

University of the West of Scotland  
Computing Honours Project Specification 2025/26

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**A Comparative Performance Analysis of PHP MVC Frameworks: Laravel,  
Symfony, CodeIgniter, and Yii**

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**Student Details:**

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Programme: BSc (Hons) Web and Mobile Development  
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**Project Aim**

To evaluate and compare the performance, scalability, and developer experience of major PHP MVC frameworks – Laravel, Symfony, CodeIgniter, and Yii – through benchmarking and qualitative analysis.

**Objectives**

1. Develop equivalent CRUD-based web applications in each framework.
2. Conduct performance benchmarking using Apache JMeter and Locust.
3. Compare results for response time, throughput, and memory usage.
4. Analyse qualitative factors such as ease of setup and developer experience.
5. Present findings in a report and visual presentation.

**Methods and Tools**

PHP 8.x, MySQL, Apache/Nginx, JMeter, Locust, VS Code, GitHub, and data visualisation tools.

**Resources Required**

Local or virtual testing environment (Docker or XAMPP) with PHP and MySQL support.

**Ethical Considerations**

No human participants are required/involved. All benchmarking will occur on non-production environments.

## **Proposed Marking Scheme**

Literature Review & Research – 15%

Application Development – 25%

Benchmarking & Testing – 25%

Analysis & Evaluation – 20%

Report & Presentation – 15%

## **Signatures**

Student: Corey Black

Supervisor: \_\_\_\_\_

Moderator: \_\_\_\_\_