

Web Full stack Bootcamp

Delivery Plan @ 2021

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Delivery Plan

<u>Content</u>	<u>Due in Days</u>	
<u>1st Stage : course skills</u>		
Introduction and Review Tools will be used in Bootcamp .	1 Day	3 hours
Version control management (git and github)	3 Days	9 hours
Web introduction and overview for web	1 Days	6 hours
<u>2nd Stage : Front End programming</u>		
Html5	1 Days	3 hours
CSS3 basics and fundamentals	2 Days	6 hours
JavaScript basics and fundamentals	2 Days	6 hours
Advance css3 and JavaScript with html5	6 Days	18 hours
Bootstrap 5 as framework for CSS	2 Day	6 hours
jQuery as library for Java Script	2 Day	6 hours
first Exam	1 Day	3 hours
Three Front end projects individual (one of them pure CSS and JavaScript and the second and thired with bootstrap and jQuery)	Through 2nd stage	
Daily challenges and task	Through 2nd stage	
<u>3rd Stage: Database</u>		
Database fundamentals and analysis concepts	1 Day	3 hours
Relational Database and queries	2 Days	6 hours

NoSQL database and queries	2 Days	6 hours
Second exam and Database diagram project with queries	1 Day	3 hours
Daily challenges and task	Through 2nd st	
<u>4rd Stage: BackEnd (node Js)</u>		
Introduction to node js and setup environment	1 Days	3 hours
Node js programming language	10 Days	30 hours
Third exam and node js project	1 Day	<u>3 hours</u>
<u>4th Stage: Back End PHP</u>		
OOP fundamentals in PHP and most important Design Pattern	5 days	15 hours.
Php programming language basics to advanced	12 Days	36 hours
Laravel framework for PHP	11 Days	33 hours
Total	66 work Days	204 hours as total

Course Details

Front End Programming Course Contents

No.	Lecture Subjects :
<u>01</u>	<u>Lecture 1 : HTMLS</u> <ul style="list-style-type: none"> - Quick review for HTML - Head vs body page parts - New tags in HTML 5 - Inline and block tags
<u>02</u>	<u>Lecture 2 CSS</u> <ul style="list-style-type: none"> - How to use CSS - Link html with CSS - Override css attributes - CSS box model - Design a portfolio page using html & CSS
<u>03</u>	<u>Lecture 3 CSS</u> <ul style="list-style-type: none"> - media query and responsive media query and responsive design principles - CSS animation - Compatibility with different browsers - Re design a portfolio page with responsive design
<u>04</u>	<u>Lecture 4 : JavaScript</u> <ul style="list-style-type: none"> - JavaScript overview - Variables and functions - Events - What is DOM and how to deal with it
<u>05</u>	<u>Lecture 5 JavaScript</u> <ul style="list-style-type: none"> - Objects and JSON - Deal with html tags (add, edit and delete) using JavaScript - interactive Image gallery page using JavaScript - add interactive and JavaScript effects to portfolio project

06 **Lectures 6 – 12 : Advanced HTML5 + CSS3 + JavaScript**

- CSS flexbox and grid layout system
- CSS functions
- CSS custom properties
- CSS Fonts
- Multilingual CSS web sites
- JavaScript timer and countdown
- JavaScript Sliders and popups windows (alerts, forms, lightbox)
- JavaScript Steppers and wizards
- JavaScript error handling
- JavaScript BOM and DOM in advance
- Cookies in JavaScript
- Build a Frontend project for E-library

07 **Lecture 13-14 : Bootstrap**

- Introduction to bootstrap 5
- Install bootstrap and link it with website
- Understanding flex layout on bootstrap 5
- Text and paragraph classes
- Images and media classes
- Navigation and forms classes
- Modals and jQuery plugins in bootstrap

08 **Lecture 14-15 : jQuery**

- Introduction to jQuery
- Overview for other libraries in JS
- Functions in jQuery
- Events Listeners
- Ajax requests in details using jQuery
- Working with DOM & BOM in jQuery
- Cookies and user preferences in jQuery
- Build. A frontend company website project

