TEK-UP Private Higher School of Technology & Engineering

Labs
(Symfony)

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Lab 3

Template TWIG

- The goal of this workshop is to create a Template with Twig.

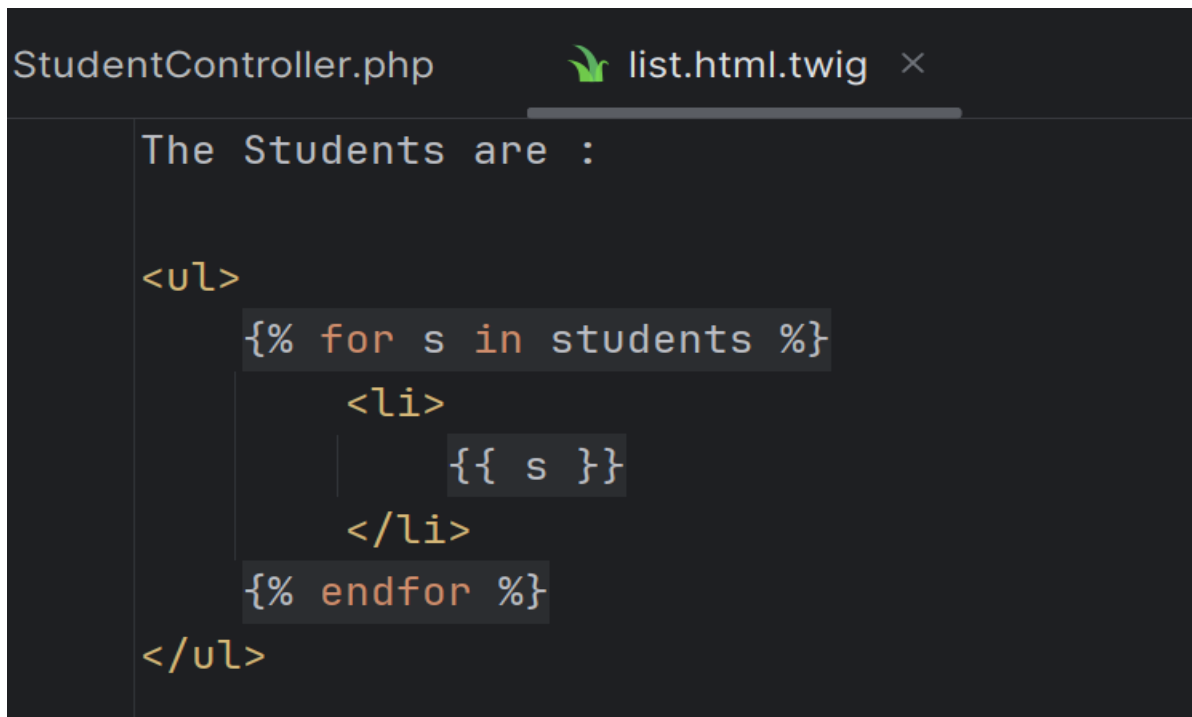- Manipulating variables, expressions, and links as well as including templates in the **view.html.twig**

I.2. Creating List Method and its Route

- Create a new method listStudent But this time, we're going to pass an array as a parameter to our view list.html.twig

```php
//Students List
no usages
#[Route('/student/list', name: 'student_list', priority: 2)]
public function listStudent(): Response
{
    $students = ["Ali", "Med", "Louay"];
    return $this->render( view: 'student/list.html.twig', ["students" => $students]);
}
```

- Create a new view list.html.twig under the directory Templates/student

```twig
The Students are :


<ul>
        {% for s in students %}
            <li>
                {{ s }}
            </li>
        {% endfor %}
</ul>
```

- Add a filter « upper » to variables and a condition in the case where the array passed as a parameter is empty

```
The Students are :

<ul>
    {% for s in students %}
        <li>
            {{ s | upper}}
        </li>
    {% else %}
        <strong>This list is empty</strong>
    {% endfor %}
</ul>
```

