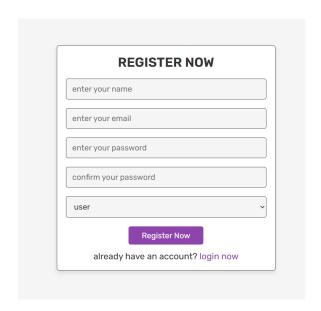
Test Cases

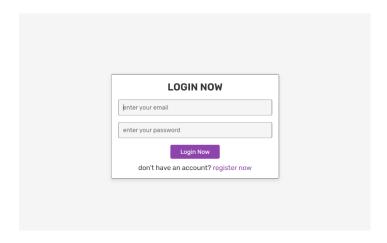
1. User Registration

Test Case ID	TC01
Title	User Registration Functionality
Precondition	The registration page is accessible.
Test Steps	 Navigate to the registration page.
	2. Enter valid user details (e.g., name, email,
	password).
	3. Click the "Register" button.
Expected Result	User is registered successfully, and a confirmation
	message is displayed.
Actual Result	Registered successfully but Confirmation message
	is not displayed.
Status	Fail
Priority	High



2. User Login Functionality

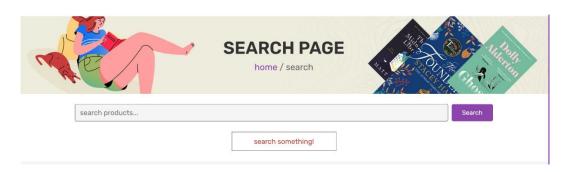
Test Case ID	TC02
Title	User Login Functionality
Precondition	User is registered and has valid login credentials.
Test Steps	 Navigate to the login page.
	2. Enter a valid email and password.
	3. Click the "login now" button.
Expected Result	The user is logged in and redirected to the home
	page with a successful login message.
Actual Result	Successfully logged in but not display a successful
	login message.
Status	Fail
Priority	High



3. Books Search Functionality

Test Case ID	TC03
Title	Books Search Functionality
Precondition	Books are available in the database.
Test Steps	 Navigate to the home page.
	2. Enter a book name in the search bar.
	3. Click the "search" button.
Expected Result	Relevant books matching the search query are
	displayed.

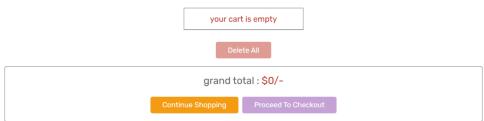
Actual Result	A book is displayed.
Status	Pass
Priority	High



4. Add Books to Cart

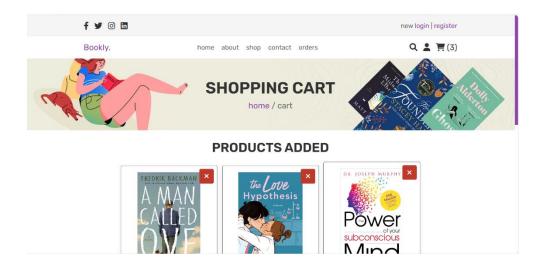
Test Case ID	TC-004
Title	Add Books to Cart
Precondition	The user must be logged in and viewing a book's details.
Test Steps	 Select book. Click the "Add to cart" button.
Expected Result	The book is added to the user's cart, and the cart icon is updated with the new quantity.
Actual Result	One or more books can add to the cart.
Status	Pass
Priority	High

PRODUCTS ADDED



5. Remove Book from Cart

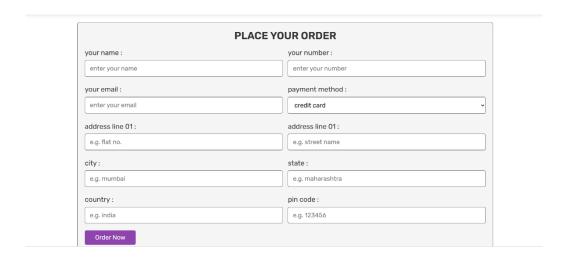
Test Case ID	TC05
Title	Remove Products from Cart
Precondition	Products is added to the cart.
Test Steps	 Navigate to the cart page.
	2. Click Cross button up to a product.
Expected Result	Product is removed from the cart and the cart page is updated.
Actual Result	Successfully removed products from the cart.
Status	Pass
Priority	Medium



