

Course: 305: **Open Source Web Based Programming**

Course Code	305								
Course Title	Open Source Web Based Programming								
Credit	4								
Teaching per Week	4 Hrs.								
Minimum weeks/ Semester	15 (Including Class work, examination, preparation, holidays etc.)								
Review / Revision	June 2021								
Purpose of Course	This course helps students to understand fundamentals of Open Source web based Programming. The course also imparts students learning about Open source web based scripting language PHP and Mysql database. It also includes MVC or Three tier architecture of web based programming.								
Course Objective	Student will learn fundamentals and advance topics of Open source Web technology								
Course Outcome	<p>CO1 : Explain students the fundamental as well as Advanced aspects of the Open Source Web based Technology.</p> <p>CO2 : Train students about react JS and difference between React JS and React Native.</p> <p>CO3 : Train students to understand MVC structure and it's benefits.</p> <p>CO4 : Explain and train students to deal with possible problem while developing websites and it's solution.</p> <p>CO5 : Expose the students with the analysis and development process of Websites.</p> <p>CO6 : After studying the course, students will be able to understand how Open source web technology works. They will also be able to create database driven Professional Websites.</p>								
Mapping between COs with PSOs		PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
	CO1								
	CO2								
	CO3								
	CO4								
	CO5								
	CO6								
Pre-requisite	Knowledge of HTML and SQL								
Course Content	<p>Unit 1 : Introduction to Open source Web based Programming</p> <p>1.1 Introduction to PHP & MySQL</p> <p>1.2 Installation of PHP and MySQL</p> <p>1.3 Language Characteristics & Features</p> <p>1.4 Operators and Variables, Control Structures, Looping and Error handling</p> <p>1.5 PHP functions</p> <p>1.5.1 String Functions</p> <p>1.5.2 Array Functions</p> <p>1.5.3 Mathematical Functions</p> <p>1.5.4 Graphics Library (GD Support)</p> <p>1.5.6 Date and Time Functions</p> <p>1.5.7 Misc. Function</p> <p>1.6 State management Techniques</p> <p>1.7 Object Oriented Features of PHP</p> <p>1.7.1 Classes and Objects</p> <p>1.7.2 Use of constructors</p> <p>1.7.3 Serialization</p> <p>1.7.4 Inheritance</p> <p>Unit 2 : MySQL database server</p>								

	<p>2.1 Configuring the MySQL Server</p> <p>2.2 MySQL Tables, Displaying MySQL Database ,Adding and removing user access</p> <p>2.3 Database connection and data processing functions</p> <p>Unit 3 : Advance PHP</p> <p>3.1 Ajax Basics</p> <p>3.1.1 HTTP Request and Response Fundamentals</p> <p>3.1.2 The XMLHttpRequest Object XMLHttpRequest Methods</p> <p>3.1.3 XMLHttpRequest Properties</p> <p>3.1.4 Cross-Browser Usage Sending a Request to the Server</p> <p>3.1.5 PHP and Ajax Client-Driven Communication</p> <p>3.1.6 Server-Side Processing Expanding and Contracting Content</p> <p>3.1.7 Form Validation</p> <p>3.1.8 Ajax-Based Database Querying</p> <p>3.2 XML</p> <p>3.3 Web services</p> <p>Unit 4 : MVC</p> <p>4.1 Introduction to MVC</p> <p>4.2 Introduction to Laravel, Architecture Concepts</p> <p>4.3 Routing</p> <p>4.4 Middleware</p> <p>4.5 Controllers</p> <p>4.6 Request & Response</p> <p>4.7 View</p> <p>4.8 URL generation</p> <p>4.9 Validation</p> <p>4.10 Session & Cookie</p> <p>4.11 Form & File uploading</p> <p>4.12 Error Handling</p> <p>4.13 Security</p> <p>4.14 Database</p> <p>Unit 5 : Advance Concepts of MVC</p> <p>5.1 Blade Templates</p> <p>5.2 Mail</p> <p>5.3 Authentication</p> <p>5.4 Authorization</p> <p>5.5 Encryption</p>
Reference Books	<p>1. Beginning PHP, Apache, MySQL Web Development - Elizabeth Naramore, Jason Gerner, Yann Le Scouarnec, Jeremy Stolz, Michael K. Glass, Gary Mailer – Wrox Publication</p> <p>2. Professional PHP Programming - Jesus Castagnetto ,Wrox Press Ltd</p> <p>3. Beginning PHP and MySQL: From Novice to Professional - W. Jason Gilmore, Apress</p> <p>4. Php: The Complete Reference - Steven Holzner, Tata Mcgraw Hill Education Private Limited</p> <p>5. AJAX and PHP: Building Responsive Web Applications - Bogdan Brinzarea, CristianDarie packtpub</p> <p>6. Php manual – www. Php.com</p> <p>7. Beginning Laravel Build Websites with Laravel 5.8 - Sanjib Sinha · 2019 - Apress</p> <p>8. Laravel The Ultimate Beginner's Guide to Learn Laravel Step by Step, 2nd Edition - Mem Lnc, Rufus Stewart</p>
Teaching Methodology	Class work, Discussion, Self-Study, Seminars and/or Assignment

Evaluation Method	30% Internal assessment is based on class attendance, participation, class test, quiz, assignment, seminar, internal examination etc. 70% assessment is based on semester end University External examination
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