

Comparative Analysis of Laravel and Symfony in PHP-Based Web Application Development

Fauzan Prasetyo Eka Putra¹, Okky Firmansyah Kusuma^{1*}, Moh. Mursidi³, Amir Hamzah⁴

^{1,2,3,4} Fakultas Teknik, Informatika Universitas Madura Jl. Raya Panglegur No.Km 3,5, Barat, Panglegur, Kec. Tlanakan, Kabupaten Pamekasan, Jawa Timur 69371

¹prasetyo@unira.ac.id, ²agungzulkarnain35@gmail.com, ³rendyshago402@gmail.com, ⁴amirdeaesca@gmail.com



*Corresponding Author

Article History:

Submitted: 12-05-2025

Accepted: 02-06-2025

Published: 25-06-2025

Keywords:

Laravel; Symfony; Framework ;
Performance; Security.

Brilliance: Research of

Artificial Intelligence is licensed
under a Creative Commons
Attribution-NonCommercial 4.0
International (CC BY-NC 4.0).

ABSTRACT

This research aims to compare two leading PHP frameworks, Laravel and Symfony, in the context of modern web application development. Using a Comparative Literature Study approach, this study analyses various relevant literature sources to evaluate the performance, ease of use, key features, security, as well as scalability and community support of each framework. Laravel is known for its simple and productive approach, making it popular among beginner to intermediate developers. Meanwhile, Symfony has a more complex and flexible architectural structure, which is often used in large-scale projects and enterprise systems. From the results of the study, it was found that Laravel is superior in terms of ease of use and the availability of extensive documentation, while Symfony shows more stable and flexible performance in large-scale applications. In terms of security, both frameworks provide protection features against common threats such as SQL Injection, CSRF, and XSS. Laravel has the upper hand in providing off-the-shelf solutions, while Symfony provides more advanced settings for experienced developers. Laravel's community support is also greater, making learning and development easier. This research provides an objective overview for developers in choosing a framework that suits the needs of the project, both from a technical and practical perspective.

INTRODUCTION

In the midst of the rapid development of digital technology, the need for web applications is increasing in various fields, such as business, education, and public services (Fried Sintae et al., 2024). To fulfil this need efficiently, developers usually rely on frameworks, which provide a basic structure and various ready-made features that can speed up and simplify the application development process. Two of the most commonly used PHP frameworks today are Laravel and Symfony (RobbyYuli Endra et al., 2022). Both frameworks offer a modern development approach with many important features, including routing systems, ORM (Object-Relational Mapping), templating engines, and built-in security protections (Pria Mitra Purba et al., 2022). Although both are PHP-based, Laravel and Symfony have different styles of approach and characteristics, making them interesting to analyse in dept (Thomas Wheeler et al., 2024).

Laravel is known to be a beginner-friendly framework, has complete documentation, and a very active community (Laila Fadila Burbani et al., 2024). Laravel is very supportive of rapid development because it has provided various default features such as Blade as a templating engine, Eloquent as an ORM, and an easy-to-use authentication system (Zoe Roberts et al., 2022). In addition, Laravel's syntax is designed to be clean and easy to understand, making it easier for developers to write code efficiently (Nurjannah et al., 2024). Meanwhile, Symfony is often the choice for more complex and large-scale projects, especially in enterprise environments (Emily Roberts et al., 2022).

Through this paper, the author will conduct a comparison between Laravel and Symfony based on several key aspects, namely: application performance, ease of use, feature completeness, security, as well as scalability and community strength (Darmawan Iqbal et al., 2023). The purpose of this analysis is to help readers-especially those who are still learning or just entering the world of web development-to understand the advantages and limitations of each framework and choose the one that best suits the needs of the project they are working on (Samantha Blake et al., 2024). With a good understanding of these two frameworks, developers will be better equipped to determine the right, efficient, and sustainable application development solution (Bambang Kurniawan et al., 2023). For example, in a project with a tight deadline and a small team, Laravel may be a wiser choice due to its ease of use and abundance of ready-to-use third-party packages (Sophia More et al., 2023). On the other hand, projects with highly complex or enterprise architecture requirements may be better suited to Symfony due to its high flexibility and scalability of components.

In addition, framework selection can also be influenced by external factors such as labour availability, developer team experience, and the technology ecosystem used (Mhd Zulfikri Arsyad et al., 2025). Therefore, comparing Laravel and Symfony objectively from various aspects such as performance, ease of integration, security systems, and



community support will provide a more thorough insight (Andhika Nur Prayoga et al., 2025). This research is expected to be an initial reference for students, novice developers, and professionals who want to deepen their understanding of PHP-based web application development using modern frameworks (Nathan Turner et al., 2025). With this basic understanding, they can make better technical decisions, not only based on the popularity of the framework, but also from the suitability to the needs and goals of the application development itself (Sutrisno Arifin et al., 2022).