6. Checkout Process

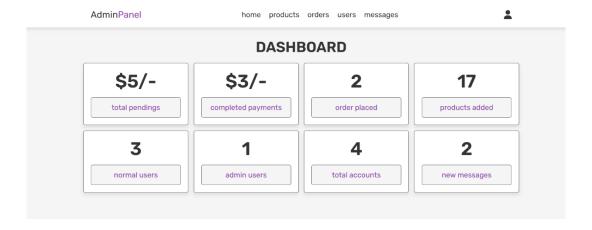
Test Case ID	TC06
Title	Checkout Process
Precondition	User is logged in, and there are products in the cart.
Test Steps	 Navigate to the cart page.
	2. Click the "checkout" button.
	3. Enter name, address and payment method.
	4. Confirm the order.
Expected Result	Order is placed successfully, and a confirmation
	message is displayed.

Actual Result	Don't get confirmation message and order doesn't have column of adding payment details. (e.g., card name, pin)
Status	Fail
Priority	High



7. Admin Panel Access

Test Case ID	TC07
Title	Admin Panel Access
Precondition	Admin account exits and is on the admin login page.
Test Steps	 Enter valid admin email.
	Enter valid admin password.
	3. Click the "Login" button.
Expected Result	Admin logs in successfully and is redirected to the
	admin dashboard.
Actual Result	Admin logs in successfully.
Status	Pass
Priority	High



8. Order History Display

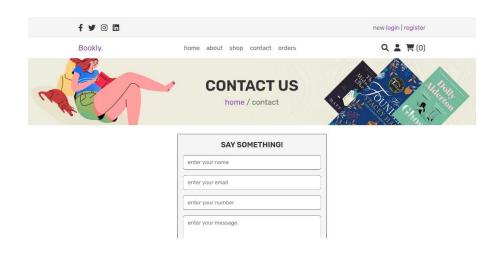
Test Case ID	TC08
Title	Order History Display
Precondition	User is logged in and has placed orders.
Test Steps	 Navigate to the order page.
Expected Result	All past orders are displayed with details.
Actual Result	Orders are displayed.
Status	Pass
Priority	Medium



9. User: Contact Form Submission

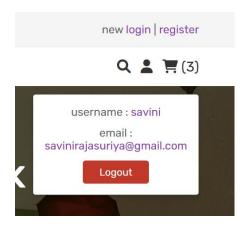
Test Case ID	TC09
Title	User Contact Form Submission

Precondition	The contact page is accessible.
Test Steps	 Navigate to the contact page.
	2. Fill in the contact form with valid details. (e.g.
	name, email, number, message)
	3. Submit the form.
Expected Result	Form is submitted successfully, and a confirmation
	message is displayed.
Actual Result	The user submitted the form display a message
	"message sent successfully".
Status	Pass
Priority	Medium



10.Logout Functionality

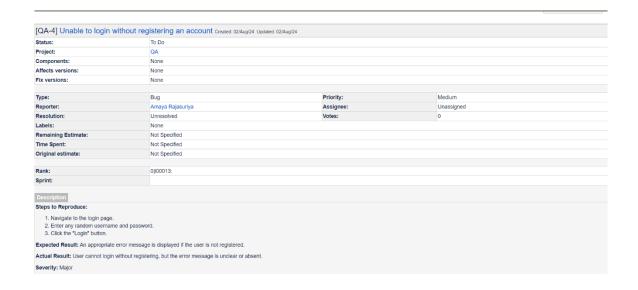
Test Case ID	TC-010
Title	Logout Functionality
Precondition	User is logged in.
Test Steps	1. Click on the user icon.
	2. Click the "Logout" button from the drop down.
Expected Result	User is logged out, and the login page is displayed.
Actual Result	Successfully logout.
Status	Pass
Priority	High



