PHP Lectureflow

Module-1) SE - Overview of IT Industry	8
• Introduction of students • Career in IT • Understanding Student Login of TOPS ERP • Using Lab • What is Program • What is programming? • Types of Programming Language • World Wide Web • How Internet Works • Network Layers on Client and Server • Client And Servers • Types of Internet Connections • Protocols • Application Security • Software Applications and its types • Software Architecture • Layers in Software Architecture • Software Environments • Types of Programming Languages • Source Code • Github and introductions • Student Account in Github • Types of Software • Introduction of Software • GIT and GITHUB Training • Application software • Software development process • Software Requirement • Software Analysis • System Design • Software Testing • Maintenance • Development • Web Application • Designing • moble application • DFD • Desktop Application • Flow Chart	
Module-2) SE- HTML and CSS	6

- What is Internet, HTTP/HTTPS, WWW, Domain name and Top Domain name
- SEO, What is HTML, What is Text Editor, Web Browser, Downloading Text Editor , HTML Structure, First Program in HTML
- 1) HTML Introduction 2) HTML Getting Started 3) HTML Elements 4) HTML Attributes 5) HTML Basic Tags
- 1) HTML Doctypes 2) HTML Layout 3) HTML Head 4) HTML Meta 5) HTML Scripts
- Web Programming Design web pages with HTML structure
- Practical Examples: 1) Create any simple web page to display your name. 2) Importance of meta tag and Doctypes
- Tags and self Closing Tags, Basic Tag , Attribute and Events, Marquee Tag
- HTML - Meta Tags, HTML - Comments, HTML - Images, HTML - Tables, HTML - Lists, HTML - Text Links, HTML - Image Links
- HTML basic tags-P,BR,MARQUEE etc
- HTML Headings HTML Paragraphs HTML Links HTML Text Formatting HTML Styles HTML Images
- Anchor Tag, Img Tag, Image Mapping
- List Tag, Tables, Forms
- PRactical Examples: 1) Create simple Doc and display your name using different heading tag 2) Create link for open google. 3) Create document using all text formatting tags
- Form tags with input tag
- Practical Examples: 1) Create simple table 2) Create time table for your school 3) Create table with colspanrowspan example 4) Create invoice using table 5) Create hotel menu. 6) Create index page for your book. 7) Create list with different categories.
- PRactical Examples: Create registration form with all fields and validation
- 1) CSS 2) In-line CSS Internal Style External Style Sheet @import Style Sheet 3) CSS Class CSS ID
- What is CSS How to Implement CSS Class and ID Width and Height Css Unit Box Model (Margin,padding,Border) and create basic template design
- CSS Selectors , Pseudo Classes and Elements , Float and Clear and Alignment , Font Styling , Opacity and Visibility , Line Height
- Practical example : Create page with difference color text
- 1) CSS Text 2)CSS Font 3) CSS Background 4) CSS Links 5) CSS Lists 6) CSS Display 7) CSS Visibility

Module-3) SE - Fundamentals of Programming	**8**

- Basic Syntax
- Data Structures
- Variables
- Operators
- Control and looping Structures
- functions
- Arrays and strings
- Introduction to C
- What is Language?
- What is programming and program?
- Fundamental of Algorithms and Flowchart
- Real world problems - get solution via programs
- Practical Example: 1. Write a Flow chart of real problems - Days to month conversion system.
- Data Types and Variables - Data Types, Void Data Types,
- History of C
- Compiler and interpreter
- environment setup
- Type Modifiers,
- Basic Structure of C Programs
- Importance of C
- Fundamentals of C
- Difference between turbo C and Dev C/C++
- Practical Example : 1. Write a program of scanf 2. Write a program to demonstrate escape sequence 3. Write a program to demonstrate comments
- Comments
- Keywords
- Escape Sequence
- Practical Example: 1. Write a program to print (Hello World). 2. Write a program to print the sum of two numbers. 3. Write a program to exchange values of two variables using the 3rd variable. 4. Write a program to convert days into years and years into days.

