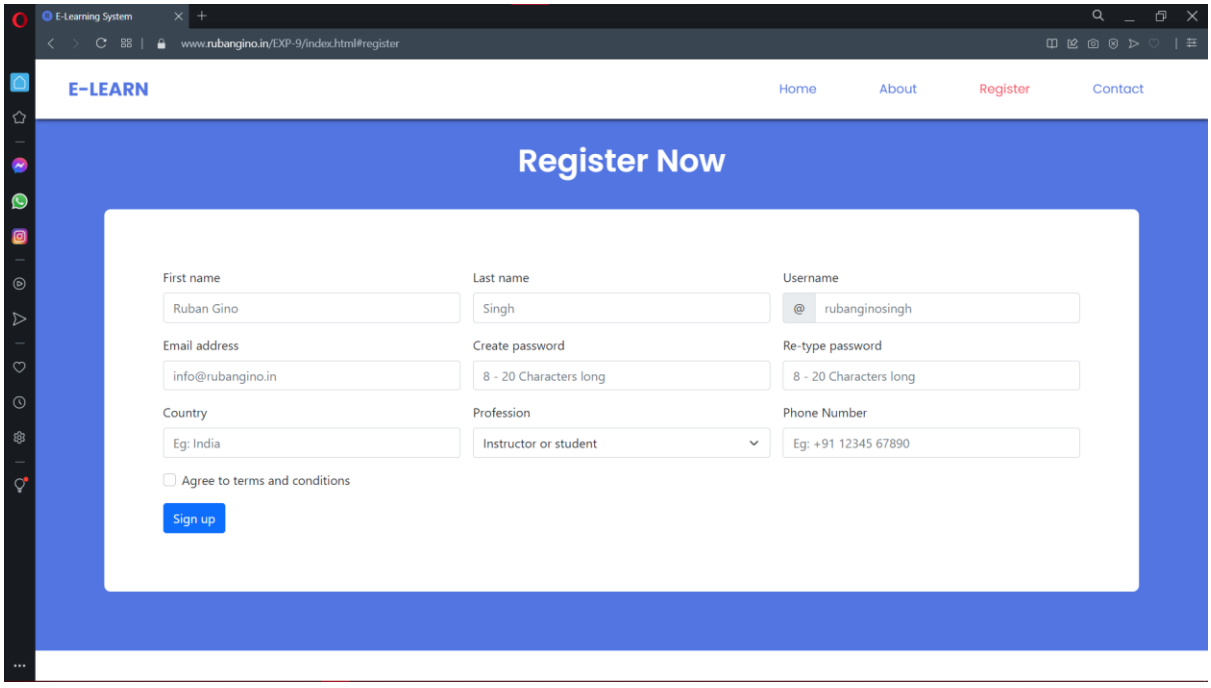
```
		else {
			System.out.println("Summary -> Test Case 9: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 10: Testing Email id
		System.out.println("Test Case 10: Testing Email Id");
		WebElement emailId = webDriver.findElement((By.id("email")));
		emailId.sendKeys("info@rubangino.in");

		String string4 = emailId.getAttribute("value");
		System.out.println("Input: " + string4);

		if(string4.contains("@") && string4.contains(".")) {
			System.out.println("Summary -> Test Case 10: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 10: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 11: Testing Create Password
		System.out.println("Test Case 11: Testing Create Password Input");
		WebElement createPassword =
webDriver.findElement((By.id("createPassword")));
		createPassword.sendKeys("E-Learning@#$System!@#$");

		String string5 = createPassword.getAttribute("value");
		System.out.println("Input: " + string5);

		if(string5.length() >= 8 && string5.length() <= 20) {
			System.out.println("Summary -> Test Case 11: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 11: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 12: Testing Re-Type Password
		System.out.println("Test Case 12: Testing Re Type Password Input");
		WebElement reTypePassword =
webDriver.findElement((By.id("reTypePassword")));
		reTypePassword.sendKeys("E-Learning@#$System!@#$");

		String string6 = createPassword.getAttribute("value");
		System.out.println("Input: " + string6);
```

```
if(string5 == string6) {
	System.out.println("Summary -> Test Case 12: Passed");
}
else {
	System.out.println("Summary -> Test Case 12: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 13: Testing Country
System.out.println("Test Case 13: Testing Country Input");
WebElement countryInput = webDriver.findElement((By.id("country")));
countryInput.sendKeys("India");

String string7 = countryInput.getAttribute("value");
System.out.println("Input: " + string7);

if(string7.length() <= 15 && string7 != "!@#$%^&*()_-=<>?{}|][:;") {
	System.out.println("Summary -> Test Case 13: Passed");
}
else {
	System.out.println("Summary -> Test Case 13: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 14: Testing Profession DropDown
System.out.println("Test Case 14: Testing Drop Down");
WebElement profession = webDriver.findElement(By.id("profession"));
Select dropdown = new Select(profession);

dropdown.selectByVisibleText("Student");

String string9 = profession.getAttribute("value");
System.out.println("Input: " + string9);

String student = "Student";
String instructor = "Instructor";

if(string9.equals(student) || string9.equals(instructor)) {
	System.out.println("Summary -> Test Case 14: Passed");
}
else {
	System.out.println("Summary -> Test Case 14: Failed");
}
System.out.println();


Thread.sleep(3000);


//Test Case 15: Testing phone number
System.out.println("Test Case 15: Testing Phone Number");
```

```
		WebElement phoneNumber = webDriver.findElement((By.id("phone")));
		phoneNumber.sendKeys("+919344232829");

		String string8 = phoneNumber.getAttribute("value");
		System.out.println("Input: " + string8);

		if(string8.contains("+") && string8.length() <= 13) {
			System.out.println("Summary -> Test Case 15: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 15: Failed");
		}
		System.out.println();


		Thread.sleep(3000);


		//Test Case 16: Testing Check Boxes
		System.out.println("Test Case 16: Testing Terms Check Box");
		webDriver.findElement(By.xpath("//*[@id=\"terms\"]")).click();


	if(webDriver.findElement(By.xpath("//*[@id=\"terms\"]")).isSelected()) {
			System.out.println("Summary -> Test Case 16: Passed");
		}
		else {
			System.out.println("Summary -> Test Case 16: Failed");
		}

		webDriver.findElement(By.id("submit-button")).click();

		Thread.sleep(3000);

		//Getting Alert
		System.out.println();
		String AlertText = webDriver.switchTo().alert().getText();
		webDriver.switchTo().alert().accept();
		System.out.println("Alert text is: " + AlertText);
		System.out.println("\nAlert Accepted!!");

		Thread.sleep(5000);


		//Close the browser
		webDriver.close();
		System.out.println("\nWeb Testing Ended Successfully!");
	}

}
```