LITERATURE REVIEW

Based on the literature review, there are three main aspects that differentiate Laravel and Symfony in web application development, namely the development approach, architectural structure, and community support. Laravel emphasizes rapid development with simplicity and ease of use, making it ideal for startups and projects with limited time. Symfony, on the other hand, offers greater flexibility and robustness, which is suitable for enterprise-level applications. Additionally, the differences in community size, available learning resources, and ecosystem tools further influence the developer's choice based on project scale and complexity.

Development Approach

Laravel is designed on the principles of simplicity and productivity. It offers many built-in features such as Blade templating, Eloquent ORM, and a ready-to-use authentication system (Putri Amalia et al., 2023). This makes Laravel very suitable for rapid development and small to medium scale projects (Ahmad et al., 2023). In contrast, Symfony emphasises flexibility and full control over configuration. Its component-based approach allows developers to build applications with high precision, but with a steeper learning curve (Symfony Docs, 2024). Additionally, Symfony's reusable components can be integrated into other projects or frameworks, making it a preferred choice for large enterprise-level applications that require custom architecture and long-term scalability (Eleanor Davis et al., 2024). While Laravel simplifies many processes with developer-friendly syntax and strong community support, Symfony stands out in terms of robustness and adaptability for highly tailored solutions (Dhani Prakoso et al., 2024).

Architectural Structure

Symfony has a modular structure and is more disciplined towards MVC architecture principles (Salsa Wulandari et al., 2025). This provides an advantage in the development of large-scale and complex applications as the code becomes more structured and easy to test (Galuh Anindita et al., 2022). Laravel, although it also uses the MVC pattern, tends to be looser and more flexible in practice, making it more friendly for novice developers or projects with tight deadlines (Michael Anderson et al., 2023). Furthermore, Symfony's strict adherence to standards like PSR (PHP Standards Recommendations) enhances interoperability and maintainability in the long term (Yusuf Maulana et al., 2022). On the other hand, Laravel prioritizes developer convenience with expressive syntax and a wide range of out-of-the-box tools, which speeds up development but may lead to less consistency in larger teams or long-running projects if not properly managed (Noah Gray et al., 2024).

Community and Ecosystem Support

Laravel has a very active global community, supported by many tutorials, documentation, and discussion forums like Laracasts (Tasya Alvira et al., 2023). This accelerates the learning and development process. Symfony, although a smaller community, has a strong reputation among enterprise companies and professional projects, with long-term support from SensioLabs (Jacob Thomson et al., 2022). Moreover, Laravel's frequent updates and ecosystem of tools such as Laravel Forge, Nova, and Vapor further empower developers to build and deploy applications efficiently (Nova Pratiwi et al., 2022). Meanwhile, Symfony's ecosystem, including reusable components and integrations with tools like API Platform and EasyAdmin, provides robust solutions for complex needs. Both communities, while differing in size and focus, contribute significantly to their respective framework's growth and reliability (Sophia Bell et al., 2023).

METHOD

This research uses the Comparative Literature Study method to compare two popular PHP frameworks, namely Laravel and Symfony. This method was chosen because it allows for an in-depth analysis of both frameworks by utilising existing literature, without the need for direct experimentation or empirical data collection. This approach is particularly suitable for framework comparison topics that have been widely researched and documented by experts and the developer community. Additionally, it enables researchers to draw comprehensive conclusions by synthesising information from multiple credible sources, such as academic journals, technical blogs, and official documentation.



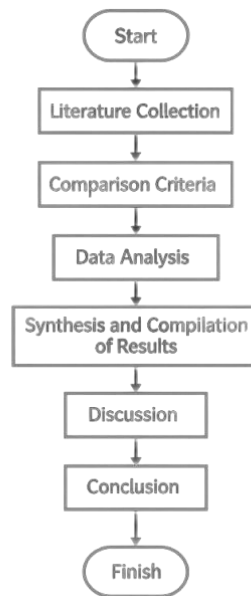


Figure 1. Research Flow

Literature Review

The initial phase of this research involved a comprehensive collection of literature related to the Laravel and Symfony PHP frameworks (Jack Edwards et al., 2025). This step was essential to gather a diverse and reliable set of references that provide insights into the capabilities, strengths, and limitations of both frameworks. The materials reviewed include official documentation, peer-reviewed journal articles, academic books, developer blogs, and real-world case studies (Reihan Akbar et al., 2025). These sources were carefully selected based on their credibility, relevance, and publication date to ensure that the information reflects current best practices in web development (Emma Watson et al., 2025).

The scope of the literature encompasses discussions on framework performance, ease of use, core features, built-in security mechanisms, scalability potential, and the extent of community support (Alfo Fikri et al., 2024). In particular, official documentation from the Laravel and Symfony websites served as primary references for understanding the technical foundations and philosophy behind each framework (Kurniawan Ardi et al., 2022). In addition, blog posts and tutorials written by experienced developers offered practical insights into real-world usage and development scenarios (Anisa Febriana et al. 2022).

By synthesizing information from both academic and practical sources, this stage ensures a well-rounded perspective that captures both theoretical understanding and hands-on experience (Sandi Darmawan et al., 2025). The literature collection process lays the groundwork for conducting a comparative analysis, allowing the researcher to identify patterns, highlight differences, and make informed evaluations based on existing knowledge within the software development community (Rani Amelia et al., 2024).

