**LAKSHMAN\_JAVA\_IT\_SCHOOL**

**UI Technologies**

**WEB UI (User Interface)**

1. HTML4,5  
2. CSS2,3  
3. JavaScript  
4. Jquery  
5. AJAX  
6. Responsive Design  
7. Bootstrap  
8. LESS and SCSS  
9. Real Time Project

**HTML 4**

**Module 1: Web Programming Introduction**

* Architecture of a website
* Different technologies in making the website
* Web Development Introduction

**Module 2: HTML-Introduction**

* History of HTML
* What you need to do to get going and make your first HTML page
* What are HTML Tags and Attributes?
* HTML Tag vs. Element
* HTML Attributes

**Module 3: HTML-Basic Formatting Tags**

* HTML Basic Tags
* HTML Formatting Tags
* HTML Color Coding

**Module 4: HTML-Grouping Using Div Span**

* Div and Span Tags for Grouping

**Module 5: HTML-Lists**

* Unordered Lists
* Ordered Lists
* Definition list

**Module 6: HTML-Images**

* Image and Image Mapping

**Module 7: HTML-Hyperlink**

* URL - Uniform Resource Locator
* URL Encoding

**Module 8: HTML-Table**

* <table>
* <th>
* <tr>
* <td>
* <caption>
* <thead>
* <tbody>
* <tfoot>
* <colgroup>
* <col>

**Module 9: HTML-Iframe**

* Using Iframe as the Target

**Module 10: HTML-Form**

* < input >
* <textarea>
* < button >
* < select >
* < label >

**Module 11: HTML-Headers**

* Title
* Base
* Link
* Styles
* Script
* Meta

**Module 12: HTML-Miscellaneous**

* HTML Meta Tag
* XHTML
* HTML Deprecated Tags & Attributes

**PART 2**

**Module 1: CSS2-Introduction**

* Benefits of CSS
* CSS Versions History
* CSS Syntax
* External Style Sheet using < link >
* Multiple Style Sheets
* Value Lengths and Percentages

**Module 2: CSS2-Syntax**

* CSS Syntax
* single Style Sheets
* Multiple Style Sheets
* Value Lengths and Percentages

**Module 3: CSS2-Selectors**

* ID Selectors
* Class Selectors
* Grouping Selectors
* Universal Selector
* Descendant / Child Selectors
* Attribute Selectors
* CSS - Pseudo Classes

**Module 4: CSS2-Color Background Cursor**

* background-image
* background-repeat
* background-position
* CSS Cursor

**Module 5: CSS2-Text Fonts**

* color
* background-color
* text-decoration
* text-align
* vertical-align
* text-indent
* text-transform
* white space
* letter-spacing
* word-spacing
* line-height
* font-family
* font-size
* font-style
* font-variant
* font-weight

**Module 6: CSS2-Lists Tables**

* list-style-type
* list-style-position
* list-style-image
* list-style
* CSS Tables
  + border
  + width & height
  + text-align
  + vertical-align
  + padding
  + color

**Module 7: CSS2-Box Model**

* Borders & Outline
* Margin & Padding
* Height and width
* CSS Dimensions

**Module 8: CSS2-Display Positioning**

* CSS Visibility
* CSS Display
* CSS Scrollbars
* CSS Positioning
  + Static Positioning
  + Fixed Positioning
  + Relative Positioning
  + Absolute Positioning
* CSS Layers with Z-Index

**CSS Floats**

* The float Property
* The clear Property
* The clear fix Hack

**JAVASCRIPT**

**Introduction to JavaScript**

* Introduction of client side script
* Introduction of javascript
* Cross browser issues.
* Declaration syntax of javascript
* Statements
* Comments
* Popup Boxes
* Alert
* Confirm
* Prompt
* Variables, Arrays and Operators
* Variables
* Operators
* Arithmetic
* Assignment
* Comparison
* Logical

**Document Object Model**

* Functions and types
* Conversion functions

**Conditional Statements**

* if
* if…else
* if…else if…else
* Switch

**Loops**

* while
* do…while
* for
* for…in Statement
* Break
* Continue

**Window Object Document Object Arrays**

* Associative Arrays
* Array Properties and Methods

**Advanced JavaScript**

* Date object
* This object
* Event object
* State managament
* Cookie
* Form validation
* Expressions
* Email validation
* Dynamic functionalities of html controls

**Oop**

1. Class based oop, prototype base oop  
2. Inheritance,encapsulation,polymorphism,constructor,this,super  
3. Native objects

* Promises
* Clousers
* Arrow functions

**HTML5 Introduction**

* HTML5 HISTORY
* New Features and groups
* Backward Compatibility
* Why HTML5?
* Power of HTML5:
* m or mobi or touch domains
* Common Terms in HTML5

**HTML5 Syntax**

* The DOCTYPE:
* Character Encoding:

**Obsolete Elements/Deprecated Elements**

* <acronym>
* <applet>
* <basefont>
* <big>
* <center>
* <dir>
* <font>
* <frame>
* <frameset>
* <isindex>
* <noframes>
* <s>
* <strike>
* <tt>
* <u>
* <xmp>

**HTML5 New Elements**

* New Semantic/Structural Elements
* <article>
* <aside>
* <bdi>
* <command>
* <details>
* <dialog>
* <summary>
* <figure>
* <figcaption>
* <footer>
* <header>
* <mark>
* <meter>
* <nav>
* <progress>
* <ruby>
* <rt>
* <rp>
* <section>
* <time>
* <wbr>

**HTML5 Canvas**

* What is Canvas?
* Create a Canvas
* Canvas Coordinates
* Canvas – Paths
* Canvas – Text
* Canvas – Gradients
* Canvas – Images

**HTML5 SVG**

* What is SVG?
* SVG Advantages
* Differences Between SVG and Canvas
* Comparison of Canvas and SVG

**HTML5 Drag/Drop**

* Introduction
* Make an Element Draggable
* What to Drag?Where to Drop?

