

## INT221:MVC PROGRAMMING

**Course Outcomes:** Through this course students should be able to

- CO1 :: Understand the directory structure and request response life cycle in Laravel
- CO2 :: Develop flexible, user-friendly and clean web applications
- CO3 :: Demonstrate well-organized, reusable and maintainable code using views and controllers
- CO4 :: Use forms and gather and validate inputs
- CO5 :: Make cookies and sessions to store users information across the requests
- CO6 :: Construct a database and use appropriate SQL statements to create tables and store data.

<b>Unit I</b>	<b>Introduction to MVC Laravel Framework :</b> Overview of Laravel, Laravel Features, Laravel Installation and Composer, Laravel Application Structure, Laravel Configuration- Environmental Configuration, Database Configuration
<b>Unit II</b>	<b>Request, Routing &amp; Responses :</b> Laravel Request Lifecycle, Basic Routing, Routing Parameters, Understanding Views in Laravel, Passing Data to Views, Sharing Data with all Views, Laravel Response- Attaching Headers, Attaching Cookies, JSON Response, Laravel Redirections, Redirecting to Named Routes, Redirecting to Controller Actions
<b>Unit III</b>	<b>Controllers, Blade and Advanced Routing :</b> Basic Controllers- Creating Controllers, Controller Routing, Controller Middleware, Restful Resource Controllers, Blade- Creating Templates, PHP Output, Controller Structures, Templates Inheritance, Advanced Routing- Named Routes, Secure Routes, Parameter Constraints, Route Groups, Route Prefixing, Domain Routing, URL Generation- The current URL, Generating Framework URLs, Asset URLs, Generation Shortcuts
<b>Unit IV</b>	<b>URL Generation, Request Data and Emails :</b> Request Data-Retrieval, Old Input, Uploaded Files, Cookies, Sending Emails <b>Laravel Localization and Sessions :</b> Laravel Localization and Examples, Laravel Session- Accessing Session Data, Storing Session Data, Deleting Session Data
<b>Unit V</b>	<b>Laravel Forms and Validation :</b> Opening Forms, Form Fields, Form Buttons, Form Macro, Form Security, Laravel Validation-Simple Validation, Validation Rules, Error Messages, Custom Validation Rules, Custom Validation Messages
<b>Unit VI</b>	<b>Databases, Schema Builder and Migrations :</b> Databases-Abstraction, Configuration, Preparing, Schema Builder-Creating Tables, Column Types, Special Column Types, Column Modifiers, Updating Tables, Dropping Tables, Schema Tricks, Migrations- Basic Concept, Creating Migrations, Running Migrations, Rolling Back, Migration tricks

**Text Books:** 1. LARAVEL 5 ESSENTIALS by MARTIN BEAN, PACKT PUBLISHING

**References** 1. BEGINNING LARAVEL by SINHA, SANJIB, APRESS

### **List of practicals**

1. Installation of Laravel and Composer using command prompt
2. Implement sharing of data using views
3. Use route parameters and parameter constraints
4. Implement redirections using routes and controllers
5. Create and register middlewares in Laravel
6. Create blade templates, controller structures and template inheritance in Laravel
7. Use restful resource controllers to perform CRUD operations
8. Working with advanced routing and URL methods in Laravel
9. Send emails and upload files in Laravel
10. Access, store and delete cookie and session data in Laravel.
11. Create form and implement simple validation, error messages, custom validation rules and custom validation messages in Laravel.
12. Connect to database in Laravel
13. Create, modify, update tables in Laravel
14. Manage database with migrations