

Documentation Tool Used: PHPDoc

Purpose

To automatically generate professional, easy-to-read documentation from the comments written in PHP source code.

Why We Are Using It:

- The Game Hall booking system is developed using PHP for backend logic, so PHPDoc is fully compatible.
- It helps convert code comments into structured documentation, making it easy to understand system functions, parameters and outputs.
- Maintains clarity and consistency in code explanation, especially for academic evaluation.
- Makes the project easier to maintain and upgrade in the future, since every function and module is clearly described.
- Generates documentation in HTML format, so it can be viewed easily in browsers.
- Reduces manual effort once comments are added, documentation updates automatically when code changes.

Platform Context

- Platform: Web-based (HTML, CSS, PHP, MySQL)
- Browser Compatibility: Chrome, Edge, Firefox
- Server Environment: XAMPP (Apache + PHP + MySQL)
- Database: MySQL
- Code editor: VS code

Pros & Cons of using PHPdoc:

Pros:

- Automatically generates clean documentation from PHP code comments
- Improves code readability and consistency
- Integrates easily with PHP and XAMPP environment
- Produces professional HTML documentation viewable in any browser
- Helps in debugging and future maintenance.

Cons:

- Requires detailed commenting by the developer
- Works only for PHP backend (not HTML/CSS/JS)
- Doesn't create diagrams or visual models

- Needs command-line setup for use
- Must be updated regularly to stay accurate

Since the project runs on PHP within the XAMPP environment, PHPDoc integrates smoothly with this setup and creates readable documentation for backend code modules such as user authentication, booking management, payment handling and maintenance operations. We are using **Visual Studio Code (VS Code)** as the primary development editor ensures a more efficient and organized workflow. Its built-in features such as syntax highlighting, debugging support and Git integration make development faster and help maintain consistent coding standards across the entire project.