PHP MySQL: Create A New Table

Summary: in this lab, you will learn how to use PHP to create a MySQL database table by using the PDO API.

The following are the steps to show you how to create a new table in a database:

- Open a database connection to the MySQL database server.
- Execute the CREATE TABLE statement to create new tables.

PHP MySQL: Create table example

We will create a new table named tasks in the classicmodels database with the following SQL script:

```
CREATE TABLE IF NOT EXISTS tasks (
    task_id     INT AUTO_INCREMENT PRIMARY KEY,
    subject     VARCHAR (255)        DEFAULT NULL,
    start_date  DATE                 DEFAULT NULL,
    end_date    DATE                 DEFAULT NULL,
    description VARCHAR (400)        DEFAULT NULL
);
```

First, we create a class named CreateTableDemo that has DB configuration parameters. In the constructor of the CreateTableDemo class, we open a connection to the sample database by instantiating a new PDO object.

```php
<?php

/**
 * PHP MySQL Create Table Demo
 */
class CreateTableDemo {

    /**
     * database host
     */
    const DB_HOST = 'localhost';

    /**
     * database name
     */
    const DB_NAME = 'classicmodels';

    /**
     * database user
     */
    const DB_USER = 'root';
    /*
     * database password
     */
    const DB_PASSWORD = '';

    /**
     *
     * @var type
     */
    private $pdo = null;

    /**
     * Open the database connection
     */
    public function __construct() {
        // open database connection
        $conStr = sprintf("mysql:host=%s;dbname=%s", self::DB_HOST, self::DB_NAME);
        try {
            $this->pdo = new PDO($conStr, self::DB_USER, self::DB_PASSWORD);
        } catch (PDOException $e) {
            echo $e->getMessage();
        }
    }

    //...
}
```

Next, in the destructor of the CreateTabledemo class, we close the database connection by assigning it the null value.

```php
    /**
     * close the database connection
     */
    public function __destruct() {
        // close the database connection
        $this->pdo = null;
    }
```

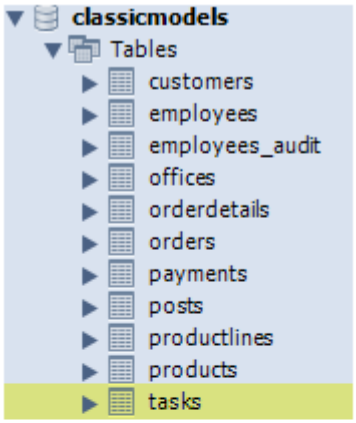
Then, define the createTaskTable() method to create the tasks table:

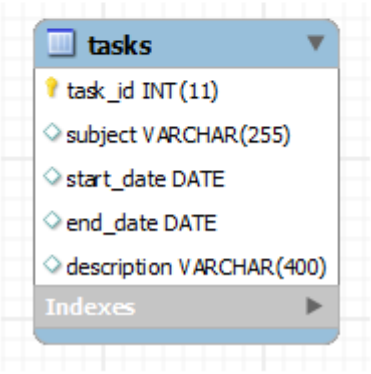
```php
    /**
     * create the tasks table
     * @return boolean returns true on success or false on failure
     */
    public function createTaskTable() {
        $sql = <<<EOSQL
            CREATE TABLE IF NOT EXISTS tasks (
                task_id     INT AUTO_INCREMENT PRIMARY KEY,
                subject     VARCHAR (255)        DEFAULT NULL,
                start_date  DATE                 DEFAULT NULL,
                end_date    DATE                 DEFAULT NULL,
                description VARCHAR (400)        DEFAULT NULL
            );
EOSQL;
        return $this->pdo->exec($sql);
    }
```

To execute an SQL statement, you call the exec() method of the PDO object. After that, you can create an instance of the CreateTableDemo class and call the createTaskTable() method.

```php
// create the tasks table
$obj = new CreateTableDemo();
$obj->createTaskTable();
```

Finally, you can check the classicmodels sample database to see if the tasks table has been created.


classicmodels
Tables
customers
employees
employees_audit
offices
orderdetails
orders
payments
posts
productlines
products
tasks


tasks
task_id INT(11)
subject VARCHAR(255)
start_date DATE
end_date DATE
description VARCHAR(400)
Indexes