

Advanced PHP

Course Name	Advanced PHP
Course Description	Advanced PHP delivers a thorough overview of PHP development concepts and techniques designed for the professional developer who is looking to solidify and expand his or her knowledge of the PHP language.
Target Population	Developers who have successfully completed the PHP Programming course and want to deepen their knowledge of PHP with the study of advanced topics.
Pre-requisites	Experienced PHP developers
Course Objectives	<p>Upon completion of the course, participants will be able to:</p> <ul style="list-style-type: none"> • Manipulate (send and receive) complex e-mail using PHP • Use PHP to encrypt and decrypt data • Perform advanced database operations • Write scripts ready for internationalization • Use and develop templating systems • Improve the performance of PHP scripts • Understand script security and write safe and secure code
Course Topics	<ul style="list-style-type: none"> • Objects <ul style="list-style-type: none"> ○ Objects in PHP 5 ○ Extending objects ○ Cloning and referencing ○ Interfaces ○ Practical applications ○ Serialization • Security <ul style="list-style-type: none"> ○ Understanding security ○ Implementing security ○ Input validation ○ Securing data ○ SSL/TLS ○ Register globals ○ String and path validation ○ Magic quotes ○ XSS ○ SQL Injection ○ Escaping ○ Error reporting ○ File security ○ Session security ○ Security through obscurity

- **Templating & Internationalization**
 - Anatomy of a templating system
 - Character sets
 - Assembling templates
 - Character normalization
 - Smarty
- **Performance management**
 - Compiler caching
 - Compiler optimizations
 - Apache/PHP integration
 - Web server performance improvements
 - Output buffering
 - Network buffering
 - Content compression
 - Content reduction
 - Profiling and benchmarking
- **Advanced database programming**
 - Advanced MySQL
 - Chained queries
 - Sub-queries
 - Unions
 - Improving query performance
 - Using prepared statements
 - Troubleshooting database problems
- **XML**
 - SAX
 - DOM
 - Simple XML
 - DOM
 - XML parsers
 - Callbacks
 - Error Handling
- **Regular expressions**
 - POSIX vs PCRE
 - Meta characters
 - Quantifiers
 - Escape sequences
 - References and backreferences
 - Optimizations
 - Named patterns
 - Lookarounds, lookaheads and lookbehinds

	<ul style="list-style-type: none">• PHP & E-mail<ul style="list-style-type: none">○ E-mail processing○ PHP and sendmail○ Sender identity○ E-mail on Windows○ Sending and delivering e-mail○ SMTP communication○ Headers○ MIME and HTML mail○ Attachments• Encryption<ul style="list-style-type: none">○ One-way encryption and digesting○ Symmetric encryption○ Encrypted data storage○ Data encoding
Course Duration	3 days (24 hours)