

**Website:** <http://testasp.vulnweb.com>

**Endpoint:** Search.asp

### Summary

The search field on the page Search.asp is vulnerable to a reflected Cross-Site Scripting (XSS) attack. This vulnerability occurs because user input is not properly sanitized before being displayed on the page, allowing for the injection of malicious JavaScript.

### Vulnerability Details

- **Type:** Reflected XSS
- **Affected Parameter:** search (or relevant query parameter, if different)

### Steps to Reproduce

1. **Craft a JavaScript Payload:** Prepare a malicious JavaScript payload. For demonstration purposes, the payload will be:

```
<script>prompt() </script>
```

2. **Create a Malicious Request:** Use the following crafted URL to inject the payload into the search parameter:

<http://testasp.vulnweb.com/Search.asp?tfSearch=%3Cscript%3Eprompt%28%29%3C%2Fscript%3E>

3. **Execute the Request:** Send the crafted link to a victim or open it in a browser. The JavaScript alert will execute, displaying the user's cookies.

### Injection Demonstration

- **Crafted URL Example:**

Copy code

<http://testasp.vulnweb.com/Search.asp?tfSearch=%3Cscript%3Eprompt%28%29%3C%2Fscript%3E>

### Impact

With user interaction, an attacker could execute arbitrary JavaScript code in a victim's browser, potentially allowing:

- Access to sensitive information such as cookies or session tokens.
- Unauthorized actions on behalf of the user.
- Impersonation of the user within the application.

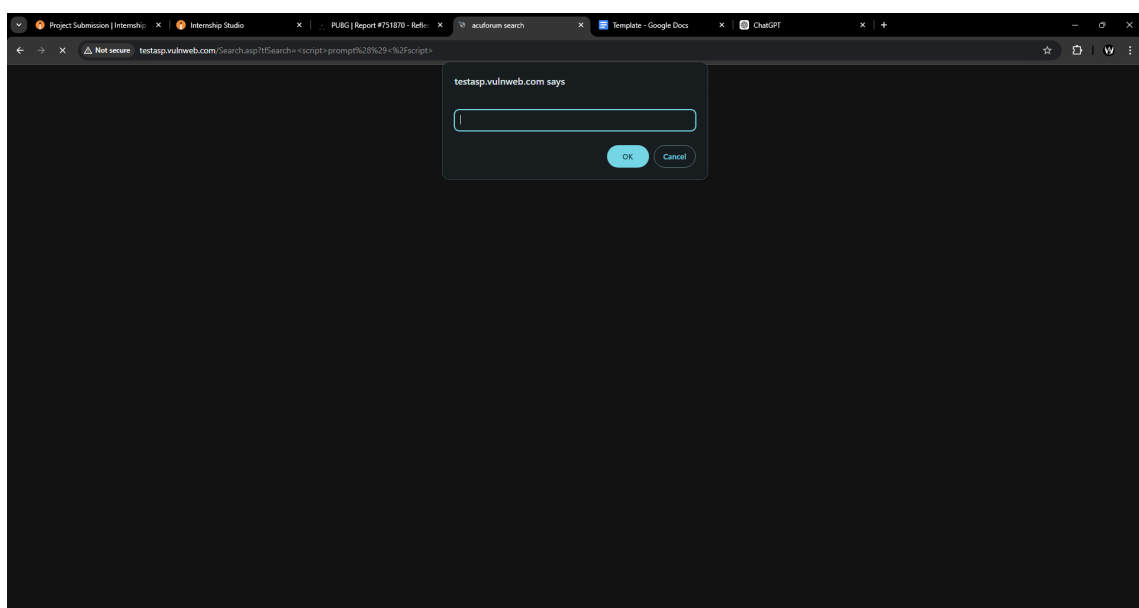
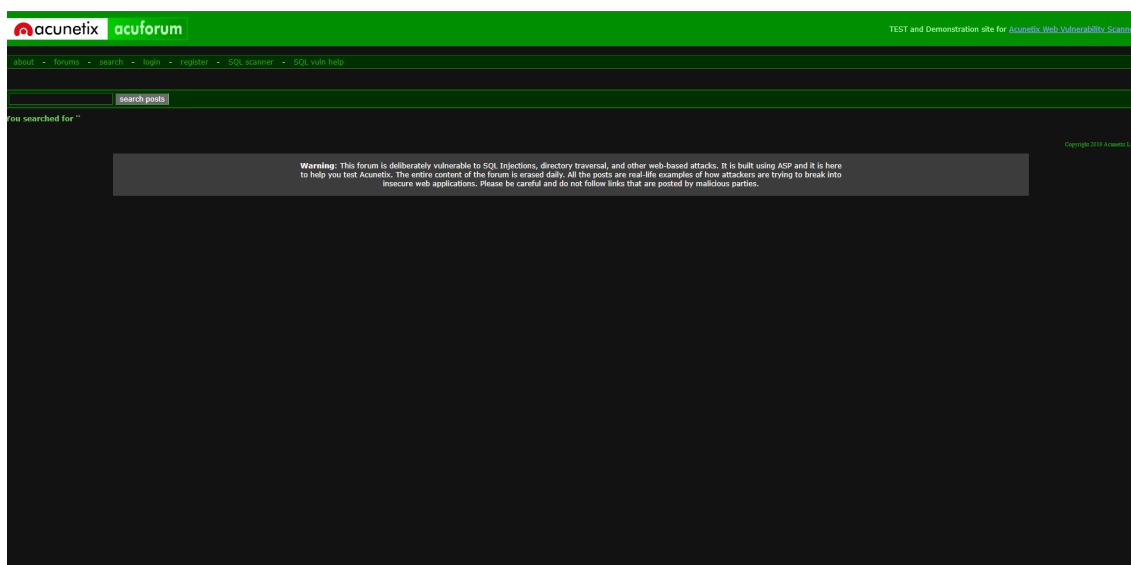
### Supporting Material/References

