



Module Presenter's Manual *for* **Building Modern Websites**

***Effective from: March 2023
Ver. 1.0***



Amendment Record

Version No.	Effective Date	Change	Replaced Pages
1.0	March 2023	New	-

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1. Introduction

At the end of this course, students will be able to:

- Learn the basic HTML tags and attributes
- Explain the structure of Web pages using HTML
- Explain the concept of Cascading Style Sheets (CSS)
- Learn JavaScript, a scripting language used for adding interactivity to Web pages
- Learn jQuery and HTML5 mobile application support
- Design and build real-world case study based mini project

2. Information on Session Allocation

Module	Online (No. of Hours)	Self-Study (No. of Hours)
HTML5	40	12

Throughout this Presenter's Manual, the module **Building Modern Websites** will be referred to as **HTML5**.

3. Week-wise Session Schedule

- A Session is of 2 hours duration.









➤ Week-Wise Schedule

Week	Day 1	Day 2		Day 3	Day 4	
1	Session 1 HTML5 – TL1	Session 2 HTML5 –TL2		Session 3 HTML5 – TL3	Session 4 HTML5 – TL4	S1
2	Session 5 HTML5 – TL5	Session 6 HTML5 – TL6		Session 7 HTML5 – TL7	Session 8 HTML5 – TL8	S2
3	Session 9 HTML5 – TL9	Session 10 HTML5 – TL10	S3	Session 11 HTML5 – TL11	Session 12 HTML5 – TL12	
4	Session 13 HTML5 – TL13	Session 14 HTML5 – TL14	S4	Session 15 HTML5 – TL15	Session 16 HTML5 – TL16	
5	Session 17 HTML5 – TL17	Session 18 HTML5 – TL18	S5	Session 19 HTML5 – TL19	Session 20 HTML5 – TL20	S6

TL: Online Session

S: Self Study (over and above the module duration)

Resources available on OnlineVarsity for Students:

Icons	Feature - Description/Functionality
	Download Book - Student has the option to download the subject related e-book and read offline.
	Glossary - Student can access a list of subject related specialized words with their definitions.
	FAQ - Student can access frequently asked questions and their answers.
	Practice 4 Me - Student can test and evaluate their understanding of module related topics.
	Work Assignments - Student can solve scenario based lab assignments (Hands-on). The faculty will evaluate and give their feedbacks.
	References - Student can access additional subject related material for reading.
	Feedback - Student can provide feedback on the course material.
	Ask to Learn – Student can submit subject related technical queries. Queries submitted will be directed to the particular course coordinator/head.

4. Session Coverage

Session No.	Session Title	Session Details	Deliverables' Mapping
1	HTML5 – TL1	<p>All the topics as listed below from Session 1 and Session 2 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 1 – Introduction to the Web and HTML5</u></p> <ul style="list-style-type: none"> ➤ Explain evolution of HTML ➤ Explain the page structure used by HTML ➤ List new features of HTML5 ➤ Explain CSS ➤ Explain JavaScript ➤ Explain jQuery ➤ Explain browser support for HTML5 ➤ Explain elements constituting an HTML tag ➤ Describe DOCTYPE declarations ➤ Explain the basic tags in HTML ➤ List different data types, attributes, and entities of HTML5 ➤ Describe container and standalone tags ➤ Explain the role of HTML5 in mobile devices <p><u>Session 2 – Formatting Text and Using Hyperlinks and Anchors</u></p> <ul style="list-style-type: none"> ➤ Explain the Heading tag ➤ Explain different tags related to formatting ➤ Explain monospaced font, preformatted text, and block quotation ➤ Describe different types of lists ➤ Explain the procedure to change the background color and image ➤ Describe hyperlinks ➤ Explain absolute and relative paths ➤ Explain how to hyperlink to a Web page and e-mail address ➤ Explain how to hyperlink to anchors and other content 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 1 & 2 XP – Session 1 & 2 TG – Session 1 & 2</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
2	HTML5 – TL2	The Try It Yourself questions from Session 1 and Session 2 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.	<u>FrontEnd Technologies for Beginners</u> Session 1 & 2
3	HTML5 – TL3	All the topics as listed below from Session 3 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session. <u>Session 3 – Introduction to CSS3</u> <ul style="list-style-type: none"> ➤ Identify the new functions of CSS3 ➤ Explain the different types of selectors ➤ Explain nested tags ➤ Define Classes and IDs for applying styles ➤ Explain the process to apply styles to hyperlink 	<u>FrontEnd Technologies for Beginners</u> SG – Session 3 XP – Session 3 TG – Session 3
4	HTML5 – TL4	The Try It Yourself questions from Session 3 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.	<u>FrontEnd Technologies for Beginners</u> Session 3
	S1	All the Assignments from Session 1 to Session 3 of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.	<u>FrontEnd Technologies for Beginners (OnlineVarsity)</u> Session 1-3
5	HTML5 – TL5	All the topics as listed below from Session 4 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session. <u>Session 4 – Formatting Using Style Sheets</u> <ul style="list-style-type: none"> ➤ List and explain text and font styles ➤ Describe inline spans ➤ Explain paragraph indentation and application of border ➤ Explain horizontal paragraph 	<u>FrontEnd Technologies for Beginners</u> SG – Session 4 XP – Session 4 TG – Session 4