| **Module-4) SE - OOP Concept** | **8** |

- Procedure Oriented And object Oriented Programming
- Basic Concepts of OOP
- OOP - Objects and Classes
- Constructors and Destructors
- Data Abstraction and Encapsulation
- inheritance
- Encapsulation
- Types of polymorphism
- Dynamic Binding
- Array
- Types of constructors
- Compile time
- Types of Array
- Class and arrays : 1) Array within class 2) Array of objects
- Run time
- String
- Practical Example: 1. Write a program to print the score card of two students using an array of objects.
- Difference between constructor and destructor
- Practical Example: 1. Write a program to demonstrate difference between constructor and destructor 2. Write a program to demonstrate copy constructor
- Abstract class
- Practical Examples: 1. Write a program to check whether entered number is even or not using if..else statement in C++ 2. Write a menu - driven program to calculate the area of the circle,rectangle and triangle. 3. Write a program to calculate factorial of given number using for loop 4. Write a program to print the fibonacci series using while loop 5. Write a program to check whether the given number is palindrome using do..while loop. 6. Write a program to demonstrate jumping statements
- Practical Example: 4. Write a program to demonstrate pass object to a function 5. Write a program to demonstrate return object from function
- Class and pointer
- Aggregation
- Class and objects
- Practical Example: 1. Write a program to demonstrate pointer with class 2. Write a program to demonstrate dynamic object using new keyword
- Access modifiers
- Practical Example: 1. Write a program to demonstrate function overloading with different types of arguments 2. Write a program to demonstrate function overloading with default arguments 3. Write a program to show the constructor function overloading
- Member Function
- Types of inheritance 1 - Single level 2 - Multi-level 3 - Multiple 4- Hierarchical 5- Hybrid
- Comparisons of class and object
- Practical Example : Write a program to implement single level inheritance 2. Write a program to demonstrate single level inheritance in private mode 3. Write a program to demonstrate the ambiguity in single level inheritance 4. Write a program to demonstrate multilevel inheritance 5. Write a program to demonstrate multiple inheritance 6. Write a program to demonstrate the hierarchical inheritance 7. Write a program to demonstrate the hybrid inheritance
- Namespace
- Static Keyword
- Practical Example: 1) Write a program to demonstrate constructor invocation in inheritance
- Scope resolution operator

| Module-5) SE - Database - Full stack and Back end | 9 |

- What is Database
- DBMS and RDBMS
- Types of Database
- Normalization
- algebra
- Primary key
- foreign key
- unique key
- Database Programming Language SQL
- SQL Statements Types
- DDL
- DML
- TCL
- TQL
- Database backup and Restore
- What are Joins
- Types of Joins
- Function
- Procedure
- Trigger
- Curser
- Transaction concepts
- properties of transactions
- rollback and commit savepoint
- ER database schema

Module 6) WD - HTML - Full stack and Back end	10

- Student Intro , Career Center Login ,What is Internet, HTTP/HTTPS, WWW, Domain name and Top Domain name
- SEO, What is HTML, What is Text Editor, Web Browser, Downloading Text Editor , HTML Structure, First Program in HTML
- 1) HTML Introduction 2) HTML Getting Started 3) HTML Elements 4) HTML Attributes 5) HTML Basic Tags
- 1) HTML Doctypes 2) HTML Layout 3) HTML Head 4) HTML Meta 5) HTML Scripts
- Practical Examples: 1) Create any simple web page to display your name. 2) Importance of meta tag and Doctypes
- Tags and self Closing Tags, Basic Tag , Attribute and Events, Marquee Tag
- HTML - Meta Tags, HTML - Comments, HTML - Images, HTML - Tables, HTML - Lists, HTML - Text Links, HTML - Image Links
- HTML Headings HTML Paragraphs HTML Links HTML Text Formatting HTML Styles HTML Images
- HTML - Frames, HTML - Iframes, HTML - Blocks, HTML - Backgrounds, HTML - Colors, HTML - Fonts
- Anchor Tag, Img Tag, Image Mapping
- HTML - Fonts, HTML - Forms, HTML - Embed Multimedia ,HTML - Marquees, HTML - Header, HTML - Style Sheet, HTML - Javascript ,HTML - Layouts
- List Tag, Tables, Forms
- HTML - Tags Reference, HTML - Attributes Reference, HTML - Events Reference, HTML - Fonts Reference, HTML - ASCII Codes, ASCII Table, Lookup, HTML - Color Names, HTML - Entities, HTML - Fonts, Ref HTML - Events, Ref MIME Media Types, HTML - URL Encoding Language, ISO Codes HTML - Character Encodings, HTML - Deprecated Tags
- PRactical Examples: 1) Create simple Doc and display your name using different heading tag 2) Create link for open google. 3) Create document using all text formatting tags
- HTML online editor
- HTML Tables HTML Lists HTML Forms HTML Iframes
- Practical Examples: 1) Create simple table 2) Create time table for your school 3) Create table with colspanrowspan example 4) Create invoice using table 5) Create hotel menu. 6) Create index page for your book. 7) Create list with different categories.
- PRactical Examples: Create registration form with all fields and validation