## OUTPUT (Opera Browser):



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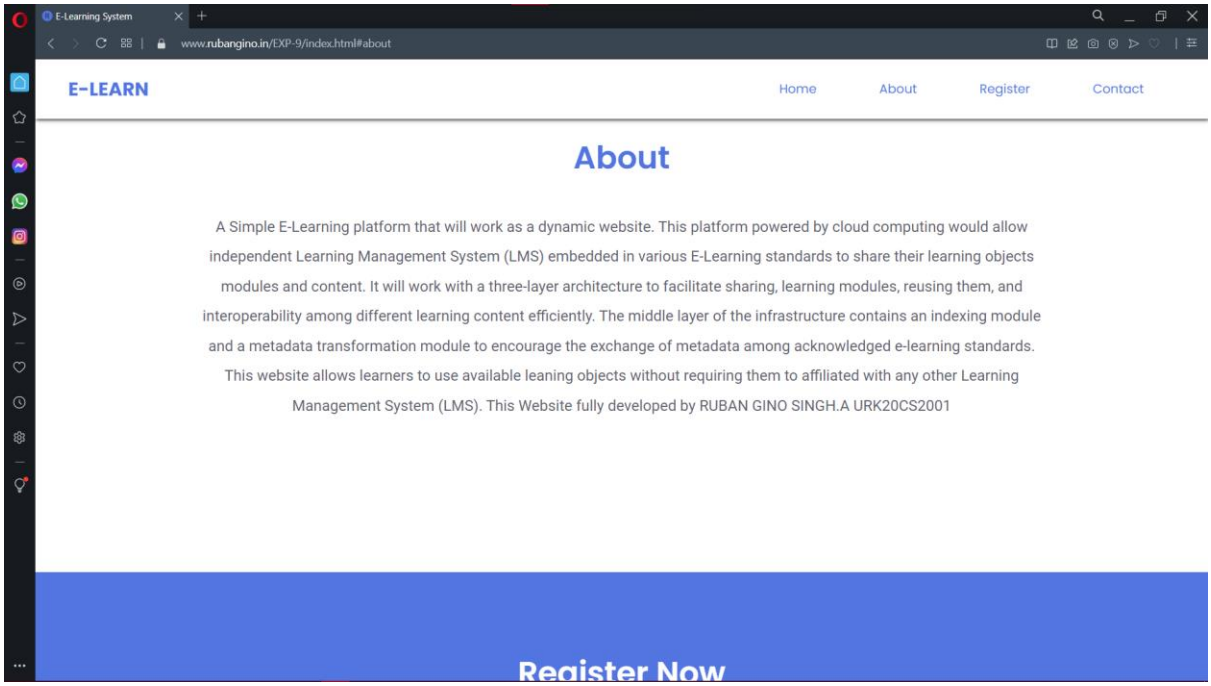


