

PHP/MySQL

Chapter 1 – Intro-Open Source

- Introduction
- Linux and Its Development

Chapter 2 – Introduction to LAMP

- Linux Environment
- Web Browser : IE, Mozilla Firefox, Opera
- Web Servers : IIS, Tomcat, PWS and Apache
- Apache
- DBMS : Ms Access, SQL Server, Oracle and MySql
- MySql
- CGI, ASP, JSP, ASPX, Perl, and PHP
- PHP

Chapter 3 – PHP Basics

- Evolution of PHP
- Competence of technologies like JSP,ASP,CGI,ASPX etc
- Concept of 1-tier, 2-tier,3-tier and n-tier application
- Truth of Clint Side Scripting and Server Side Scripting
- Static vs. Dynamic Web Sites
- Why to use PHP?

Chapter 4 – Installing PHP

- Different Environments where PHP can survive
- Installing on Windows (Using XAMPP)
- Installing on Linux (Using LAMP)
- Different Installation settings and configuration
- PHP.ini file configuration
- Running the server
- Understanding Web environment

Chapter 5 – Basic Scripting

- Hello world script
- Running the script
- Understanding the semantics
- Echo and print command
- Embedding PHP in HTML
- Comments in PHP
- Escape sequences

Chapter 6 – PHP Building Blocks

- Data, Information and Information Technology
- Variables

- Variable Naming Conventions
- Data Types
- Typecasting
- Using settype and gettype command
- Dynamic Variables using Referencing
- Operators
- Expressions
- Precedence
- Defining Constants

Chapter 7 – PHP Structures

- Control Structures in PHP
- Conditional Structures
 - Simple Branching
 - Two Branching
 - Multiway Branching
- Iterative Structures
 - While
 - Do - While
 - For
- Break and Continue Statements
- Complex Pattern Printing

Chapter 8 – Function

- Introduction to Procedural Programming
- What is a Function?
- Need of Function?
- Types of Functions
 - In Built
 - User Defined
- Function: Calling
- Function: Defining
- Returning Values
- Playing with References
- Scope and Lifetime
- Making Variables Global
- Static Variables

Chapter 9 – Array

What is an Array?

- Array: Creating it
- Types of Arrays
- Array: Associative Arrays
- Accessing Arrays
- Dynamic Arrays
- Looping with Arrays
- Manipulating Arrays
- Sorting Arrays
- Multidimensional arrays

Chapter 10 – Working with Forms

- Why to use Forms

- Making forms in HTML
- Making forms in PHP
- GET and POST Transactions
- Accessing User Input
- User Redirection

Chapter 11 – Files & Directories

Include Command

- Testing Files
- Creating and Deleting Files
- File modes
- Reading, writing in a file
- Playing with file pointer
- Locking Files
- Working with Directories

Chapter 12 – Dates

- Y2K Problem
- Unix the solution
- Getting and Setting the Date
- Manipulating date

Chapter 13 – OOPS

Origination of OOPs by Simula 67

- What is OOPs?
- Advantages of OOPs
- Classes
- Objects
- Data Abstraction
- Data encapsulation
- Inheritance
- Polymorphism

Chapter 14 – DBMS Basics

- What is DBMS?
- Why Use a DBMS?
- Data Models
- Relational Databases and Tables
- Primary key and Foreign Key
- Normalization
- Introduction to SQL
- DDL
- DML
- TCL

Chapter 15 – Database Integration mySqlI (improved)

- Creating Database

- Connecting to Database Server
- Selecting Database
- Adding Data to Table
- Assessing Data
- Modifying Data

-Importing and Exporting data

Chapter 16 – Cookies

- **What is Cookies**
- **Need of Cookies**
- **Setting of cookies**
- **Reading of cookies**
- **Deleting Cookies**

Chapter 17 – Session Management

- Session Management using cookies
- Using Session Object
- Manipulating session Object
- Encoding and decoding session variables
- Destroying session

Chapter 18 – More Commands

- **Environmental Variables**
- **Fetching document from remote access**
- **Converting IP Address and host name**
- **Sending mail using PHP**

Chapter 19 – Network Programming using PHP

- OSI Model & TCP/IP.
- Port And Sockets

- Protocols
- Port Scanner
- Making Chat Client Server
- NTP Implementation

Chapter 20 – Introduction to APIs

- What are APIs
- What are DLLs
- Integration with PHP
- How To use them
- Working with APIs
- API is more Professional way

Chapter 21 – JavaScript with Validation

- What is client Side Scripting
- Why to use JavaScript
- Variable and Data Type
- Control Structure
- Function
- Array
- Object
- DOM
- Event Model

– HTML5

– CSS3

Chapter 22 – DHTML

- What is clientside Scripting
- Introduction Cascading Style Sheet (CSS)

- Object model collection
- Filters
- Transitions

Chapter 23 – XML

- What is XML
- Advantage of Using XML
- Structure Data
- DTD
- XML Parsers

Chapter 24 – Debugging and Exception Handling

- Types of Error
 - **Syntax Error**
 - **Logical Error**
 - **Runtime Error**
 - **Semantic Error**
- Deference between an Error and Bug
- Methods of Debugging
 - **Using Automated tools**
 - **Manual Debugging**
- Manual Debugging
 - **Using error Messages**
 - **Print Statements**
 - **Generating Logs**
- Automated Debugging
 - **Using Notepad++ and other syntax highlighter**
 - **Viewing Source**

Chapter 25 – CMS (Joomla, Drupal, WordPress)

- What is CMS?
- Working with CMS
- Installation of joomla
- Configuration of joomla
- Working with joomla

Chapter 26 – Threats and Secure Coding Practices

- Get method Leads to XSS
- RFI
- LFI
- SQL Injection Due to Bad Logic

- Advance SQL Injection due to Improper Server Configuration
- Cookies Stealing

Chapter 27- Project Life Cycle