

Branch Name:	IMCA
Program Code:	CS301
Course Name:	Application Development using LARAVEL
Course Code:	1CS3010502T
Pre-requisite Course:	Programming Skills like PHP, HTML, CSS, JavaScript etc.

Course Objectives:

1. To understand the LARAVEL framework.
2. To understand the usefulness of Template Inheritance.
3. To understand how to Implement LARAVEL
4. To understand how to design and develop responsive web application using LARAVEL
5. To be able to design MVC based LARAVEL Application.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				Total (Marks)
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-	-	4	60	40	-	-	100

Subject Contents:

Sr. No	Topic	Total Hours	Weightage (%)
1	<p>Dependency Manager: Package, Dependency Manager, Introduction to Composer, Download and Installation of composer, Basic Commands of Composer, Install and Remove 3rd Party Libraries using composer, create composer.json, Update and roll back composer, Install/Uninstall/Update package, Laravel Installation using composer command, An Introduction to Artisan Tool, Basic Artisan commands, Writing custom artisan commands, Auto loading</p> <p>Framework: Introduction of framework, Why Frameworks are important? Benefits of Framework, Frameworks Available in PHP, About Laravel framework, Features of Laravel framework, What is MVC?</p>	10	25
2	<p>Introduction of LARAVEL: Introduction to LARAVEL, Features of Laravel, Laravel Installation, Application (Directory) Structure, Laravel Configuration (Basic configuration, Environmental configuration and database configuration)</p> <p>Routing: Basic Routing (Redirect routes and view routes), Route Parameters (Required parameters, Optional Parameters, Regular expression constraints), Redirect Route, Named routes, Route groups (middleware controllers etc), Fallback routes.</p> <p>View: Understanding Views, Transferring Data to Views, Sharing Data with all Views, Views using method.</p>	10	25
3	<p>Blade Template: Introduction of Blade Templets, PHP Outputs, Comments, Conditional & looping Directives, Authentication Directives, Environment Directives, include directives, each directives, Component, Passing & defining Data to component, Component attribute and method, Defining and using Slot, Layout using component and Template Inheritance, Custom Blade Directives, Defining a master layout</p> <p>Controller: Introduction of Controller, Creating custom controller, Resource controller, loading the Controller from the URL.</p> <p>Middleware:</p>	10	25

	Define middleware, Register middleware, Middleware parameters, Global middleware, Assign middleware to routes, Middleware groups.		
4	<p>Custom & Inbuilt validation Method: Create form with @csrf and accessing the form data, Validate Method, Validation rules, Validation error, Error directives, Custom error message</p> <p>Migration: How to generate migration, Migration class, How to create a table using a migration, Running migration, Rolling back migration</p> <p>Configure database in LARAVEL: Introduction, Manage Database Connection, Query Builder</p> <p>Eloquent ORM: What is model?, Introduction to ORM , Generating Model class, Retrieving or creating models, Deleting models, Building query, CRUD OPERATION USING ORM(Create, Read, Update, Delete)</p>	10	25

Text Books:

LARAVEL Introduction The PHP Framework For Web Artisans: Laravel For Beginners
Beginning PHP, Apache, MySQL web development
Complete Ref. PHP
Laravel (8) PHP Framework Handbook Start From Zero Knowledge Author David S. Thomas

Reference Books:

- Fernando Monteiro, "Hands-On Full-Stack Web Development with Angular 6 and Laravel 5 ", Packet 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 Open Source Software/learning website:

<https://www.tutorialspoint.com/laravel/index.htm>
<https://www.guru99.com/laravel-tutorial.html>
<https://www.phptpoint.com/laravel-introduction/>
<https://www.coursera.org/specializations/web-design>

Course Learning Outcomes (CLO): On completion of this course, the students will be able to

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand Basic fundamental of Dependency manager and framework.	2 Understanding
CLO2	Student will able to develop web applications using laravel with MVC pattern	2 Understanding, 6 Creating
CLO3	Implement the concept and all command of composers	3 Applying,
CLO4	Appreciate the importance of MVC architecture pattern in development of web applications.	6 Creating
CLO5	Understand the concept of blade template	2 Understanding,
CLO6	Understand the concept of migration, eloquent ORM and authentication	2 Understanding, 4 Analyze

Mapping of CLOs with POs & PSOs

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes (PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CLO1		H	M		M		L		M		M	L		H
CLO2	L	L	H		M		L		L		M	L	M	L
CLO3			L		M		M	M			M	M	H	L
CLO4		H	M		M		L		M		M	L	H	M
CLO5	L	M	H		L		M		L		L	M	L	M
CLO6	M	L	M		M		M		L		L	M	M	L

H:High, M:Medium, L:Low