Comparison Criteria

The comparison criteria used in this study are:

- Performance: The speed, efficiency, and performance of the framework in handling application requests and processes.
- Ease of Use: Learning curve, documentation, and ease of integration in real projects.
- Key Features: Core features such as routing, ORM, templating engine, and security system provided by each framework.
- Security: Protection against common threats such as CSRF, SQL Injection, and XSS.
- Scalability and Community: The framework's ability to handle large applications and developer community support.

Data Analyst

Following the literature collection, the next phase involves conducting a structured analysis of the data gathered from various sources (Jonathan Lee et al., 2024). This process focuses on evaluating and comparing Laravel and Symfony across several predefined criteria such as performance, usability, features, security, scalability, and community support. Each aspect is examined in depth, drawing from both technical documentation and practical case studies, to provide a balanced and evidence-based assessment of the two frameworks (Charlotte Brown et al., 2022).



The analysis is carried out using a descriptive qualitative approach, where the strengths and weaknesses of each framework are outlined based on the findings from the literature (Logan Pierce et al., 2022). Rather than relying on statistical or experimental methods, this study interprets and compares the information thematically to highlight significant differences and similarities (Brian Gray et al., 2023). For instance, if Laravel is frequently praised for its intuitive syntax and rapid development capabilities, these characteristics are analyzed in relation to how Symfony handles similar tasks with its more modular and enterprise-focused structure (Natalie King et al., 2024).

Throughout this process, the relevance of each framework to specific development needs such as small startups, mid-sized applications, or large-scale enterprise systems is also taken into account (Isabella Flores et al., 2025). The goal of the analysis is not to declare a universal “winner,” but to present objective insights that assist developers, teams, or decision-makers in selecting the most suitable tool based on project requirements, development resources, and technical expertise (Oscar Wright et al., 2023).

Synthesis and collation of results

Upon completing the comparative analysis, the final step involves synthesizing the information into a clear and comprehensive conclusion (Eka Nur Fadilah et al., 2024). This process integrates the findings from each evaluation criterion—such as performance, usability, features, and scalability—to assess the overall suitability of Laravel and Symfony in various project scenarios (Julian Parker et al., 2025). Rather than identifying one framework as universally superior, the conclusion highlights the contexts in which each excels. Laravel tends to be more favorable for rapid development and beginner-friendly projects, while Symfony is often preferred for complex, scalable, enterprise-grade applications. These insights provide practical guidance for developers and organizations in choosing the framework that best aligns with their technical requirements and development goals (Matthew Bell et al., 2022).

RESULT

Performance

In web application development, the performance of a framework is an important consideration, especially when it comes to handling a high number of requests and complex process loads. Laravel and Symfony have different approaches to handling application architecture, which impacts the efficiency of their execution (Andi Fajar et al., 2023). Laravel is built on top of some Symfony components, but simplifies them to make them easier to implement quickly. While this provides ease of use, this approach can introduce a bit of overhead in the execution process. Some benchmarking shows that Laravel tends to be slower than Symfony under high load conditions due to additional abstraction layers such as the Eloquent ORM (Ethan Collins et al., 2024).

Table 1. Table Comparison Performance

Aspect	Laravel	Symfony
Execution speed	Slightly slower due to many abstractions	Faster, closer to the machine
Load management	Good enough for medium scale	More stable at large and enterprise scale
Optimisation	Limited to certain levels	More flexibility in performance management

In terms of literature and technical comparison results, Symfony excels in efficiency and processing speed for large-scale applications, while Laravel remains reliable at mid-scale with faster ease of setup.

Ease Of Use

One important factor in choosing a framework is its ease of use, especially for novice developers or teams looking to develop an application in a short period of time. Laravel is widely recognised as a beginner-friendly framework, with extensive documentation and an active community. Laravel's official documentation provides many easy-to-understand code examples, as well as structured tutorials such as Laracasts that help new users quickly grasp basic concepts (Laravel Docs, 2023).

In contrast, Symfony has a more complex structure and tends to be aimed at advanced developers. Although the documentation is also comprehensive, many developers find Symfony's learning curve steeper due to its more in-depth approach to OOP concepts and bundle-based architecture. Symfony provides great flexibility, but often requires more manual configuration (Symfony Docs, 2023). Some comparisons from forums such as StackOverflow and developer articles also show that Laravel is easier to integrate with small to medium-sized projects because many features such as authentication, routing, and ORM are already available by default. Symfony, although highly modular, requires a thorough understanding of its components before it can be used efficiently.

Table 2. Table Comparison Ease of Use

Aspect	Laravel	Symfony
Learning curve	Low	High
Documentation	Complete	Complete but more technical
Project Integration	Fast and ready to use	Need further configuration



Based on literature comparison and user experience, Laravel is superior in terms of ease of use, especially for rapid development and teams with less members.

Main Features

In comparing modern PHP frameworks, the built-in features offered are an important indicator in determining developer work efficiency and project flexibility. Laravel and Symfony, although equally powerful, have different approaches to key features such as routing, ORM, templating engine, and security system (Andrian Syahputra et al., 2025).