Module 7) WD - CSS and CSS 3 - Full stack and Back end	**16**

- 1) CSS 2) In-line CSS Internal Style External Style Sheet @import Style Sheet 3) CSS Class CSS ID
- What is CSS How to Implement CSS Class and ID Width and Height Css Unit Box Model (Margin,padding,Border) and create basic template design
- Practical example : Create page with difference color text
- CSS Selectors , Pseudo Classes and Elements , Float and Clear and Alignment , Font Styling , Opacity and Visibility , Line Height
- 1) CSS Text 2)CSS Font 3) CSS Background 4) CSS Links 5) CSS Lists 6) CSS Display 7) CSS Visibility
- Creating Header of Website , Outline , Background , Counter increment , Counter reset ,Cursor , Overflow
- PRactical Example : Create layout for your project
- Position , Creating Submenu , Border Radius, Transform , Animation , Font Awesome Icons
- 1) CSS Layout Model 2) CSS Border 3) CSS Margin 4) CSS Padding 5) CSS Outline
- Font Family Through Google Font , import fontface rule ,FlexBox
- 1) CSS Float 2) CSS Align 3) CSS Position 4) CSS Element Size 5) CSS Layer
- Practical Example : Create image gallery
- 1) CSS Pseudo Class Selector 2) CSS Pseudo Element Selector
- CSS Properties 1) Background, 2) border 3) bottom 4) caption-side 5) clear 6) clip 7) color 8) content
- Practical Example: Create Menu with logo at left side and contact info at right side using clear effect
- 1) counter-increment 2) counter-reset 3) cursor 4) direction 5) display 6) empty-cells
- Practical Example: 1) Create submenu list using counter
- 1) float 2) font 3) height 4) left 5) letter-spacing 6) line [height, style, style-7) image, style-position, 8) style-type] 9) margin 10) outline 11) overflow 12) padding
- 1) page-break 2) position 3) quotes 4) right 5) table-layout 6) text 7) top 8) vertical-align 9) visibility 10) white-space 11) width 12) word-spacing 13) z-index
- Practical Example: wireframe layout for your template using div
- Media Query (For Responsive Website) , Creating a Responsive Website
- Validate a Website, Hosting a website with free domain name, Column , Clippath , Gradient Color , Filter, Border Image

Module 8) Website Designing - HTML5 - Full stack and Back end	5

- HTML5 Tags, HTML5 Input and Attribute
- Audio and Video, Semantic Element in HTML5
- Canvas, Svg
- Display Grid

Module 12)PHP - HTML, CSS, SQLite	10

- HTML-(1 session)Basic HTML like What is Tags attribute property Form Tag HTML-HTML5 tags
- CSS (1) • Selectors • Margin-Padding-display property • Create login-registration page
- Bootstrap (2) Grid • Rows-Cols • Forms-Cards
- SQL-(MySQLi)(4)
- SQL Queries
- Normalization
- Joins
- Indexer
- Practical Examples 1) MySQL data types 2)Create Multiple Tables and perform the queries using Select, Update, Delete, Insert Where, Like, Group By, Having, Limit, Offset, Sub Query and Or, Not, In 3) Function and procedure 4) Trigger 5) Views 6) Primary and auto increment

Module 13) PHP - Core PHP	10

- HTTP Protocol
- PHP syntax
- PHP variable
- Super Global Variables
- Practical Example: 1) Create Multiple Tables and perform the queries using Select,Update,Delete,Insert Where,Like,Group By,Having,Limit,Offset,Sub QueryAnd ,Or,Not,In
- Conditions Events and flows
- If condition
- If else if
- Practical Example : 1)Make Simple Calculator 2) Find the current day and if it is Sunday than print happy Sunday
- Practical Example: 1) Restaurant food Category Program using Switch case Display Which Category and dish user selected. 2) Using Ternary display age if it is greater than 18 3)Display Name Of the color which user selected
- Do While Loop
- For each Loop
- For loop
- Practical Example : 1) Create a script that displays 1-2-3-4-5-6-7-8-9-10 on one line. 2) Create a script using a for loop to add all the integers between 0 and 30 and display the total. 3)Write a PHP script using nested for loop that creates a chess board 4)All Patterns
- Array Function
- Date-time function
- Header function
- Include require
- Practical Example: 1) Perform all the function. 2)In user define function: 3)Create calculator 4)Find factorial using recursion 5)Reverse string without function 6) Download file on button click
- PHP array
- PHP expression
- PHP function
- PHP operations
- String Function
- PHP String
- Practical Example: 1)Display the value of the array 2) To Find the number of odd and even element in array. 3) Create associative array for user detail and display the user detail. 4)shifted all the zero in bottom up of the array