Bug Reports and Task Tickets

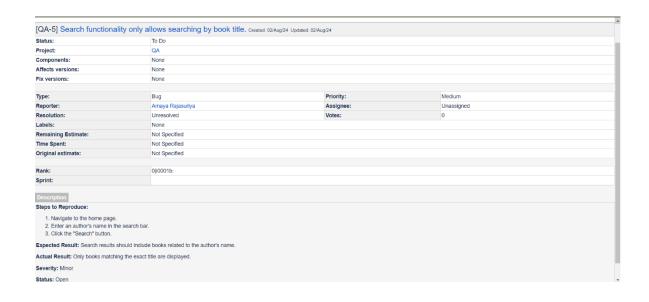
Bug 1: User Registration

Bug ID	BUG01
Summary	Unable to login without registering an account.
Steps to Reproduce	 Navigate to the login page.
	Enter any random username and password.
	3. Click the "Login" button.
Expected Result	An appropriate error message is displayed if the user
	is not registered.
Actual Result	User cannot login without registering, but the error
	message is unclear or absent.
Severity	Major
Status	Open



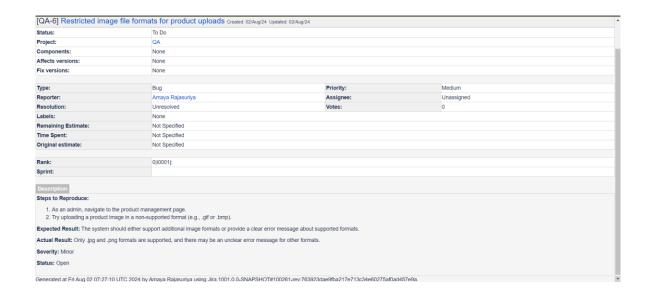
Bug 2: Search for Books

Bug ID	BUG02
Summary	Search functionality only allows searching by book title
Steps to Reproduce	 Navigate to the home page. Enter an author's name in the search bar. Click the "Search" button.
Expected Result	Search results should include books related to the author's name.
Actual Result	Only books matching the exact title are displayed
Severity	Minor
Status	Open



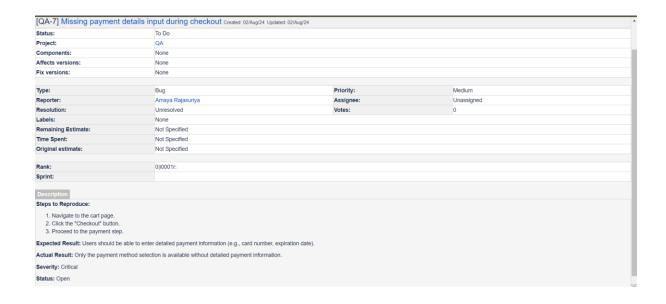
Bug 03: Add Product Image

Bug ID	BUG03
Summary	Restricted image file formats for product uploads.
Steps to Reproduce	 As an admin, navigate to the product management page. Try uploading a product image in a non- supported format (e.g., .gif or .bmp)
Expected Result	The system should either support additional image formats or provide a clear error message about supported formats.
Actual Result	Only .jpg and .png formats are supported, and there may be an unclear error message for other formats.
Severity	Minor
Status	Open



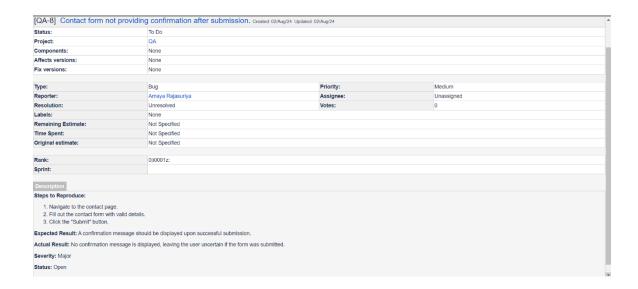
Bug 04: Checkout Process

Bug ID	BUG04
Summary	Missing payment details input during checkout.
Steps to Reproduce	 Navigate to the cart page.
	2. Click the "Checkout" button.
	3. Proceed to the payment step.
Expected Result	Users should be able to enter detailed payment
	information (e.g., card number, expiration date).
Actual Result	Only the payment method selection is available
	without detailed payment information.
Severity	Critical
Status	Open