Session No.	Session Title	Session Details	Deliverables' Mapping
		<p>alignment</p> <ul style="list-style-type: none"> ➤ Explain vertical spacing within a paragraph ➤ Describe selector specificity and pseudo selectors ➤ Explain box model ➤ Illustrate the use of positioning and float property 	
6	HTML5 – TL6	<p>All the topics as listed below from Session 5 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 5 – Displaying Graphics and CSS3 Animation</u></p> <ul style="list-style-type: none"> ➤ Explain graphic formatting in Web pages ➤ Explain graphic insertion, sizing, and padding ➤ Explain CSS3 Animation ➤ Describe the use of CSS3 on mobile devices 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 5 XP – Session 5 TG – Session 5</p>
7	HTML5 – TL7	<p>All the topics as listed below from Session 6 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 6 – Understanding Layouts in CSS3</u></p> <ul style="list-style-type: none"> ➤ Describe flexbox and grid layouts ➤ Describe different flexbox properties ➤ Explain different grid properties 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 6 XP – Session 6 TG – Session 6</p>
8	HTML5- TL8	<p>All the topics as listed below from Session 7 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 7 – New Features of CSS3</u></p> <ul style="list-style-type: none"> ➤ Explain subgrid layout ➤ Illustrate new viewport units with examples 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 7 XP – Session 7 TG – Session 7</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		➤ Explain nesting	
	S2	All the Assignments from <i>Session 1</i> to <i>Session 4</i> to <i>Session 7</i> of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.	<u>FrontEnd Technologies for Beginners</u> (OnlineVarsity) Session 4-7
9	HTML5 – TL9	All the topics as listed below from <i>Session 8</i> of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session. <u>Session 8 – HTML Layout, Forms, and Elements</u> <ul style="list-style-type: none"> ➤ Explain HTML5 semantic tags and semantic tag layouts ➤ Explain the usage of navigation bar ➤ Explain divisions in HTML5 ➤ Describe HTML5 forms ➤ Explain the working of new input types in HTML5 ➤ Explain the new Form attributes ➤ Explain the new Form elements ➤ Define hidden fields 	<u>FrontEnd Technologies for Beginners</u> SG – Session 8 XP – Session 8 TG – Session 8
10	HTML5 – TL10	The Try It Yourself questions from <i>Session 4</i> to <i>Session 8</i> of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.	<u>FrontEnd Technologies for Beginners</u> Session 4-8
	S3	All the Assignments from <i>Session 8</i> of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.	<u>FrontEnd Technologies for Beginners</u> (OnlineVarsity) Session 8
11	HTML5 – TL11	All the topics as listed below from <i>Session 9</i> of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session. <u>Session 9 – HTML5 Tables, Audio, and Video</u> <ul style="list-style-type: none"> ➤ Describe how to create and 	<u>FrontEnd Technologies for Beginners</u> SG – Session 9 XP – Session 9 TG – Session 9