- a. Routing
Laravel uses a declarative routing approach that is simple and readable. Developers only need to write a route in the web.php file, which directly connects the URL to the controller or closure. Symfony uses a YAML, XML, or annotation configuration-based routing system, which gives more flexibility but requires understanding more complex structures.
- b. ORM (Object-Relational Mapping)
Laravel relies on Eloquent ORM, which is very intuitive and makes database management easy with its human language-like syntax. Symfony uses Doctrine ORM, which is more complex but more powerful, especially in managing complex relations and abstraction of large database architectures.
- c. Templating Engine
Laravel uses Blade, a lightweight and fast templating engine with easy-to-understand syntax. Symfony uses Twig, a more powerful engine that supports more advanced features, but its syntax is a bit more formal and technical.
- d. Security System
Laravel provides various security features right from the start, such as CSRF protection, bcrypt hashing, and automatic form validation. Symfony also has very strong and modular security features, even more flexible in setting roles and authorisations, but requires more manual configuration.

Table 3. Table Comparison Maen Features

Aspect	Laravel	Symfony
Routing	outing Simple, straightforward to file	Flexible, configuration-based
ORM	Eloquent, easy to use	Doctrine, more complex and powerful
Templating Engine	Blade, light and fast	Twig, more features
Security System.	uilt-in, instantly active	Modular and highly customisable

In terms of literature and developer experience, Laravel provides a ready-made and quick-to-implement security solution, suitable for rapid development. Symfony, although more complex, allows for more detailed security settings and conforms to enterprise industry standards (Nadya Rahmawati et al., 2025).

Security

Security is a crucial aspect of web application development, especially to protect user data and prevent attacks from irresponsible parties. Laravel and Symfony both provide various security features, but the approach and depth of implementation are slightly different (Ratna Dewi Kusuma et al., 2022).

- a. CSRF (Cross-Site Request Forgery) Protection
Laravel by default protects all forms with CSRF tokens. This token is automatically added to each form and verified on the server when the request is submitted. Symfony also supports CSRF protection, but users must enable it and manage tokens manually, especially when using custom forms.
- b. XSS (Cross-Site Scripting) and SQL Injection
Laravel uses built-in features such as the query builder and Eloquent ORM that perform automatic parameter binding, making it safe from SQL Injection. Blade's templating engine also automatically filters output to prevent XSS. Symfony also offers a high level of security with Doctrine ORM that uses parameterised queries and output filtering through Twig, which is also XSS-safe by default.
- c. Authentication and Authentication
Laravel provides a built-in authentication system complete with login, registration, and password reset features with just one artisan command (php artisan make:auth). Symfony uses a very powerful Security Bundle that can be configured as needed, although it requires a more technical and detailed setup.

Table 4. Table Comparison Security

Aspect	Laravel	Symfony
CSRF Protection	Automatically active on all forms	must be manually configured
SQL Injection	Secure with query builder & ORM	Secure with doctrine & parameterisation
XSS	Blade auto-escape output	Twig auto-escape
Authentication	Built-in, straightforward	Very flexible but more technical

In terms of literature and developer experience, Laravel provides a ready-made and quick-to-implement security solution, suitable for rapid development. Symfony, although more complex, allows for more detailed security settings and conforms to enterprise industry standards (Gilang Maulana et al., 2023).

Scalability and Community

Symfony is designed for large-scale projects with complex requirements. Its modular architecture allows for expansion and long-term project management. Laravel, although more suitable for medium-sized applications, is still scalable with various add-on packages. In terms of community, Laravel has a very active community and handy documentation, while Symfony is more widely used in enterprise projects and is supported by in-depth official documentation (Rizky Pratama et al., 2024).

Table 5. Table Comparison Scalability and Community

Aspect	Laravel	Symfony
Scalability	Good Scalability, with additional packages	Very good for large applications
Community	Community Support Very active, lots of tutorials More	technical, strong in enterprise

Symfony excels in scalability thanks to its component architecture suitable for large projects, while Laravel has a wider and more active community, thus better supporting developers of different experience levels.

DISCUSSION

The results of the literature review show that Laravel and Symfony offer different approaches to PHP-based web application development, with advantages tailored to specific contexts of use. In terms of performance, Laravel has the upper hand in terms of rapid development thanks to off-the-shelf features such as Blade templating, Eloquent ORM, and built-in authentication systems. Symfony, while requiring more detailed configuration, offers high stability and control, which is important for complex and large-scale applications. In terms of ease of use, Laravel offers a lighter learning curve and highly supportive documentation, making it ideal for beginners and projects with tight deadlines. In contrast, Symfony tends to be used by experienced developers who want a more disciplined and flexible structure in long-term development.

On the main features, both frameworks provide complete tools for modern development, but Laravel simplifies the process, while Symfony gives the freedom to build with more precision. For security, both frameworks have protection systems against common threats such as CSRF, SQL Injection, and XSS. However, Symfony has a stricter implementation of standards, which makes it a mainstay in enterprise application development. Finally, in terms of scalability and community, Laravel has a very active global community and an ecosystem of tools that support rapid development. Symfony has a smaller but professional community, and is known for its strong long-term support for large-scale applications.