Database Course Contents

No.	Subject
<u>01</u>	<u>Lecture 1: database fundamentals and analysis</u> <ul style="list-style-type: none"> - Overview for database concepts - Relations in database - Datatypes and columns attributes (primary, index,etc.) - 1NF,2NF,3NF (normalization form)
<u>02</u>	<u>Lecture 2: Relational Database Quires (MySQL)</u> <ul style="list-style-type: none"> - Create, rename, drop database and tables - Create, alter, drop table columns - Create, alter, drop keys and constraints - Simple CRUD SQL (Create,Read,Update,Delete)
<u>03</u>	<u>Lecture 3 : Relational Database Quires (MySQL)</u> <ul style="list-style-type: none"> - Complex quires (inner join, left join, right join, outer join) with multi tables - subqueries and group by Quires - date and time functions - Converting functions <p>Final database project analysis and queries (MySQL)</p>
<u>04</u>	<u>Lecture 4 NoSQL Database (MongoDB)</u> <ul style="list-style-type: none"> - Introduction to NoSQL database - NoSQL database vs Relational Database - Setup and environment for mongo DB - Queries (create, update, delete) tables and data - Relations in NoSQL
<u>05</u>	<u>Lecture 4: NoSQL Firebase fire store</u> <ul style="list-style-type: none"> - Introduction to firebase - Setup firebase to website project - Create fire store database - Queries on fire store

Node js Course Contents

No.	Subject
<u>01</u>	<u>Lecture 1 : overview and introduction</u> <ul style="list-style-type: none"> - Introduction to node js - Setup and install environment (npm) - npm command line (CLI) - First example hello world - Structure and components of website project with node js
<u>02</u>	<u>Lecture 2 : node modules</u> <ul style="list-style-type: none"> - Introduction to module - Install module - Use module in project - Create a module
<u>03</u>	<u>Lecture 3 : events and timers</u>
<u>04</u>	<u>Lecture 4-6 express framework</u> <ul style="list-style-type: none"> - Setup and install express - Features of express - Handling http requests - Middleware
<u>05</u>	<u>Lecture 7 file system</u> <ul style="list-style-type: none"> - Working with directories and files (create , check ,read ...etc.) - Path module - fs module
<u>06</u>	<u>Lecture 8 – 9 database</u> <ul style="list-style-type: none"> - mongo db. with node js - connections - executing queries
<u>07</u>	<u>Lecture 10 networking programming(client server)</u> <ul style="list-style-type: none"> - Socket - create server and listeners - handing connections - error handling
<u>08</u>	<u>Lecture 11 Realtime web application</u> <ul style="list-style-type: none"> - case study chat project

PHP Course Contents

No.	Subject
01	<u>Lecture 1 php basics</u> <ul style="list-style-type: none"> - Variables, data types and functions - Control statements (if ,switch) - Loops statements (for ,while, do while, foreach)
02	<u>Lecture 2 php basics</u> <ul style="list-style-type: none"> - dates and string functions - Arrays and arrays functions, - JSON format - Handling http requests - files upload
03	<u>Lecture 3 php basics</u> <ul style="list-style-type: none"> - CRUD database procedural functions (MySQL)
04	<u>Lecture 4 php basics</u> <ul style="list-style-type: none"> - sessions and cookies
05	<u>Lecture 5 OOP Fundamentals</u> <ul style="list-style-type: none"> - Class and objects - Construct function - Inertance - Encapsulation - Abstract class - Interfaces - Polymorphism
06	<u>Lecture 6 design patterns</u> <ul style="list-style-type: none"> - Introduction to design pattern - Basic principles of design pattern - Using UML with design pattern - Class diagram - Acquaintance Relations - Aggregation Relationship - Inheritance and Implementation Relations
07	<u>Lecture 7 Design pattern</u> <ul style="list-style-type: none"> - Factory Method Design pattern - Prototype design pattern
08	<u>Lecture 8 Design pattern</u> MVC design pattern