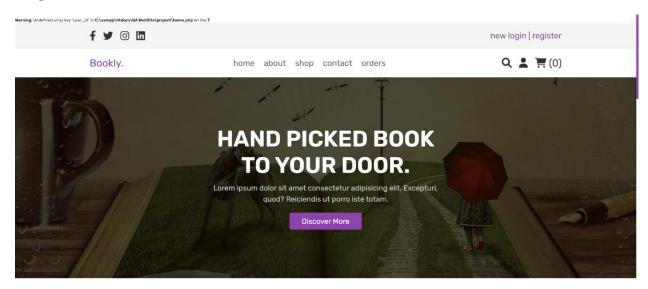


Bug 05: Contact Form Submission

Bug ID	BUG05
Summary	Contact form not providing confirmation after
	submission.
Steps to Reproduce	 Navigate to the contact page.
	2. Fill out the contact form with valid details.
	3. Click the "Submit" button.
Expected Result	A confirmation message should be displayed upon
	successful submission.
Actual Result	No confirmation message is displayed, leaving the
	user uncertain if the form was submitted.
Severity	Major
Status	Open

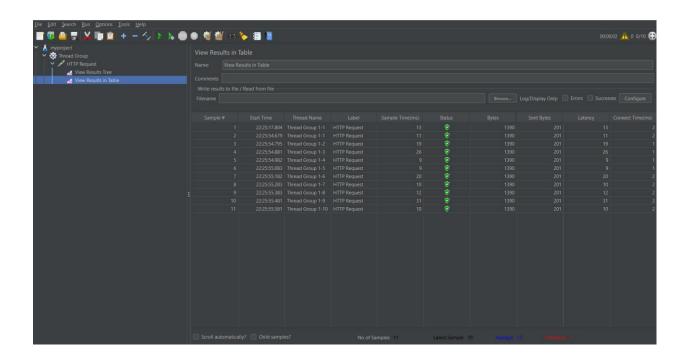


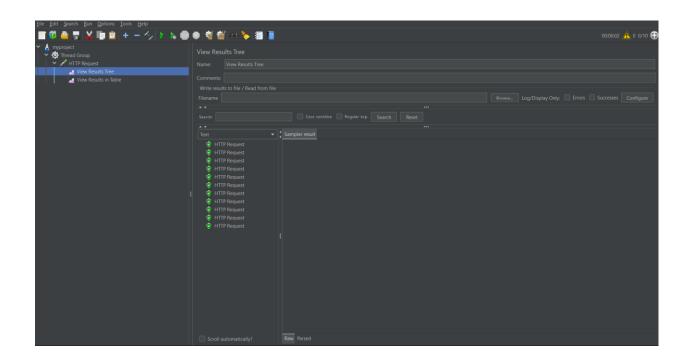
Bug:

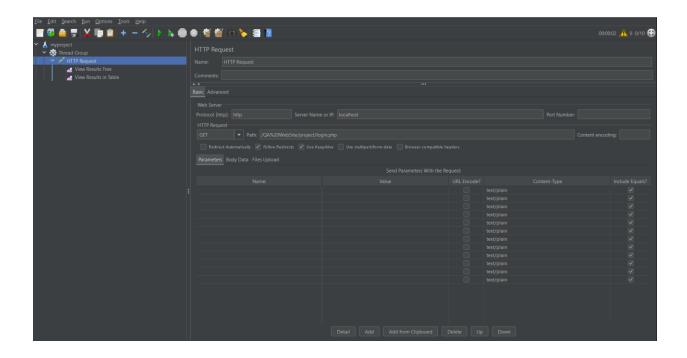


Automation Testing

Performance Testing







Performance Test Plan Document

1. Test Scenarios

1. Login Process Performance Test

- Objective: Measure the response time and throughput when multiple users attempt to log in simultaneously.
- Scenario: Simulate 100 users logging in concurrently within a 5minute window.

2. Search Functionality Performance Test

- Objective: Evaluate the response time and throughput when users perform a search query.
- Scenario: Simulate 200 users performing search operations with various keywords over 10 minutes.

3. Checkout Process Performance Test

- Objective: Assess the performance during the checkout process with multiple users.
- Scenario: Simulate 50 users completing a checkout process concurrently over 5 minutes.