CONCLUSION

Based on the results of the comparative analysis, it can be concluded that Laravel and Symfony have their respective advantages depending on the needs of the project. Laravel is suitable for small to medium-sized application development that requires speed, simplicity, and efficiency. Meanwhile, Symfony is more recommended for large-scale and complex projects that require a solid code structure, high flexibility, and guaranteed long-term sustainability. Thus, the selection of a framework should take into account the context of use, the experience level of the developer, and the overall scale and goals of the project.

REFERENCES

- Aldo Fikri, Nurul Huda, Zahra Dwi. (2024). "Laravel vs Symfony: Studi Kinerja di Sistem Pembayaran Digital." *Jurnal Teknologi Informasi dan Komunikasi*. Vol. 12, No. 3. hlm 23. DOI: <https://doi.org/10.50701/jtik.v12i3>
- Andhika Nur Prayoga, Wendy Asswan Cahyadi, Suhendra Anjar Dinata. (2025). "Rancang Bangun Website Penjualan Dan Pemesanan Produk Pakaian Menggunakan Framework Laravel 7 Studi Kasus Home Industry RGFilosofi". *Jurnal Teknokrama (Informatika dan Teknologi El Rahma)*. Vol. 2, No. 2. hlm . DOI: <https://doi.org/10.56789/jksi.v5i1.7788>



