

Subject Code: 2CS2010307	Subject Title: Advanced Web Technologies (Elective-IV)
Pre-requisite:	Programming Skills like PHP, HTML, CSS, Java Script etc.

Course Objective:

The objectives of the course are to:

- To understand the LARAVEL framework.
- To understand how to Implement LARAVEL
- To understand how to design and develop responsive web application using LARAVEL

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture	Tutorial	Practical	Credit	Theory		Practical		Total
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	-	3	6	60	40	30	20	150

Subject Contents			
Sr. No	Topic	Total Hours	Weight (%)
1	Object Oriented PHP Building a Class and object, Constructors and Destructors, Working with Properties and Functions, Private, Protected, Public modifiers, Inheritance, Interfaces, Abstract class, Static method, Static property, Namespaces. CRUD (Create/Read/Delete/Update)using Class and Object	4	10
2	Introduction of Laravel What is framework, Why Frameworks are important?, Benefits of Framework, Frameworks Available in PHP, About Laravel framework, Features of Laravel framework What is Package/Dependency Manager, Introduction to Composer, Download and Installation of composer, Basic Commands of Composer, Install and Remove 3rd Party Libraries using composer, Laravel Installation using composer command, An Introduction to Artisan Tool, Basic Artisan commands, Writing custom artisan commands, calling artisan commands in Normal code, database creation, Tinker	10	25
3	Laravel Basic What is MVC? Server requirements, Installing Framework, Configuration, Creating The Folder Structure, Request Life Cycle. Routing: Basic Routing, Route Parameters, Redirect Route, Route filters, Route groups, Controller: Creating custom controller, Controller Middleware, Resource controller, Loading The Controller From The URL. View: Understanding Views, Transferring Data to Views, Sharing Data with all Views, Views using method. Model: Create model, Creating user control, Creating the model method. Use Bootstrap File, Mapping Methods & Parameters	10	25
4	Blade Template in Laravel Introduction to Blade Fundamentals, PHP Outputs, Conditional and Looping Structures, Template Inheritance, Custom Blade Directives, Defining a master layout Custom & Inbuilt Form Validation Validation Fundamentals: Writing the validation logic, Displaying the validation Errors. Form Request Validation: Creating Form Requests, Authorizing Form Requests, Customizing the Error Messages. Custom Validation Methods	8	20

5	Configure database in laravel Introduction, Manage Database Connection, Query Builder, Migration Eloquent ORM Introduction to ORM Relationships : One to One, One to Many, Many to Many CRUD OPERATION USING ORM(Create, Read, Update, Delete)	8	20
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Course Outcome:

At the end of this course, the student would be able

- The development of the LARAVEL project aims to awaken students About industry-based processes and functions. As a result, the project must be met Industry standard.
- You don't have to create a project report for your students, but it's only a copy. You must view the application for the reviewer to get the details of the application. Students can be evaluated on the basis of projects and assessment criteria.

List of References:

- Fernando Monteiro, "Hands-On Full-Stack Web Development with Angular 6 and Laravel 5 ", Packt Publishing, ISBN 9781788833912
- Martin Bean, "Laravel 5 Essentials", Packet Publishing, ISBN 978-1-78528-301-7
- Web Technologies: HTML, CSS3, JavaScript, JQuery, Ajax, PHP,XML, MVC and LARAVEL), Black Book, 2018, Dreamtech , ISBN 9789386052490
- Matt Stauffer, "LARAVEL Up and Running, A framework for building modern PHP Apps", 1st Edition, O'REILLY (ISBN: 978-1-491-93608-5)

List of Experiments:

Note: The experiment list provided beneath is for reference only. The course teacher may Change/formulate it as per his/her methodology and requirement.

1. Write a PHP script that implement the concept of constructor and descructor.
2. Write a program to get value from database into dropdown using oop php mysql
3. Write a program to Retrieving Data from MySQL using class and object.
4. Add, Update and delete record from mySQL using class and object
5. Create Login and Registration Form in PHP Using OOP
6. Write a program which autoload php function and classes using composer.
7. Write a program to install, update and delete the dependency using composer.
8. Write a program which demonstrates the use of pdf library using composer.
9. Write a program to Creating controller, view and define route.php using laravel.
10. Write a program which demonstrates the use of Resource controller using laravel.
11. Write a program to create a Model and controller to fetch record from database using laravel.
12. Write a program to pass data from controller to view using laravel.
13. Write a program to pass data from route to view.
14. Write a program to create layout of any website using blade templating.
15. Write a program which demonstrates the custome validation message using laravel.
16. Write a program to create Registration and login form using laravel.
17. Write a program to implement online shopping which performs the following tasks using laravel
 - Manages user profile
 - Manages products
 - Manages categories