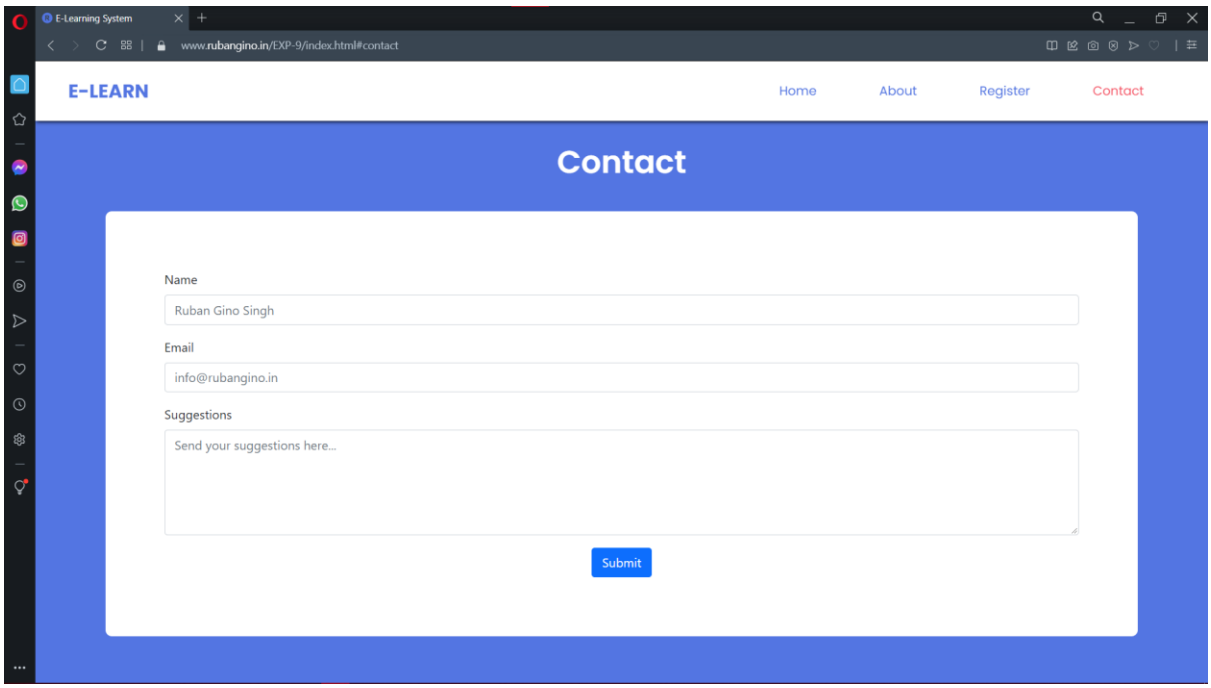

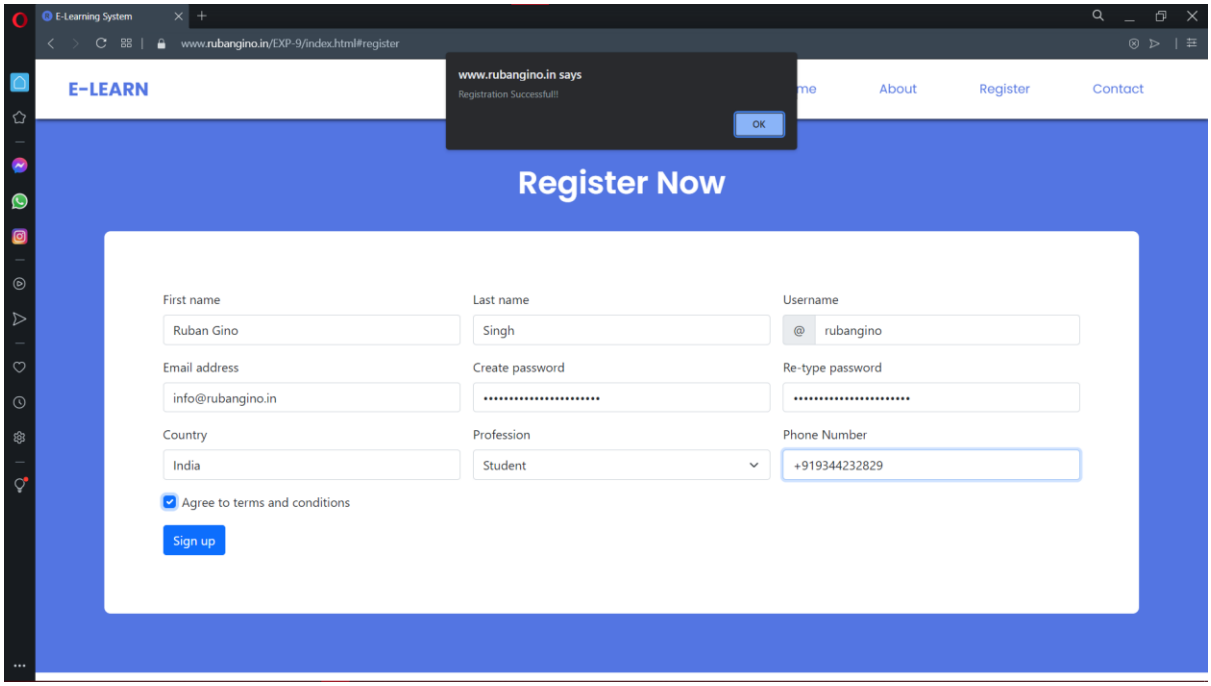


**Browser: Opera Browser**

```
Console ×
<terminated> opera [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe  (10-Oct-2021, 7:51:09 pm – 7:52:11 pm)
Starting OperaDriver 94.0.4606.61 (418b78f5838ed0b1c69bb4e51ea0252171854915-refs/branch-heads/4606@{#1204}) on port 48698
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping OperaDriver safe.
OperaDriver was started successfully.
Oct 10, 2021 7:51:11 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS

Web Testing Started Successfully!!

TEST CASES

Test Case 1: Verifying the URL
Desired URL: https://www.rubangino.in/EXP-9/index.html
Acutal URL: https://www.rubangino.in/EXP-9/index.html
Status: URL is Correct
Summary -> Test Case 1: Passed

Test Case 2: Verifying the Page TITLE
Actual TITLE: E-Learning System
Desired TITLE: E-Learning System
Status: Title is Correct
Summary -> Test Case 2: Passed

Test Case 3: Testing Register Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#register
Desired URL: https://www.rubangino.in/EXP-9/index.html#register
Summary -> Test Case 3: Failed

Test Case 4: Testing About Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#about
Desired URL: https://www.rubangino.in/EXP-9/index.html#about
About Button Working Successfull
Summary -> Test Case 4: Passed

Test Case 5: Testing Register Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#register
Desired URL: https://www.rubangino.in/EXP-9/index.html#register
Register Nav Button Working Successfull
```

Console ×