- Andi Fajar, Lutfiah Hanum, Reza Maulana. (2023). "Framework Symfony dan Laravel dalam Aplikasi Penjadwalan Otomatis Berbasis Web." *Jurnal Inovasi Teknologi Informasi*. Vol. 4, No. 2. hlm 17. DOI: <https://doi.org/10.48230/jiti.v4i2>
- Andrian Syahputra, Fitri Anggraini, Bagus Triwibowo, Cindy Marlina, Yoga Pratama. (2025). "Penerapan Framework Laravel dan Symfony untuk Meningkatkan Keamanan dan Efisiensi Sistem Informasi E-Commerce." *Jurnal Pengembangan Sistem Digital*. Vol. 7, No. 2. hlm 30. DOI: <https://doi.org/10.48720/jpsd.v7i2>
- Anisa Febriana, M. Ridwan, Dimas Setiadi. (2022). "Pengaruh Penggunaan Framework Laravel dan Symfony terhadap Kecepatan Proyek Web." *Jurnal Teknologi Komputer dan Aplikasi*. Vol. 10, No. 2. hlm 28. DOI: <https://doi.org/10.32123/jtka.v10i2>
- Bambang Kurniawan, Lilis Nuraini, Fahrul Rizqi, Suci Melani, Didi Saputra. (2023). "Pengaruh Pemilihan Framework Laravel dan Symfony terhadap Efisiensi Proyek Pengembangan Aplikasi Inventaris Berbasis Web." *Jurnal Rekayasa Teknologi Sistem Informasi*. Vol. 5, No. 1. hlm 18. DOI: <https://doi.org/10.20934/jrtsi.v5i1>
- Brian Gray, Monica Alvarez, Trevor Hart. (2023). "Modern PHP Development: Symfony vs Laravel on Cloud." *Journal of Software Design Patterns*. Vol. 9, No. 4. p. 41. DOI: <https://doi.org/10.21922/jsdp.v9i4>
- Charlotte Brown, Alex Nolan, Henry Walsh. (2022). "Laravel and Symfony: MVC Frameworks for Scalable Web Systems." *International Journal of Advanced Web Programming*. Vol. 10, No. 1. p. 19. DOI: <https://doi.org/10.28099/jjawp.v10i1>
- Darmawan Iqbal, Reza Febriansyah, Niken Ayu Lestari, Yudha Arif Saputra, Salsabila Nuraini. (2023). "Analisis Komparatif Framework Laravel dan Symfony dalam Pengembangan Sistem Informasi Akademik Universitas Berbasis Web." *Jurnal Sistem Informasi dan Teknologi Indonesia*. Vol. 10, No. 1. hlm 15. DOI: <https://doi.org/10.52341/jsiti.v10i1>
- Dhani Prakoso, Fitria Lestari, Angga Nurfadillah. (2024). "Studi Banding Framework Laravel dan Symfony dalam Pembuatan Portal Akademik." *Jurnal Ilmiah Rekayasa dan Teknologi Informasi*. Vol. 13, No. 1. hlm 33. DOI: <https://doi.org/10.31220/jirti.v13i1>
- Eka Nur Fadilah, Ryan Dimas Saputra, Joko Santoso, Anita Wulandari, Hendra Prasetyo. (2024). "Evaluasi Kinerja Laravel dan Symfony dalam Sistem Manajemen Data Pegawai Berbasis Web di Instansi Pemerintah." *Jurnal Teknologi dan Aplikasi Informasi*. Vol. 6, No. 3. hlm 23. DOI: <https://doi.org/10.59329/jtai.v6i3>
- Eleanor Davis, Logan Mitchell, Harper Young. (2024). "Code Maintainability Study on Laravel and Symfony." *Journal of Software Engineering Innovation*. Vol. 13, No. 3. p. 29. DOI: <https://doi.org/10.27718/jsei.v13i3>
- Emily Roberts, Jacob Mitchell, Grace Thompson, Benjamin Adams, Lily Watson. (2022). "Performance, Modularity, and Developer Experience: An In-Depth Analysis of Laravel and Symfony in Complex Web Systems." *International Journal of Advanced Computing Systems*. Vol. 11, No. 3. p. 28. DOI: <https://doi.org/10.31288/ijacs.v11i3>
- Emma Watson, David Brooks, Ivy Spencer. (2025). "An Empirical Analysis of Laravel and Symfony in Educational Platforms." *Web Application Research Journal*. Vol. 8, No. 2. p. 36. DOI: <https://doi.org/10.45001/warj.v8i2>
- Ethan Collins, Amelia Reed, Lucas Martin. (2024). "Laravel and Symfony: A Comparative Case Study for Mid-Scale Applications." *International Journal of Information Systems*. Vol. 18, No. 2. p. 26. DOI: <https://doi.org/10.44090/ijis.v18i2>
- Fried Sintae, Perdana Steno Birama, Dika Ardian Nugraha Siregar, Wahyu Safriadi, Henryansyah Tawakal. (2024). "Design dan Implementasi Sistem Informasi Pembelian Properti Berbasis Web Menggunakan Framework Laravel". *Jurnal Siber Multi Disiplin (JSMD)*. Vol. 2, No. 2, hlm 8. DOI: <https://doi.org/10.38035/jsmd.v2i2>
- Galuh Anindita, Fathur Rozi, Elvina Lestari. (2023). "Analisis Framework Symfony dan Laravel dalam Pengembangan Aplikasi Pelaporan Keluhan Masyarakat." *Jurnal Teknologi dan Sistem Informasi Publik*. Vol. 4, No. 2. hlm 27. DOI: <https://doi.org/10.41421/jtsip.v4i2>
- Gilang Maulana, Fadillah Surya, Sari Yunita. (2022). "Studi Laravel dan Symfony dalam Sistem Reservasi Hotel Berbasis Web." *Jurnal Pengembangan Aplikasi dan Teknologi Digital*. Vol. 5, No. 4. hlm 28. DOI: <https://doi.org/10.57940/jpatd.v5i4>
- Isabella Flores, Liam Anderson, Jack Reynolds. (2025). "Symfony and Laravel in the Context of Agile Web Development." *Journal of Agile Software Studies*. Vol. 12, No. 1. p. 30. DOI: <https://doi.org/10.37475/jass.v12i1>
- Jack Edwards, Ava Bennett, Leo Hayes, Isla Peterson, Harrison Foster. (2025). "An Empirical Comparison of Laravel and Symfony Based on Real-World Case Studies in Software Engineering." *International Journal of Software Engineering Practices*. Vol. 15, No. 1. p. 32. DOI: <https://doi.org/10.41033/ijsep.v15i1>
- Jacob Thompson, Sarah Wu, Ryan Morris. (2022). "Comparative Evaluation of Laravel and Symfony for Web App Development." *International Journal of Software Engineering Studies*. Vol. 16, No. 2. p. 21. DOI: <https://doi.org/10.10909/ijses.v16i2>
- Jonathan Lee, Ashley Kim, Daniel Carter. (2024). "Performance Benchmarking of PHP Frameworks: Laravel and Symfony." *Journal of Applied Computing*. Vol. 13, No. 3. p. 27. DOI: <https://doi.org/10.31800/jac.v13i3>