Session No.	Session Title	Session Details	Deliverables' Mapping
		<p>format tables</p> <ul style="list-style-type: none"> ➤ Explain the table size and the width of a column ➤ Explain the process of merging table cells ➤ Explain the page layout for tables ➤ Describe the necessity for multimedia in HTML5 ➤ List the supported media types in HTML5 ➤ Explain the audio elements in HTML5 ➤ Explain the video elements in HTML5 ➤ Explain the accessibility of audio and video elements ➤ Describe how to deal with non-supporting browsers 	
12	HTML5 – TL12	<p>The Try It Yourself questions from Session 9 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p>	<p><u>FrontEnd Technologies for Beginners</u></p> <p>Session 9</p>
13	HTML5 – TL13	<p>All the topics as listed below from Session 10 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 10 – JavaScript - I</u></p> <ul style="list-style-type: none"> ➤ Explain scripting ➤ Explain the JavaScript language ➤ Explain the client-side and server-side JavaScript ➤ List the variables and data types in JavaScript ➤ Describe the JavaScript methods to display information ➤ Explain escape sequences and built in functions in JavaScript ➤ Explain events and event handling ➤ Explain jQuery ➤ Describe how to use the jQuery Mobile ➤ Explain operators and their types in JavaScript ➤ Explain regular expressions in 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 10 XP – Session 10 TG – Session 10</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<p>JavaScript</p> <ul style="list-style-type: none"> ➤ Explain decision-making statements in JavaScript ➤ Explain while loop ➤ Explain for loop ➤ Explain do..while loop ➤ Explain break and continue statement ➤ Explain single-dimensional arrays ➤ Explain multi-dimensional arrays ➤ Explain for..in loop 	
14	HTML5 – TL14	<p>All the topics as listed below from Session 11 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 11 – JavaScript - II</u></p> <ul style="list-style-type: none"> ➤ Explain functions ➤ Explain parameterized functions ➤ Explain return statement ➤ Describe objects ➤ Explain different browser objects ➤ Describe DOM and its objects ➤ Identify the use of Promise.any ➤ Explain Private class methods ➤ Explain JSON 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 11 XP – Session 11 TG – Session 11</p>
	S4	<p>All the Assignments from Session 9 to Session 11 of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.</p>	<p><u>FrontEnd Technologies for Beginners (OnlineVarsity)</u></p> <p>Session 9-11</p>
15	HTML5 – TL15	<p>The Try It Yourself questions from Session 10 and Session 11 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p>	<p><u>FrontEnd Technologies for Beginners</u></p> <p>Session 10 & 11</p>
16	HTML5 – TL16	<p>All the topics as listed below from Session 12 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 12 – ECMAScript 2022</u></p>	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 12 XP – Session 12</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<p><u>and its New Features</u></p> <ul style="list-style-type: none"> ➤ Describe new features and improvements in ECMAScript 2022 ➤ Describe Top-level await ➤ Explain static class initialization blocks 	TG – Session 12
17	HTML5 – TL17	<p>All the topics as listed below from Session 13 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 13 – Canvas and Web Storage in HTML5</u></p> <ul style="list-style-type: none"> ➤ Describe Canvas in HTML5 ➤ Explain the procedure to use color and transparency ➤ Explain the procedure to work with various drawing objects, images, and text ➤ Describe the procedure to create Web page events with JavaScript and jQuery ➤ Describe the process of including external content in Web pages ➤ Explain Web storage in HTML5 ➤ Explain session storage and local storage ➤ Explain Indexed DB API ➤ Explain difference between native apps and HTML5 apps ➤ Describe advantages of native and HTML5 apps ➤ List steps to convert HTML5 apps to native apps 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 13 XP – Session 13 TG – Session 13</p>
18	HTML5 – TL18	<p>All the topics as listed below from Session 14 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.</p> <p><u>Session 14 – HTML5 Geolocation and APIs</u></p> <ul style="list-style-type: none"> ➤ Explain geolocation and its use in HTML5 ➤ Explain the Google Maps API 	<p><u>FrontEnd Technologies for Beginners</u></p> <p>SG – Session 14 XP – Session 14 TG – Session 14</p>

Session No.	Session Title	Session Details	Deliverables' Mapping
		<ul style="list-style-type: none"> ➤ Explain the drag-and-drop operations in HTML5 ➤ Explain the concept of Application Cache 	
	S5	All the Assignments from Session 12 to Session 14 of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.	<u>FrontEnd Technologies for Beginners (OnlineVarsity)</u> Session 12-14
19	HTML5 – TL19	All the topics as listed below from Session 15 and Session 16 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session. <u>Session 15 – Building Mobile Websites</u> <ul style="list-style-type: none"> ➤ Identify necessity for mobile Websites ➤ List and describe various HTML5 frameworks and their features ➤ Summarize importance of creating a responsive Web page ➤ Illustrate steps to create a responsive Web page by applying HTML, CSS, and JavaScript <u>Session 16 – Mini Project</u> <ul style="list-style-type: none"> ➤ Explain the use of HTML5, CSS, and JavaScript in a real-world application 	<u>FrontEnd Technologies for Beginners</u> SG – Session 15 & 16 XP – Session 15 & 16 TG – Session 15 & 16
20	HTML5 – TL20	The Try It Yourself questions from Session 12 to Session 16 of <i>FrontEnd Technologies for Beginners</i> book should be covered in this session.	<u>FrontEnd Technologies for Beginners</u> Session 12-16
	S6	All the Assignments from Session 15 of <i>FrontEnd Technologies for Beginners</i> course should be solved in this session.	<u>FrontEnd Technologies for Beginners (OnlineVarsity)</u> Session 15

5. Library References

➤	HTML5: Up and Running by Mark Pilgrim
➤	HTML5 and CSS3 Masterclass: In-depth Web Design Training with Geolocation, the HTML5 Canvas, 2D and 3D CSS Transformations, Flexbox, CSS Grid, and More by Robin Nixon
➤	Head First HTML5 Programming: Building Web Apps with JavaScript by Eric Freeman, Elisabeth Robson

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