<terminated> opera [Java Application] C:\Program Files\Java\jdk-16.0.1\bin\javaw.exe (10-Oct-2021, 7:51:09 pm – 7:52:11 pm)

```
Test Case 6: Testing Contact Navigation Button
Actual URL: https://www.rubangino.in/EXP-9/index.html#contact
Desired URL: https://www.rubangino.in/EXP-9/index.html#contact
Register Nav Button Working Successfull
Summary -> Test Case 6: Passed

Test Case 7: Testing First Name
Input: Ruban Gino
Summary -> Test Case 7: Passed

Test Case 8: Testing Last Name
Input: Singh
Summary -> Test Case 8: Passed

Test Case 9: Testing User Name
Input: rubangino
Summary -> Test Case 9: Passed

Test Case 10: Testing Email Id
Input: info@rubangino.in
Summary -> Test Case 10: Passed

Test Case 11: Testing Create Password Input
Input: E-Learning@#$System!@#$
Summary -> Test Case 11: Failed

Test Case 12: Testing Re Type Password Input
Input: E-Learning@#$System!@#$
Summary -> Test Case 12: Failed

Test Case 13: Testing Country Input
Input: India
Summary -> Test Case 13: Passed

Test Case 14: Testing Drop Down
Input: Student
Summary -> Test Case 14: Passed
```

```
Test Case 14: Testing Drop Down
Input: Student
Summary -> Test Case 14: Passed

Test Case 15: Testing Phone Number
Input: +919344232829
Summary -> Test Case 15: Passed

Test Case 16: Testing Terms Check Box
Summary -> Test Case 16: Passed

Alert text is: Registration Successful!!

Alert Accepted!!

Web Testing Ended Successfully!
```

**RESULT:**

A web page was tested in the Chrome & Opera Browsers by creating various testcases

For the project E-Learning System using java and selenium framework.