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Frontend Development

Introduction to HTML, DHTML, JavaScript etc.

Introduction to Web Application Intranet / internet

Server and client Web page

Installation and configuring Server i.e. Apache, XAMPP

Module 1: HTML

HTML Overview

Structure of HTML Program

Formatting Text Creating List Creating Link

Adding Image and other page elements

Creating Tables
Creating Frame
Designing Form
Module 2: CSS3

Introduction to CSS3

Selectors Box Model CSS3 Borders

Working with border-radius Working with box-shadow Working with border-image

CSS3 Backgrounds
Background-size
Background-origin
CSS3 Gradients
Linear Gradients
Radial Gradients
CSS3 Text Effects
Text-shadow

Word-wrap

CSS3 Web Fonts Creating custom fonts

Font Descriptors CSS3 2D Transforms Working with translate Working with rotate

Working with scale Working with skew Working with matrix CSS3 3D Transforms Working with rotateX

Working with rotateY

CSS3 Transitions And Animations

Working with Animations
Working with Transitions

Module 3: Dreamweaver

The Dreamweaver interface.

Creating HTML documents.

Adding content to Web pages.

Adding structure tags to content.

Using CSS to style content.

Working with links and anchor tags.

Rollovers and interactivity, including javascript rollovers.

Module 4: JavaScript

Introduction to Javascript

What is JavaScript? What Is AJAX?

Developer Essentials

The development workflow

Selecting the right tools for the job

Just enough HTML and CSS
Understanding objects
Understanding variables
Making comparisons
Understanding events

Starting to Code

Writing your first script Internal vs. external scripts Using comments in scripts Using the NoScript tag in HTML

Interacting with Users

Creating alert dialogs

Understanding conditional statements Getting confirmations from users Creating prompts for users Understanding functions Making links smarter

Using switch/case statements

Handling errors

JavaScript Language Essentials

Getting started Creating loops

Passing values to functions

Detecting objects Reading arrays

Returning values from functions

Writing arrays

Building do and while loops

Re-using functions

Creating Rollovers and More Creating a basic image rollover How to write a better rollover Creating a three-state rollover

Making rollovers accessible and 508 compliant

Making disjointed rollovers Creating slideshows Displaying random images

Building Smarter Forms

Getting started Creating jump menus Creating dynamic menus

Requiring fields Cross-checking fields

Displaying more informative errors Verifying radio button selections Setting one field with another field

Verifying email addresses

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Handling Events

Responding to window events

Responding to mouse movements

Responding to mouse clicks

Responding to onBlur form events

Responding to onFocus form events

Responding to keyboard events

Working with Cookies

The DOM, Nodes, and Objects

Working with Dates and Times

Real-World Applications of JavaScript

Module 5: JQuery

What is jQuery?

Structure of jQuery

Using jQuery and including .js file to HTML

Type of Selectors

Handling Events with jQuery

Selectors Recap

Element and ID Selectors

¡Query DOM Traversal

jQuery DOM Manipulation

jQuery Effects

Understanding Forms

Adding Smarts to Your Forms

Form Validation

Module 6- Bootstrap

BS Introduction

BS Get Started

BS Grid Basic

BS Typography

BS Tables

BS Images

 ${\sf BS\ Jumbotron}$

BS Wells

BS Alerts

BS Buttons

BS Button Groups

BS Glyphicons

BS Badges/Labels

BS Progress Bars

BS Pagination

BS Pager

BS List Groups

BS Panels

BS Dropdowns

BS Collapse

BS Tabs/Pills

BS Navbar

BS Forms

BS Inputs

BS Inputs 2

BS Input Sizing

BS Media Objects

BS Carousel

BS Modal

BS Tooltip

BS Popover

BS Scrollspy

BS Affix

Mouse and Keyboard Events Directives

Controllers

Understanding Controllers

Programming Controllers & \$scope object

Adding Behavior to a Scope Object

Passing Parameters to the Methods

Having Array as members in Controller Scope.

Nested Controllers and Scope Inheritance.

Multiple Controllers and their scopes

Filters

Built-In Filters

Uppercase and Lowercase Filters

Currency and Number Formatting Filters

OrderBy Filter

Creating Custom Filter

Forms

Using Simple Form

Working with Select and Options

Input Validations Using CSS classes

Form Events

Custom Model update triggers

Custom Validations

Modules

Why Module? Loading and Dependencies Recommended

Setup of Application

Creation vs Retrieval.

Services

Understanding Services

Developing Creating Services

Using a Service

Injecting Dependencies in a Service

Module 7- AJAX

Ajax Basics

What is Ajax?

Ajax Rich Clients in the Real World

Ajax Advantages and Disadvantages

The Purpose of Ajax

The Traditional Web Application

An Ajax Web Application

Alternatives to Ajax

Ajax Components

The XMLHttpRequest Object

Handling the Response

Ajax Events

The Callback Function

DOM

Document Object Model Overview

DOM level 0

DOM level 1

DOM level 2

Passing Data

XML and Ajax

XML,DOM and Javascript

Dynamic Tables

JSON

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Server Side Code

The Role of the Server

Working with the Server Side

Coding the Server Side

Ajax Applications

Login Form

Quick Lookup Form

Preloaded Data

Module 8- AngularJS

Introduction to AngularJS

MVC Architecture

Conceptual Overview

Setting up the Environment

First Application

Understanding attributes

Expressions and Data Biding

Number and String Expressions

Object Binding and Expressions

Working with Arrays

Forgiving Behavior

Understanding Data binding

Working with Directives

Conditional Directives

Styles Directives

Mouse and Keyboard Events Directives

Controllers

Understanding Controllers

Programming Controllers & \$scope object Adding Behavior

to a Scope Object

Passing Parameters to the Methods

Having Array as members in Controller Scope.

Nested Controllers and Scope Inheritance. Multiple

Controllers and their scopes

Filters

Built-In Filters

Uppercase and Lowercase Filters

Currency and Number Formatting Filters

OrderBy Filter

Filter Filter

Creating Custom Filter

Forms

Using Simple Form

Working with Select and Options

Input Validations

Using CSS classes

Form Events

Custom Model update triggers

Custom Validations

Modules

Why Module?

Module Loading and Dependencies

Recommended Setup of Application

Creation vs Retrieval.

Services

Understanding Services

Developing Creating Services

Using a Service

Injecting Dependencies in a Service

Ajax in AngularJS

\$http Service

\$q Service

Ajax Impl using \$http and \$q Service

Module 9- NodeJS

Introduction to Javascript event driven programming Introduction to Node event -driven programming

MAKING A WEB SERVER

Webserver basis

Handling incoming request in Node JS

Serving static files / pages

Content caching

Streaming and optimization

Handling filesystem

WORKING WITH DATABASES (Prefered MONGODB over MYSQL)

Writing to a CSV File in Database

CRUD using MONGODB

Module 10- ReactJS

React JS Introduction

Advantages of React JS

Work flow of React JS

Scope of React JS

REACT JS ENVIRONMENT SETUPS

Node setup

How to use NPM?

How to create package.json and purpose of it?

ES6 Introduction and features.

Webpack Overview

Best IDE for React JS and How to write optimized code in React JS?

Topics to be covered:

- **Introduction to Web Development**
- HTML

3

CSS3

6

JavaScript

15 3

JQuery 3

Bootstrap

5

Dream viewer

AngularJS NodeJS

10

10

5

ReactJS