Module 14) PHP- Advance PHP	20

- OOPs Concepts
- Class
- Object
- Extends
- Overloading
- Abstraction interface
- Constructor
- Destructor
- Magic Methods
- Scope Resolution
- Traits
- Visibility
- Type hinting
- Final keyword
- Email security function
- File handling
- Handling emails
- MVC Architecture
- Practical Example: Implementation of all the Oops Concept
- Connection with MySQL database
- SQL injection
- Practical : 1) Take Project Definition 2) Exception handling with try catch for database connection and all queries. 3) Server- side Validation while Registration using Regular expressions. 4) Send mail while registration
- Session and cookies
- File upload
- PHP with MVC Architecture
- Insert, Update, Delete MVC
- Practical Example: 1) Apply session cookies concepts 2) File uploading and downloading 3) Bootstrap data-table Pagination
- Java script
- JQuery
- JQuery Events
- JQuery Validation
- Practical Example: 1)Alert, Prompt, Confirm 2)Create calculator 3)Create slideshow 4)Validation using JavaScript 5)Hide show using jQuery
- PHP and Ajax
- AJAX (crud)
- Regular Expression
- Practical Example :1) Event Examples (Onblur,onkeypres) 2)Regular expression 3) Create dependent drop down Pagination using ajax jQuery in MVC Project Insert Files using Ajax

Module 15) PHP - Web services, API, Extensions - Industry	4

- Payment Gateway Integration
- -> Create API With Header -> API with Image Uploading
- Practical Example: Payment Gateway Implement on MVC Project
- -> SOAP and REST AP, Create API for insert, update and delete
- Product Catalog
- Shopping Cart
- Web Services
- Practical Example: Create Web Services for MVC Project
- Integration of API in Project

Module - 17) PHP - Introduction of Laravel PHP Framework - Industry	7

- Installing Laravel
- Artisan CLI (command-line interface)
- Laravel Directory Structure
- Configuring a new Laravel project
- Artisan command to generate boilerplate code for a controller
- Basics of laravel:----> Routing
- Controller
- Middleware
- Request
- Response
- HTML Template to Laravel Blade Template
- HTML Template to Laravel Blade Template:-----> Template inheritance
- Master layout
- Extending the master layout
- Displaying variables
- Blade conditional statements
- Blade Loops
- Executing PHP functions in blade
- Displaying Your Views
- Creating and using a basic views
- Loading a view into another view/nested views
- Adding assets
- Integrating with Bootstrap

Module - 19) PHP - Laravel - Using Forms and Gathering Input - Industry	**8**

- Creating contact us form
- Validating user input
- Sending email
- Creating a file uploader
- Validating a file uploader
- Creating a custom error message
- Laravel Collective:----> Installation
- Opening A Form
- Form Model Binding
- Form controls
- Custom macros

Module - 20) PHP - Laravel - Using Controllers and Routes for URLs and APIs - Industry	**5**

- Introduction
- Creating a basic controller
- Creating a route using a closure
- Making the controller RESTful
- Using route groups
- Building a RESTful API with routes
- Rest API with Passport Authentication
- Event
- Mail
- Queue
- Task Scheduling
- Eloquent ORM and Models:----> Naming conventions
- Table name and primary keys
- Timestamps
- Eloquent ORM INSERT, READ, UPDATE, DELETE
- Relationship
- Using models in controllers
- Displaying data from models in views
- Creating and Using Composer Packages :----> Downloading and installing packages
- Using a basic Shopping Cart package in our project
- socialite
- Using Ajax and jQuery:---> Getting data from another page
- Setting up a controller to return JSON data
- Creating a Jquery, AJAX comment system
- Security & Session:---> Using Security
- Sessions Effective

Module - 21) PHP - Laravel - Migrations - Industry	2

- Introduction
- Requirements for running migrations
- Artisan migration command
- Migration structure
- How to create a table using a migration
- Laravel migration rollback
- Database Seeding
- Migrations for our project database
- Pagination