- In the same method, pass an associative array to our *list.html.twig* view from the **StudentController**

```php
public function listStudent(): Response
{
    $students = ["Ali", "Med", "Louay"];
    $courses = [
        ["id"=>1,
            "course"=>"Symfony",
                "Hours"=>42,
                    "teacher"=>"Ali"],
        ["id"=>2,
            "course"=>"Spring Boot",
            "Hours"=>42,
            "teacher"=>"Med"],
        ["id"=>3,
            "course"=>"UML",
            "Hours"=>42,
            "teacher"=>"Mayssa"]
    ];
    return $this->render( view: 'student/list.html.twig',
        ["students" => $students, "courses" => $courses]);
}
```

- View the courses list in the *list.html.twig*

```html
<h1>Here the list of courses :</h1>
<table border="2">
    <tr>
        <th>Id</th>
        <th>Course</th>
        <th>Hours</th>
        <th>Teacher</th>
    </tr>
    {% for c in courses %}
        <tr>
            <td>{{ c.id }}</td>
            <td>{{ c.course }}</td>
            <td>{{ c.Hours }}</td>
            <td>{{ c.teacher }}</td>
        </tr>
    {% endfor %}
</table>
```

- Add links to our view

```html
<h1>Here the list of courses :</h1>
<table border="2">
    <tr>
        <th>Id</th>
        <th>Course</th>
        <th>Hours</th>
        <th>Teacher</th>
        <th>Assignment</th>
    </tr>
{% for c in courses %}
        <tr>
            <td>{{ c.id }}</td>
            <td>{{ c.course }}</td>
            <td>{{ c.Hours }}</td>
            <td>{{ c.teacher }}</td>
            <td><a href="{{ path('assignment') }}">Assignment</a></td>
        </tr>
{% endfor %}
</table>
```
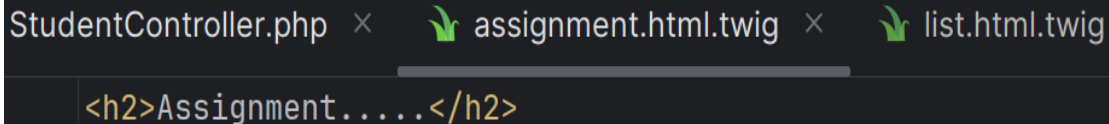
- Create a new method assignment

```
//Assignment
no usages
#[Route('/assignment', name: 'assignment')]
public function assignment(): Response
{
    return $this->render( view: 'student/assignment.html.twig');
}
```

- Create a new view assignment.html.twig under the directory Templates/student

```
StudentController.php  ×      assignment.html.twig  ×      list.html.twig

    <h2>Assignment.....</h2>
```

I.8. Students List (Objects)

1. **List of students and courses:**

   1.1 Create two classes under the directory *src/Entity*
   - *Student:*
     - id
     - name
     - age

   - **Course:**
     - id
     - title
     - students []

1.2 In the **StduentController**, create a method called **students():**

- return a twig template "students.html.twig"

- define an array of students (array of objects)

- define an array of courses (array of objects)

- assign all students to all courses

- display these two arrays in the twig template

0- Create a controller **CourseController**
0-1 Add the first method **detail()**

```
#[Route('/course/{id}', name: 'course_detail')]
public function detail(int $id): Response {
$course = [
        'id' => $id,
        'title' => 'Web Development with Symfony',
        'instructor' => ['name' => 'Dr. Wissem Eljaoued', 'email' => 'wissem@uni.tn'],
        'semester' => 'S1',
        'sessions' => [ ['date' => new \DateTime('2025-10-01'), 'topic' => 'Introduction to Symfony'],
                        ['date' => new \DateTime('2025-10-08'), 'topic' => 'Routing and Controllers'],
                        ['date' => new \DateTime('2025-10-15'), 'topic' => 'Twig Templates'],    ],
        'resources' => [
            ['title' => 'Symfony Documentation', 'url' => 'https://symfony.com/doc'],
            ['title' => 'Twig Reference', 'url' => 'https://twig.symfony.com/doc'],
        ],
    ];
    return $this->render('course/detail.html.twig', ['course' => $course]);
}
```