- **Video Demonstration:** [Link to Video, if available]

- **Screenshots:** [Include any relevant screenshots here]

## Mitigation Recommendations

1. **Input Validation:** Implement strict validation of all user inputs, especially in query parameters.
2. **Output Encoding:** Use context-aware output encoding methods to escape potentially dangerous characters.
3. **Content Security Policy (CSP):** Consider implementing CSP to mitigate the impact of XSS vulnerabilities.



**Website:** <http://testasp.vulnweb.com>

**Endpoint:** Login.asp

### Summary

The login page located at

<http://testasp.vulnweb.com/Login.asp?RetURL=%2FTemplatize%2Easp%3Fitem%3Dhtml%2Fabout%2Ehtml>

is vulnerable to a SQL Injection (SQLi) attack. An attacker can bypass the authentication mechanism and gain unauthorized access by injecting malicious SQL code into the username field.

### Vulnerability Details

- **Type:** SQL Injection
- **Affected Parameter:** Username (or "user")
- **SQL Injection Technique Used:** '-- (commenting out the remainder of the SQL query)
- **Payload Used:**
  - **Username:** admin'--
  - **Password:** admin

### Steps to Reproduce

1. **Navigate to the Login Page:** Go to the following URL:  
<http://testasp.vulnweb.com/Login.asp?RetURL=%2FTemplatize%2Easp%3Fitem%3Dhtml%2Fabout%2Ehtml>
2. **Enter the Payload:**
  - **Username:** admin'--
  - **Password:** admin

The -- sequence comments out the rest of the SQL query, allowing an attacker to bypass authentication.

3. **Login Successfully:** After submitting the form with this payload, the login will be bypassed, and the attacker will be authenticated as an administrator (or another valid user).

### Injection Demonstration

- **Payload Example:**

Username: admin'--

Password: admin

- **SQL Query After Injection:**  
The login query would look something like this:

```
SELECT * FROM users WHERE username = 'admin'--' AND password = 'admin';
```

The -- comments out the rest of the query, effectively ignoring the password check and logging the user in as "admin."

## Impact

With this vulnerability, an attacker can:

- **Bypass Authentication:** Log in as any user, including administrators, by injecting the appropriate SQL commands.
- **Access Sensitive Data:** Once logged in, an attacker could access sensitive user data, modify information, or perform other administrative actions.
- **Potential Data Compromise:** If the vulnerability extends to other parts of the site, it could be used to extract or manipulate sensitive information in the database.

## Supporting Material/References

- **Screenshots:** [Include any screenshots that demonstrate the successful login]
- **Video Demonstration:** [Link to video if applicable]

## Mitigation Recommendations

1. **Use Parameterized Queries:** All database queries should use prepared statements or parameterized queries to prevent SQL injection attacks.
2. **Input Validation:** Implement strict input validation and sanitization for all user inputs.
3. **Use Least Privilege Principle:** Ensure that database connections use the least privilege necessary to operate, reducing the impact of a successful SQL injection.
4. **Error Handling:** Avoid displaying detailed error messages to users, as these can give attackers clues about the database structure.

