

# Objektorientierung mit Models

== Erläuterung ==

Der Code ist zur Hilfenahme entstanden, als die Frage geklärt werden sollte ob man die Validierung im Controller oder im Model praktizieren sollte: [Überprüfung von Werten in \\$\\_POST Feldern](#). Mehr Informationen zum Basismodel sollen noch folgen. Jeder ist aber angehalten den Artikel zu verbessern.

Das hier erläuterte Verfahren nutzt object-relational mapping bzw Objektrelationale Abbildung - kurz ORM.

== Basismodel ==

## Quellcode

```
1. abstract class Model {
2.     protected $primaryKey = 'id';
3.     protected $data = array();
4.     abstract public function getColumns();
5.     function __construct($data = array()) {
6.         $this->data = $data;
7.     }
8.     public static function findById($id, $className) {
9.         $sql = "SELECT *
10.        FROM ".$this->getTablename().
11.        " WHERE ".$this->primaryKey." = :id ";
12.         $stmt = MyDB::getInstance()->prepare($sql);
13.         $stmt->execute(array(
14.             ':id' => $id
15.        ));
16.         return new $className($stmt->fetch());
17.     }
18.     protected function _findById() {
19.     }
20.     public function __set($name, $value) {
21.         $this->data[$name] = $value;
22.     }
23.     public function __get($name) {
24.         return $this->data[$name];
25.     }
26.     /**
27.      * empty() on a __get function will not work as expected if isset has not been overridden
28.      */
29.     public function __isset($key) {
30.         if (isset($this->data[$key])) {
31.             return (false === empty($this->data[$key]));
32.         } else {
33.             return null;
34.         }
35.     }
36.     public function validate() {
37.     }
38.     public function getTablename() {
39.         return get_class($this);
40.     }
41.     public function delete() {
42.         $primaryval = $this->{$this->primaryKey};
43.         $sql = 'DELETE FROM '.$this->getTablename().' WHERE '.$this->primaryKey.' = :primaryval';
44.         $stmt = MyDB::getInstance()->prepare($sql);
45.         $stmt->execute(array(
```

```

58. ':primaryval' => $primaryval
59. ));
60. }
61. public function save($override = null) {
62. if($override !== null) {
63. $this->data = array_merge($this->data, $override);
64. }
65. $this->validate();
66. $params = array();
67. $primaryval = $this->{$this->primarykey};
68. // insert or update
69. if($primaryval === null) {
70. $sql = 'INSERT INTO '.$this->getTablename().' ('.implode(', ', $this->getColumns()).') VALUES (';
71. foreach($this->getColumns() as $key) {
72. $sql .= ':'.$key.',';
73. $params[':'.$key] = $this->$key;
74. }
75. $sql = rtrim($sql, ',');
76. if(count($params)) {
77. $stmt = MyDB::getInstance()->prepare($sql);
78. $stmt->execute($params);
79. // remember auto increment key
80. $this->{$this->primarykey} = MyDB::getInstance()->lastInsertId();
81. }
82. } else {
83. $sql = 'UPDATE '.$this->getTablename().' SET ';
84. foreach($this->getColumns() as $key) {
85. $sql .= $key.' = '.$key.',';
86. $params[':'.$key] = $this->$key;
87. }
88. $sql = rtrim($sql, ','). ' WHERE '.$this->primarykey.' = :primaryval';
89. if(count($params)) {
90. $params[':primaryval'] = $primaryval;
91. $stmt = MyDB::getInstance()->prepare($sql);
92. $stmt->execute($params);
93. }
94. }
95. }
96. }
97. }
98. }
99. }
100. }

```

Alles anzeigen

== Beispielimplementierung eines Benutzers ==

### Quellcode

```

1. class User extends Model {
2. public function getTablename() {
3. return get_class($this); // user
4. }
5. public function getColumns() {
6. return array('email', 'password');
7. }
8. public function validate() {
9. if(...) {
10. throw new ValidateException('message');
11. }
12. }
13. }

```

14. }

Alles anzeigen

== Beispiele ==

==== Neuen Benutzer anlegen ====

### Quellcode

```
1. <form method="post">
2. email: <input type="text" name="email" /><br/>
3. password: <input type="password" name="password" /><br/>
4. <input type="submit">
5. </form>
6. <?php
7. if(count($_POST)) {
8. $user = new User($_POST);
9. $user->save();
10. }
11. ?>
```

Alles anzeigen

==== Benutzer bearbeiten ====

### Quellcode

```
1. <form method="post" action="edit.php?userid=123">
2. email: <input type="text" name="email" /><br/>
3. password: <input type="password" name="password" /><br/>
4. <input type="submit">
5. </form>
6. <?php
7. if(count($_POST) && isset($_GET['userid'])) {
8. $user = User::findById($_GET['userid']);
9. $user->save($_POST);
10. }
11. ?>
```

Alles anzeigen