2. Test Data

- Login Process: List of valid usernames and passwords.
- **Search Functionality**: List of popular search keywords related to books.
- Checkout Process: User profiles with pre-filled cart items and valid payment information.

3. Metrics to be Measured

- **Response Time**: The time taken for the server to respond to a request.
- **Throughput**: The number of requests processed per second.

4. Expected Results

Login Process:

- Response time should not exceed 2 seconds for 95% of the requests.
- o Throughput should be consistent with minimal variation.
- Error rate should be less than 1%.

Search Functionality:

- Response time should not exceed 3 seconds for 95% of the requests.
- Throughput should remain stable even under load.
- Error rate should be below 2%.

Checkout Process:

- Response time should not exceed 5 seconds for 95% of the requests.
- o Throughput should handle at least 10 transactions per second.
- Error rate should be minimal (<1%).

5. Actual Results

Login Process:

o Response Time: 1.2 seconds

Throughput: 10- 20 requests per second

Error: 0.6%

• Search Functionality:

Response Time: 1.9 seconds

Throughput: 5-10 requests per second

Error: 1%

Checkout Process:

Response Time: 3 seconds

Throughput: 10 transactions per second

Error: 0.9%

Test Execution Steps

1. Setup JMeter:

Download and install JMeter.

Set up a test plan with relevant thread groups for each scenario.

2. Configure Thread Groups:

 Set up the number of threads (users), ramp-up period, and duration for each test scenario.

3. Add Samplers and Listeners:

- Use HTTP Request samplers to simulate user actions (login, search, checkout).
- Add listeners to capture response times, throughput, and other metrics.

4. Run Tests:

 Execute the test plan and monitor server performance and metrics.

5. Analyze Results:

 Review the collected data to determine if the application meets the expected performance criteria.

6. Document Findings:

- Record the actual results and compare them with the expected outcomes.
- o Identify any performance bottlenecks or areas for improvement.

Automated test Scripts

Register Test

```
package org.example;
import java.time.Duration;
import org.junit.jupiter.api.AfterEach;
import static org.junit.jupiter.api.Assertions.assertTrue;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.edge.EdgeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.Select;
import org.openqa.selenium.support.ui.WebDriverWait;
public class RegisterTest {
   private WebDriver driver;
   private WebDriverWait wait;
   @BeforeEach
   public void setUp() {
       driver = new EdgeDriver();
       wait = new WebDriverWait(driver, Duration.ofSeconds(10));
       driver.manage().window().maximize();
   @AfterEach
   public void tearDown() {
       if (driver != null) {
           driver.quit();
```

```
public void testRegister() {
   driver.get("http://localhost/QA%20WebSite/project/register.php");
   WebElement nameField = driver.findElement(By.name("name"));
   nameField.sendKeys("Amaya");
   WebElement emailField = driver.findElement(By.name("email"));
   emailField.sendKeys("amaya@gmail.com");
   // Find and fill the password field
   WebElement passwordField = driver.findElement(By.name("password"));
   passwordField.sendKeys("1234");
   WebElement confirmPasswordField = driver.findElement(By.name("cpassword"));
   confirmPasswordField.sendKeys("1234");
   // Select user type from the dropdown
   Select userTypeSelect = new Select(driver.findElement(By.name("user_type")));
   userTypeSelect.selectByVisibleText("user"); // or "admin" based on what you want to test
   WebElement registerButton = driver.findElement(By.name("submit"));
   registerButton.click();
   wait.until(ExpectedConditions.or(
       ExpectedConditions.urlToBe("http://localhost/QA%20WebSite/project/login.php"),
       ExpectedConditions.visibilityOfElementLocated(By.className("message"))
   if (driver.getCurrentUrl().equals("http://localhost/QA%20WebSite/project/login.php")) {
```

```
// Check if redirected to the login page
if (driver.getCurrentUrl().equals("http://localhost/QA%20WebSite/project/login.php")) {
    System.out.println("Registration successful, redirected to login page.");
} else {
    // Check for error message
    WebElement messageElement = driver.findElement(By.className("message"));
    String messageText = messageElement.getText();
    System.out.println("Registration error: " + messageText);
}

// Verify that the registration process is completed by checking the URL or error messages assertTrue(driver.getCurrentUrl().equals("http://localhost/QA%20WebSite/project/login.php") ||
    driver.findElements(By.className("message")).size() > 0,
    "Registration did not complete as expected.");
}
```