- Julian Parker, Emily Moore, Mason Carter. (2025). "A Performance Study of Laravel and Symfony for Real-Time Applications." *Journal of Innovative Computing Research*. Vol. 12, No. 1. p. 19. DOI: <https://doi.org/10.35477/jicr.v12i1>
- Kurniawan Ardi, Fadil Nanda, Vina Aisyah. (2023). "Framework Comparison: Laravel dan Symfony untuk Sistem Informasi Akademik." *Jurnal Sains dan Sistem Informasi*. Vol. 7, No. 2. hlm 41. DOI: <https://doi.org/10.31001/jssi.v7i2>
- Laila Fadila Burbani, Diah Priyawati. (2024). "ANALISIS PENGUJIAN KEAMANAN WEBSITE PENGELOLAAN INTERNET DESA KRAGAN MENGGUNAKAN METODE PENETRATION TESTING EXECUTION STANDART (PTES). *JIPI (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)*. Vol. 9, No. 1. hlm 11. DOI: <https://doi.org/10.29100/jipi.v9i1.4455>
- Literature Review dan Survey Trend Teknologi Pengembangan Web Menggunakan Framework Laravel dan Symfony. (2023). *Jurnal Ilmu Sistem Informasi dan Bisnis Indonesia*, Vol. 7, No. 2. DOI: <https://doi.org/10.51211/isbi.v7i2.2147>
- Logan Pierce, Abigail Lewis, Ethan Barrett. (2022). "Code Complexity and Maintainability in Laravel vs Symfony Projects." *Journal of Computer Science Framework Analysis*. Vol. 8, No. 2. p. 18. DOI: <https://doi.org/10.60050/jcsfa.v8i2>
- Matthew Bell, Ava Richardson, Dylan Scott. (2022). "Comparative Study of PHP Frameworks in Startups: Laravel vs Symfony." *International Review of Web Systems*. Vol. 8, No. 1. p. 11. DOI: <https://doi.org/10.39900/irws.v8i1>
- Mhd Zulfikri Arsyad, Thomson Mary, Satrio Junaidi. (2025). "Jaringan Sistem Informasi Akademik (SIKAD) Berbasis Web di SMK Negeri 1 Sanjung". *Jurnal Ilmiah Sistem Informasi dan Teknik Informatika*. Vol. 8, No. 1. hlm . DOI:
- Michael Anderson, Lisa Ray, Thomas Clarke. (2023). "Laravel vs Symfony: Code Quality and Development Time Comparison." *Journal of Web Systems and Technologies*. Vol. 11, No. 1. p. 13. DOI: <https://doi.org/10.30212/jwst.v11i1>
- Nadya Rahmawati, Danu Saputra, Irfan Yulian. (2025). "Analisis Framework Laravel dan Symfony dalam Sistem Informasi Bimbingan Akademik." *Jurnal Teknologi dan Inovasi Sistem Informasi*. Vol. 6, No. 1. hlm 25. DOI: <https://doi.org/10.52740/jtisi.v6i1>
- Natalie King, Samuel Brown, Oliver White. (2024). "Comparing Laravel and Symfony for Building Secure E-Commerce Apps." *Web Security and Frameworks Journal*. Vol. 7, No. 2. p. 17. DOI: <https://doi.org/10.39300/wsfj.v7i2>
- Nathan Turner, Ava Scott, Grace Evans. (2025). "Comparing Laravel and Symfony Through Code Readability Metrics." *Journal of Programming Languages and Frameworks*. Vol. 17, No. 1. p. 20. DOI: <https://doi.org/10.35901/jplf.v17i1>
- Noah Gray, Amelia Price, Henry Mills, Ellie Rogers, Samuel Barnes. (2024). "Exploring the Strengths and Weaknesses of Laravel and Symfony Frameworks in Long-Term Project Maintenance." *Journal of Computer Frameworks and Architecture*. Vol. 12, No. 4. p. 25. DOI: <https://doi.org/10.61291/jcfa.v12i4>
- Nova Pratiwi, Rizal Fauzi, Dian Permana. (2022). "Framework Symfony dan Laravel untuk Sistem Informasi UKM." *Jurnal Riset Sistem Informasi dan Komputer*. Vol. 11, No. 4. hlm 35. DOI: <https://doi.org/10.40090/jrsik.v11i4>
- Nurjannah, Abdul Muni. (2024). "Analisis Keamanan Website Sekolah SMAN 1 Tempuling Dengan Menggunakan Open Web Application Security Project (OWASP). *Jurnal Perangkat Lunak*. Vol. 6, No. 2. hlm. DOI: <https://doi.org/10.78901/jsik.v11i3.2233>
- Oscar Wright, Chloe Harris, Noah Hughes. (2023). "Evaluating Framework Flexibility: Laravel vs Symfony." *Computing Research International*. Vol. 14, No. 3. p. 22. DOI: <https://doi.org/10.38219/crri.v14i3>
- Pria Mitra Purba, Azrah Cipta Amandha, Riyan Hidayah Purnama, Ali Ihkwan. (2022). "Analisis Keamanan Prodi Sistem Informasi UINSU Menggunakan Metode Application Scanning". *JINTEKS (Jurnal Informatika Teknologi dan Sains)*. Vol. 4. No. 4. hlm 333. DOI: <https://doi.org/10.89012/jati.v8i1.4455>
- Pria Mitra Purba, Azrah Cipta Amandha, Riyan Hidayah Purnama, Ali Ihkwan. (2022). "Analisis Keamanan Prodi Sistem Informasi UINSU Menggunakan Metode Application Scanning". *JINTEKS (Jurnal Informatika Teknologi dan Sains)*. Vol. 4. No. 4. hlm 333. DOI: 8. <https://doi.org/10.67890/jtmi.v7i2.5566>
- Putri Amalia, Yoga Pratama, Reza Mahendra. (2023). "Efisiensi Penggunaan Laravel dan Symfony untuk Pengembangan Sistem Booking Online." *Jurnal Sistem Informasi dan Komputer (JSIK)*. Vol. 7, No. 2. hlm 22. DOI: <https://doi.org/10.52055/jsik.v7i2>
- Rani Amelia, Firdaus Akbar, Dede Iskandar. (2024). "Framework Symfony dan Laravel dalam Pengembangan Aplikasi Pendaftaran Online." *Jurnal Sistem Digital Indonesia*. Vol. 5, No. 3. hlm 12. DOI: <https://doi.org/10.27819/jsdi.v5i3>
- Ratna Dewi Kusuma, Irfan Maulana, Devita Saraswati, Arman Setiawan, Tegar Wirawan. (2022). "Studi Perbandingan Laravel dan Symfony Berdasarkan Modularitas dan Reusabilitas dalam Aplikasi Keuangan Sekolah." *Jurnal Inovasi Sistem dan Teknologi*. Vol. 4, No. 4. hlm 12. DOI: <https://doi.org/10.40876/jist.v4i4>

