

# CodeIgniter - Using Active Record for database interactions

Topics : [Codeigniter](#)

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Using Active Record in CodeIgniter provides a convenient and secure way to interact with databases by allowing you to build database queries using a fluent interface. Active Record abstracts away much of the SQL syntax and provides a more intuitive and readable way to perform database operations. Here's how you can use Active Record for database interactions in CodeIgniter:

## 1. Loading the Database Library:

- Before using Active Record, make sure the database library is loaded. If it's not autoloaded, you can load it in your controller or model.

```
$this->load->database();
```

## 2. Performing Database Queries with Active Record:

### Select Query:

```
$query = $this->db->get('users'); // SELECT * FROM users
foreach ($query->result() as $row) {
    echo $row->username;
}
```

You can also add conditions and filters:

```
$this->db->where('status', 'active');
$query = $this->db->get('users');
```

### Insert Query:

```
$data = array(
    'username' => 'john',
    'email' => 'john@example.com',
    'password' => 'password'
);
$this->db->insert('users', $data); // INSERT INTO users (username, email,
```

```
password) VALUES ('john', 'john@example.com', 'password')
```

### Update Query:

```
$data = array(
    'email' => 'newemail@example.com'
);
$this->db->where('id', 1);
$this->db->update('users', $data); // UPDATE users SET email =
'newemail@example.com' WHERE id = 1
```

### Delete Query:

```
$this->db->where('id', 1);
$this->db->delete('users'); // DELETE FROM users WHERE id = 1
```

## 3. Method Chaining:

- Active Record allows method chaining, making it easy to build complex queries in a readable manner.

```
$this->db->select('username, email');
$this->db->from('users');
$this->db->where('status', 'active');
$query = $this->db->get();
```

## 4. Escaping Queries:

- Active Record automatically escapes queries to prevent SQL injection attacks. You don't need to manually escape values.

```
$data = array(
    'username' => $this->db->escape($username),
    'email' => $this->db->escape($email)
);
$this->db->insert('users', $data);
```

## 5. Executing Raw SQL Queries:

- While Active Record is preferred for most queries, you can also execute raw SQL queries if necessary.

```
$query = $this->db->query('SELECT * FROM users');
foreach ($query->result() as $row) {
    echo $row->username;
}
```

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