

Working With Databases

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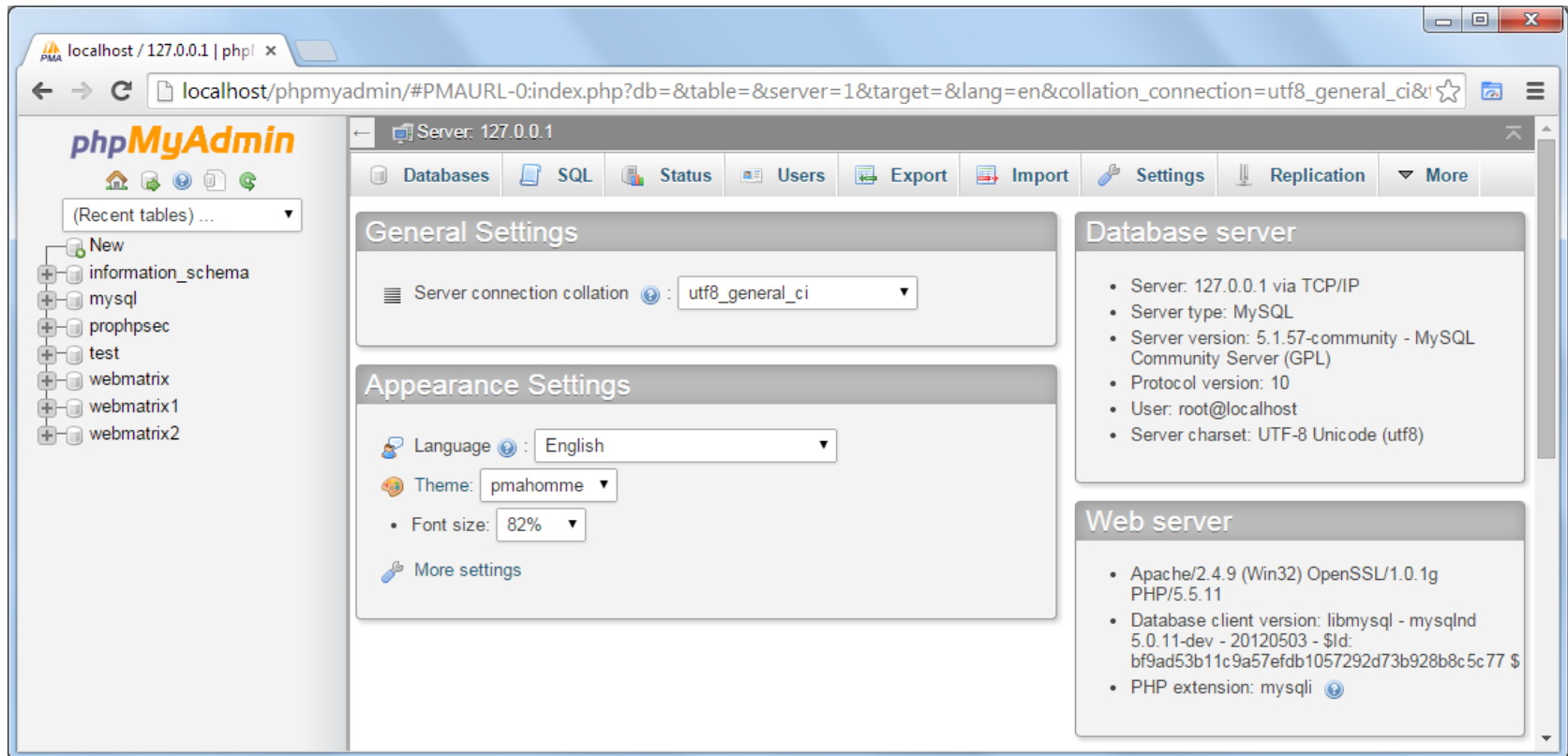
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hardcore dev and IT training

Agenda

- Database Setup With phpMyAdmin
- Inserting Data
- Reading Data
- Updating Data
- Deleting Data

Database Setup

- phpMyAdmin (<http://www.phpmyadmin.net/>)



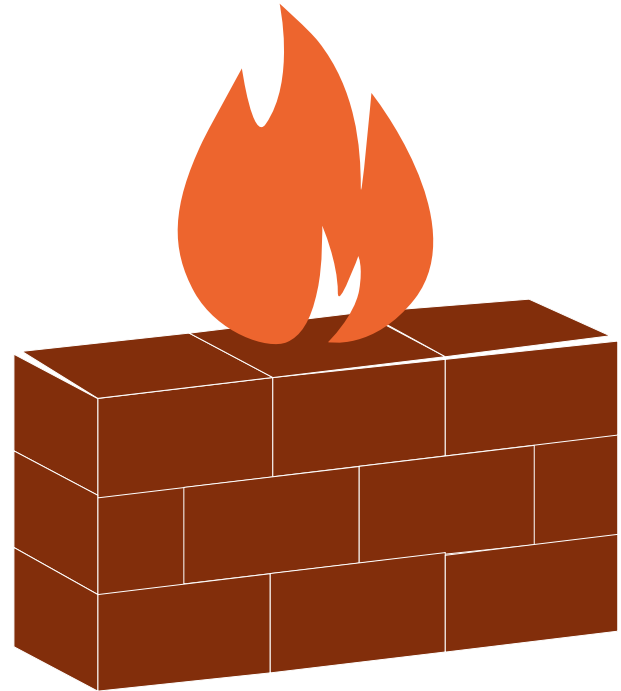
Disclaimer

There is more than one way ...

Very limited error
handling/detection

Database uses insecure default
settings

It ain't pretty :-)



Database Connection

```
$db = mysqli_connect(  
    "localhost",  
    "username",  
    "password",  
    "database");  
  
// ...  
  
mysqli_close($db);
```

Inserting Data

```
mysqli_query(  
    $db,  
    "INSERT INTO table (col1, col2)  
    VALUES ('value1', 'value2')");
```

Avoiding SQL Injection

```
$sql = sprintf(  
    "INSERT INTO table (col1, col2)  
    VALUES ('%s', '%s')",  
    mysqli_real_escape_string($db, 'value1'),  
    mysqli_real_escape_string($db, 'value2'));  
mysqli_query($db, $sql);
```

Reading Data

```
$result = mysqli_query(  
    $db, "SELECT * FROM table");  
  
foreach ($result as $row) {  
    $value1 = $row["col1"];  
    $value2 = $row["col2"];  
}
```


Updating Data

```
$sql = sprintf(  
    "UPDATE table SET col1='%s', col2='%s'  
    WHERE col3='%s'",  
    mysqli_real_escape_string($db, 'value1'),  
    mysqli_real_escape_string($db, 'value2'),  
    mysqli_real_escape_string($db, 'value3'));  
mysqli_query($db, $sql);
```

Deleting Data

```
$sql = sprintf(  
    "DELETE FROM table WHERE col1='%s'",  
    mysqli_real_escape_string($db, 'value1'));  
mysqli_query($db, $sql);
```

Summary

- Use phpMyAdmin for web-based MySQL administration
- PHP provides `mysqli_*`() functions to communicate with MySQL
- Avoid SQL Injection by escaping user input before putting it in SQL
- We did not cover the OOP interface (which has the same feature set)