09	<u>Lecture 9 Design pattern</u> <ul style="list-style-type: none"> - Façade - Singleton - Builder
10	<u>Lecture 10 PDO (Php Data Object)</u> <ul style="list-style-type: none"> - PDO structure - PDO vs mysql_query() - Database connection and PDO options - Simple queries using PDO
11	<u>Lecture 11 PDO (Php Data Object)</u> <ul style="list-style-type: none"> - Complex queries with PDO (subqueries , group by, table joins - Secure database queries form SQL injections
12	<u>Lecture 12 php advance</u> <ul style="list-style-type: none"> - Analyze the project requirements & features - Prepare the structure of files using MVC pattern - Setup theme for admin panel - Setup MySQL database - Building authentication System (login, logout, change password, forget password) -
13	<u>Lecture 13 php advance</u> <ul style="list-style-type: none"> - User management Roles and permissions - CRUD for e-books and categories
14	<u>Lecture 14 php advance</u> <ul style="list-style-type: none"> - Build the Query Builder using builder design pattern - Lecture 15 php advance - Shopping cart
15	<u>Lecture 15 php advance</u> <ul style="list-style-type: none"> - Shopping cart
16	<u>Lecture 16 php advance</u> <ul style="list-style-type: none"> - Mange customers orders and notifications includes - New orders & tracking
17	<u>Lecture 17 php advance</u> <ul style="list-style-type: none"> - Reports and statistics - Deployment to real online server

Laravel Course Contents

No.	Subject
01	<u>Lecture 1 Introduction of Laravel PHP Framework</u> <ul style="list-style-type: none"> - Installing composer and Laravel - Artisan CLI (command-line interface) - Laravel Directory Structure - Configuring a new Laravel project - Artisan command to generate boilerplate code for a controller - Basic routing - Call a controller method from a route - Passing variables from controllers to views
02	<u>Lecture 2 HTML Template to Laravel Blade Template</u> <ul style="list-style-type: none"> - 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 view - Loading a view into another view/nested views - Adding assets - Integrating with CSS files
03	<u>Lecture 3 Migrations</u> <ul style="list-style-type: none"> - 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
04	<u>Lecture 4 Using Forms and Gathering Input</u> <ul style="list-style-type: none"> - Creating contact us form - Validating user input - Sending email - Creating a file uploader - Validating a file uploader - Creating a custom error message - Using Artisan command to create inbuilt user register and login system - Adding Custom Fields to Registration Form

	- Creating user profile page
05	<u>Lecture 5 Using Controllers and Routes for URLs and APIs</u> <ul style="list-style-type: none"> - Introduction - Creating a basic controller - Creating a route using a closure - Making the controller RESTful - Using route groups - Building a RESTful API with routes
06	<u>Lecture 6 -7 Eloquent ORM (Storing and Using Data)</u> <ul style="list-style-type: none"> - Eloquent ORM Models - Naming conventions - Table name and primary keys - Timestamps - Eloquent ORM INSERT, READ, UPDATE, DELETE - Using models in controllers - Displaying data from models in views
07	<u>Lecture 8 Models and Relations</u> <ul style="list-style-type: none"> - Model attributes and functions - Relations between models and tables - One to many relation - Many to many relation - One to one relation
08	<u>Lecture 9 middle wares</u> <ul style="list-style-type: none"> - How to create middle ware - Integrating middle ware with routes and controllers - Handling middle ware return values
09	<u>Lecture 10 authentication & Roles</u> <ul style="list-style-type: none"> - How to authentication system - Roles and permissions - Handling middle ware return values
10	<u>Lecture 11 Notifications & corn jobs</u> <ul style="list-style-type: none"> - Push notifications to users - Integration with mail Champ - Scheduling tasks and corn jobs