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0-2 Add the second method **relatedCourses()**

```php
#[Route('/course/{id}/related', name: 'related_courses')]
public function relatedCourses(int $id): Response
  {
     // Example related courses
     $related = [
        ['title' => 'Advanced Symfony', 'code' => 'SYM2'],
        ['title' => 'API Platform Fundamentals', 'code' => 'API1'],
     ];

     return $this->render('partials/_related_courses.html.twig', [
        'related_courses' => $related,
     ]);
  }
```

1- Create the following files

```
templates/
├── base.html.twig
├── course/
│   └── detail.html.twig
└── partials/
    ├── _navbar.html.twig
    ├── _footer.html.twig
    ├── _resources.html.twig
    └── _related_courses.html.twig
```

2- Base Template – *templates/base.html.twig* (global structure with extendable blocks and partial includes)

```twig
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>{% block title %}My University{% endblock %}</title>
    <link rel="stylesheet" href="{{ asset('css/app.css') }}">
</head>
<body>
    {% include 'partials/_navbar.html.twig' %}

    <main class="container">
        {% block content %}{% endblock %}
    </main>

    {% include 'partials/_footer.html.twig' %}
</body>
</html>
```

3- Navbar Partial *— templates/partials/_navbar.html.twig*

```
<nav class="navbar">
   <a href="{{ path('homepage') }}">Home</a>
   <a href="{{ path('course_list') }}">Courses</a>
   <a href="{{ path('contact') }}">Contact</a>
</nav>
```

4- Footer Partial *— templates/partials/_footer.html.twig*

```
<footer>
   &copy; {{ "now"|date("Y") }} My University
</footer>
```

5- Course Resources Partial *— templates/partials/_resources.html.twig*

This partial is included inside the *course detail template*.

```twig
<aside class="resources">
  <h3>Course Resources</h3>
  <ul>
    {% for res in resources %}
      <li><a href="{{ res.url }}">{{ res.title }}</a></li>
    {% else %}
      <li>No resources available.</li>
    {% endfor %}
  </ul>
</aside>
```

6- Child Template (1/2) —
templates/course/detail.html.twig

This is the course page that *extends the base template*, *includes static partials*, and *dynamically includes a controller.*

```twig
{% extends 'base.html.twig' %}

{% block title %}{{ course.title }} | My University{% endblock %}
{% block content %}
  <section class="course-info">
    <h1>{{ course.title }}</h1>
    <p><strong>Instructor:</strong> {{ course.instructor.name }}</p>
    <p><strong>Semester:</strong> {{ course.semester }}</p>
  </section>

  <section class="sessions">
    <h2>Sessions</h2>
    <ul>
      {% for s in course.sessions %}
        <li>{{ s.date|date('Y-m-d') }} — {{ s.topic }}</li>
      {% else %}
        <li>No sessions scheduled.</li>
      {% endfor %}
    </ul>
  </section>
```

6- Child Template (2/2) –
templates/course/detail.html.twig

```
{# Include static partial (resources) #}

{% include 'partials/_resources.html.twig' with {'resources': course.resources} %}

  <hr>

  {# Include controller dynamically for related courses #}

  <section class="related">
    <h2>Related Courses</h2>
    {{ render(controller(
      'App\\Controller\\CourseController::relatedCourses',
      {'id': course.id}
    )) }}
  </section>

{% endblock %}
```

7- Related Courses Partial *— templates/partials/_related_courses.html.twig*

This template is rendered by the *relatedCourses*() controller.

```twig
<ul class="related-courses">
  {% for course in related_courses %}
    <li>{{ course.code }} - {{ course.title }}</li>
  {% else %}
    <li>No related courses found.</li>
  {% endfor %}
</ul>
```

How Everything Works Together

Concept	Example
Inheritance	detail.html.twig *extends* base.html.twig
Inclusion (template)	_navbar, _footer, _resources are included statically
Inclusion (controller)	{{ render(controller('...::relatedCourses')) }} dynamically fetches and displays data