**HTML5 Geo location**

* Introduction
* Locate the User’s Position+
* Handling Errors and Rejections
* The getCurrentPosition()
* Geolocation object

**HTML5 Video**

* Introduction
* Video on the Web
* How It Works?
* Video Formats and Browser Support
* HTML5 Video Tags

**HTML5 Audio**

* Introduction
* Audio on the Web
* How It Works?
* Audio Formats and Browser Support
* HTML5 Audio Tags

**HTML5 Input Types**

* Introduction
* color
* date
* datetime
* datetime-local
* email
* month
* number
* range
* search
* tel
* time
* url
* week

**HTML5 Form Elements**

* <datalist>
* <keygen>
* <output>

**HTML5 Form Attributes**

* New attributes for <form> and <input>New attributes for <form>:
* autocomplete
* novalidate

**New attributes for <input>**

* autocomplete
* autofocus
* form, formaction
* formenctype,formmethod
* formnovalidate
* formtarget
* height and width
* list, min and max
* multiple
* pattern (regexp)
* placeholder
* required, step

**HTML5 Semantic**

* Introduction
* What are Semantic Elements?
* non-semantic elements: <div> and <span>
* semantic elements: <form>, <table>, and <img>
* New Semantic Elements in HTML5
* <header>
* <nav>
* <section>
* <article>
* <aside>
* <figcaption>
* <figure>
* <footer>

**HTML5 Web Storage**

* What is HTML5 Web Storage?
* Browser Support
* The localStorage Object
* The sessionStorage Object

**CSS3**

* Introduction
* CSS3 Modules
* Selectors
* Box Model
* Backgrounds and Borders
* Text Effects
* 2D/3D Transformations
* Animations
* Multiple Column Layout
* User Interface

**Borders**

* border-radius
* box-shadow
* border-image

**CSS3 Backgrounds**

* background-size
* background-origin

**CSS3 Text Effects**

* text-shadow
* word-wrap

**CSS3 Fonts**

* @font-face Rule
* font-stretch
* font-weight

**CSS3 2D Transforms**

* How Does it Work?
* Browser Support
* 2D Transforms
* translate()
* rotate()
* scale()
* skew()
* matrix()

**CSS3 3D Transforms**

* rotateX()
* rotateY()

**CSS3 Transitions**

* How does it work?
* transition-property, duration and delay

**CSS3 Animations**

* CSS3 @keyframes Rule
* Browser Support
* Animation, animation-duration

**CSS3 Multiple Columns**

* column-count
* column-gap
* column-rule

**CSS3 User Interface**

* resize
* box-sizing
* outline-offset

**JQUERY**

**Introduction**

* What You Should Already Know
* What is jQuery ?
* Adding the jQuery Library to Your Pages
* Basic jQuery Example
* Downloading jQuery
* Alternatives to Downloading
* jQuery Syntax
* The Document Ready Function
* How to use Custom Scripts?
* Using Multiple Libraries
* jQuery – noConflict() Method

**jQuery – Basics**

* String
* Numbers
* Boolean
* Objects
* Arrays
* Functions
* Arguments
* Scope
* Built-in Functions

**jQuery – Selectors**

**How to Use Selectors?**

* jQuery – CSS Element Selector and ID Selector
* jQuery – CSS Element Class Selector and Universal Selector
* jQuery – CSS Multiple Elements E, F, G Selector
* jQuery Callback Functions

**jQuery – DOM Attributes**

* Get Attribute Value
* Set Attribute Value

**jQuery – DOM Traversing**

* Find Elements by index
* Filtering out Elements
* Locating Descendent Elements
* JQuery DOM Traversing Methods

**jQuery – CSS Methods**

* Apply CSS Properties and Multiple CSS Properties
* Setting Element Width & Height
* JQuery CSS Methods

**jQuery – DOM Manipulation Methods**

* Content Manipulation
* DOM Element Replacement
* Removing DOM Elements
* Inserting DOM elements
* DOM Manipulation Methods
* Binding event handlers
* Removing event handlers
* Event Types
* The Event Object and Attributes

**jQuery – Effects**

* JQuery Effect Methods, Hide and Show
* jQuery Toggle
* jQuery Slide – slideDown, slideUp, slideToggle
* jQuery Fade – fadeIn, fadeOut, fadeTo
* jQuery Custom Animations

**jQuery – AJAX**

* load()
* get()
* post()
* ajax()

**jQuery – JSON**

* getJSON()

**Jquery-3.6.1.js**

**Jquery-cycle.js**

**Jqueyr-ui.js**

**Jquery-validation.js**

**Jquery-cycle.js**

**Jquery-ripple.js**

**AJAX**

**Introduction to Ajax**

* What is Ajax?
* What can you do with Ajax?
* Ajax and Web 2.0
* Ajax Basics
* Asynchronous requests to consume services or APIs
* Asynchronous Cross-Origin requests (CORS)

**Javascript AJAX Call**

* XMLHttpRequest object
* Open
* Send
* Onreadystatechange
* Response text

**HTML Template Tag**

* Working with Template tags
* Template tag features
* Template content cloning
* Manipulating template content and injecting new nodes

**Ajax with jQuery**

* Overview
* $.ajax() method and settings
* $.params() method
* jQuery and requests to JSON, XML, PHP sources
* jQuery and Template Tag

**Responsive Design**

* Meta tag
* Media queries

**LESS and SCSS**

**Real Time Project**