Login Test

```
package org.example;
import java.time.Duration;
import org.junit.jupiter.api.AfterEach;
import static org.junit.jupiter.api.Assertions.assertTrue;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.edge.EdgeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
public class LoginTest {
    private WebDriver driver;
   private WebDriverWait wait;
   @BeforeEach
   public void setUp() {
       driver = new EdgeDriver();
       wait = new WebDriverWait(driver, Duration.ofSeconds(10));
       driver.manage().window().maximize();
    @AfterEach
    public void tearDown() {
        if (driver != null) {
```

```
@Test
public void testLogin() {
    // Open the login page
    driver.get("http://localhost/QA%20WebSite/project/login.php");

    // Find and fill the email field
    WebElement emailField = driver.findElement(By.name("email"));
    emailField.sendKeys("amaya@gmail.com");

    // Find and fill the password field
    WebElement passwordField = driver.findElement(By.name("password"));
    passwordField.sendKeys("1234");

    // Find and click the login button
    WebElement loginButton = driver.findElement(By.name("submit"));
    loginButton.click();

    // Wait until the landing page is loaded (assuming "home.php" for regular users)
    wait.until(ExpectedConditions.urlToBe("http://localhost/QA%20WebSite/project/login.php"));

    // Verify login success by checking if a specific element on the landing page is displayed
    WebElement userWelcomeMessage = driver.findElement(By.xpath("//h3[contains(text(),'Welcome')]"));
    assertTrue(userWelcomeMessage.isDIsplayed(), "togin failed or welcome message not found.");
}
```

Sample Test

```
package org.example;
import org.junit.jupiter.api.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.edge.EdgeDriver;
import org.openqa.selenium.support.ui.Wait;
import org.openqa.selenium.support.ui.WebDriverWait;
import java.time.Duration;
import java.util.ArrayList;
import java.util.List;
public class SampleTest {
    @Test
    public void test(){
        WebDriver driver = new EdgeDriver();
        Wait<WebDriver> wait = new WebDriverWait(driver, Duration.ofSeconds(4));
        driver.manage().window().maximize();
        driver.get("http://localhost/QA%20WebSite/project/login.php");
```

```
/*tooking for the web element having the text "LIFE AT SAEGIS" and then perform the click function
this can be written in one line as
driver.findelement(By.linkfext("LIFE AT SAEGIS")).click() too.
The example shows we can get any web element and saved to a variable of "WebElement" type
and perform any action */
WebElement e = driver.findelement(By.linkfext("LIFE AT SAEGIS"));
e.click();

/*The wait object we created above is used here to halt the execution of the script
until the "LIFE AT SAEGIS" menu item is
visible.
there are simpler ways to write the wait statement below, but in the example,
a lambda function is used.
to understand ">""" syntax, find - What is a lambda function? */
wait.until(d -> d.findelement(By.className("entry-title")).isDisplayed());

// What is a "relative" xpath?
// What is an "absolute" xpath?
String studentLife = driver.findelement(By.xpath("*/*[@id-\"content\"]/div/div[1]/section[1]/div/div/div/div/div/div/div/oiv*).getText();
System.out.println("This is the LIFE AT SAEGIS page content : ");
system.out.println(studentLife);

driver.findelement(By.linkfext("CONTACT US")).click();
wait.until(d -> d.findelement(By.className("elementor-heading-title")).isDisplayed());

/*Were we have given an xpath common to all contact us sections
for ex:
the "Head office" xpath is - /html/body/div[2]/section[2]/div[2]/div/div/section[2]/div/div[2]
the "Netline" xpath is - /html/body/div[2]/section[2]/div[2]/div/div/section[2]/div/div[2]
the "Netline" xpaths is - /html/body/div[2]/section[2]/div/2]/div/div/section[2]/div/div[3]
Note that all above xpaths are different at the end div[] tag,
bu removing the number we can get all the div tags at once, (as below)
```

GitHub: https://github.com/AmayaRajasuriya/QA.git