

Dynamic websites – Database - Select



Dynamic site

Database connection

Requirement:

All employees are to be queried from the user_repository database and displayed in tabular form on the website

Current

status: • Database connection available • No database table available • No query available • No table available for output

Solution: •


Create database table via SQL query in phpMyAdmin • Create query • Use PHP function for query • Use HTML table and generate values dynamically



Task

database structure

Build the table as shown in the image below. Use a self-written SQL statement for this.

#	Name	Typ	Kollation	Attribute	Null	Standard	Kommentare	Extra
1	ID 	int(11)			Nein	kein(e)		AUTO_INCREMENT
2	FORENAME	varchar(255)	utf8_general_ci		Nein	kein(e)		
3	SURENAME	varchar(255)	utf8_general_ci		Nein	kein(e)		
4	AGE	int(11)			Nein	kein(e)		
5	POSITION	varchar(255)	utf8_general_ci		Nein	kein(e)		
6	ACTIVE	tinyint(1)			Nein	kein(e)		
7	ROLE_ID	int(11)			Nein	kein(e)		



Dynamic site

Introducing: ~~Select~~ - PHP Database

1. Define query and save in variable
2. The connection object(\$conn) provides a method to send the query to the database ->**query()**
3. Store the result of the query in a variable
4. Check the number of results (at least 1)
5. Use method ->**fetch_assoc()** to add columns
Store results in an associative array
6. Use loop to process all row results
7. Process results



```
<?php

$query = "SELECT * FROM EMPLOYEE e";

$result = $conn->query($query);

if($result->num_rows > 0){
    while($row = $result->fetch_assoc()){
        echo "id : ".$row['ID'];
        echo "<br>";
        echo "Vorname : ".$row['FORENAME'];
        echo "<br>";
    }
}
?>
```



Dynamic site

Select – PHP Database - With table output



```
<table>
  <tr>
    <th>ID</th>
    <th>Vorname</th>
    <th>Nachname</th>
    <th>Alter</th>
    <th>Position</th>
    <th>Aktiv</th>
    <th>Role_ID</th>
  </tr>
```

```
<?php

$query = "SELECT * FROM EMPLOYEE e";

$result = $conn->query($query);

if($result->num_rows > 0){
    while($row = $result->fetch_assoc()){
        echo "<tr>";
        echo "<td>".$row['ID']. "</td>";
        echo "<td>".$row['FORENAME']. "</td>";
        echo "<td>".$row['SURENAME']. "</td>";
        echo "<td>".$row['AGE']. "</td>";
        echo "<td>".$row['POSITION']. "</td>";
        echo "<td>".$row['ACTIVE']. "</td>";
        echo "<td>".$row['ROLE_ID']. "</td>";
        echo "</tr>";
    }
}
```

```
?>
</table>
```



Dynamic site

Select – PHP database

Other methods for result assignment:

Indexed Array:

```
$result = $conn->fetch_row();
```

Object:

```
$result = $conn->fetch_object();
```



Dynamic websites – Database – Insert/Update/Delete



Dynamic site

Database connection

Requirement:

A form should be made available with which new employees can be created/
edited and deleted

Current

status: • Database connection
available • No form available

Solution

approach: • Create SQL
statement • Use PHP functions for SQL statements



Dynamic site

Introducing: ~~Insert~~ – PHP

Database

1. Create HTML form
2. Enter data record: Compose SQL statement
3. method query(); to use
4. Check whether the statement was executed successfully

(detail)

```
$query = "INSERT INTO EMPLOYEE(forename, surname, age,  
  
    if ($conn->query($query) === TRUE) {  
        echo "<h4>Mitarbeiter erfolgreich angelegt</h4>";  
    } else {  
        echo "Error: " . $query . "<br>" . $conn->error;  
    }  
}
```



Dynamic site

Introducing: Update – PHP Database

1. Create HTML form
2. Edit record: Compose SQL statement
3. method query(); to use
4. Check whether the statement was executed successfully

(detail)

```
$query = "UPDATE EMPLOYEE set forename = '". $forename . "'",  
if ($conn->query($query) === TRUE) {  
    echo "<h4>Mitarbeiter erfolgreich aktualisiert</h4>";  
} else {  
    echo "Error: " . $query . "<br>" . $conn->error;  
}
```



Dynamic site

Introducing: ~~Delete~~ – PHP Database

1. Create HTML form
2. Delete record: Compose SQL statement
3. method query(); to use
4. Check whether the statement was executed successfully

(detail)

```
$query = "DELETE FROM EMPLOYEE WHERE ID = ('".$employee."')";  
  
if ($conn->query($query) === TRUE) {  
    echo "<h4>Mitarbeiter erfolgreich entfernt</h4>";  
} else {  
    echo "Error: " . $query . "<br>" . $conn->error;  
}
```



finish

Dynamic websites

PHP VI





<https://www.w3schools.com/php/default.asp>

<https://www.php.net/manual/de/langref.php>

PHP

<https://www.w3schools.com/tags/default.asp>

HTML

<https://www.w3schools.com/cssref/default.asp>

CSS