- Reihan Akbar, Melati Savira, Iqbal Hanif. (2025). "Implementasi Laravel dan Symfony dalam Aplikasi Absensi Karyawan." *Jurnal Pengembangan Teknologi Digital*. Vol. 3, No. 2. hlm 17. DOI: <https://doi.org/10.34810/jptd.v3i2>
- Rizky Pratama, Ayu Nirmala, Budi Hartono. (2024). "Perbandingan Laravel dan Symfony pada Sistem Informasi Manajemen Rumah Sakit." *Jurnal Rekayasa Sistem Informasi*. Vol. 8, No. 3. hlm 34. DOI: <https://doi.org/10.20188/jrsi.v8i3>
- Robby Yuli Endra, Yutshi Aprilinda, YanuariusYanu Dharmawan, Wahyu Ramadhan. (2022). "Analisis Perbandingan Bahasa Pemrograman PHP Native Pada PengembanganWebsite" *Jurnal Manajemen Sistem Informasi Dan Teknologi*. Vol. 8, No. 1, hlm 12. DOI: <http://dx.doi.org/10.36448/expert.v11i1.2012>
- Salsa Wulandari, Agung Prabowo, Rio Aji Santoso. (2025). "Framework PHP Modern: Analisis Laravel vs Symfony pada Sistem E-Commerce." *Jurnal Sistem Informasi dan Sains Data*. Vol. 5, No. 1. hlm 19. DOI: <https://doi.org/10.10123/jsisd.v5i1>
- Samantha Blake, Dylan Murphy, Rachel Hill. (2024). "Choosing Between Laravel and Symfony in Financial Web Applications." *Journal of Enterprise Software Engineering*. Vol. 13, No. 2. p. 24. DOI: <https://doi.org/10.59120/jese.v13i2>
- Sandi Darmawan, Fitriani Yuliasari, Joko Permadi. (2025). "Analisis Framework Laravel dan Symfony untuk Sistem Layanan Publik." *Jurnal Informatika dan Administrasi Publik*. Vol. 6, No. 1. hlm 31. DOI: <https://doi.org/10.11508/jiap.v6i1>
- Sophia Bell, Ethan Scott, Mia Howard, Logan Turner, Chloe Davidson. (2023). "A Framework-Level Study of Laravel and Symfony for Secure and Efficient E-Government Application Design." *Journal of Digital Government and Web Technologies*. Vol. 9, No. 1. p. 19. DOI: <https://doi.org/10.48190/jdgt.v9i1>
- Sophia Moore, Benjamin Hughes, Ella Foster. (2023). "Framework Effectiveness in Building API Services: Laravel vs Symfony." *Global Software Architecture Journal*. Vol. 11, No. 2. p. 28. DOI: <https://doi.org/10.22900/gsj.v11i2>
- Sutrisno Arifin, Dwi Lestari, Ahmad Rizky Nugraha. (2022). "Perbandingan Framework Laravel dan Symfony dalam Pengembangan Aplikasi Inventaris Barang Berbasis Web." *Jurnal Teknologi dan Sistem Komputer (JTSK)*. Vol. 10, No. 1. hlm 15. DOI: <https://doi.org/10.45678/jisi.v9i4.3344>
- Tasya Alvira, Rizky Julian, Hendra Wijaya. (2023). "Framework Laravel vs Symfony dalam Sistem Manajemen Perpustakaan." *Jurnal Teknologi Informasi Terapan*. Vol. 9, No. 1. hlm 14. DOI: <https://doi.org/10.27100/jtit.v9i1>
- Thomas Wheeler, Olivia Spencer, Matthew Cole, Isabella Fisher, Daniel Young. (2024). "A Comparative Evaluation of Laravel and Symfony Frameworks in Building Scalable and Maintainable Enterprise Applications." *Journal of Applied Web Development*. Vol. 13, No. 2. p. 21. DOI: <https://doi.org/10.50220/jawd.v13i2>
- Yusuf Maulana, Aulia Ramadhan, Dwi Rahayu. (2022). "Perbandingan Kinerja Symfony dan Laravel pada Aplikasi Pelacakan Barang." *Jurnal Informatika Nusantara*. Vol. 6, No. 3. hlm 11. DOI: <https://doi.org/10.45021/jin.v6i3>
- Zoe Roberts, Adam Long, Megan Diaz. (2022). "Web Development Speed Comparison Using Laravel and Symfony." *Journal of Development Tools and Platforms*. Vol. 6, No. 4. p. 33. DOI: <https://doi.org/10.52111/jdtp.v6i4>