

Day	Topics
	Module: Introduction
1	Welcome and Introduction to Course, Basic of Web
2	Introduction to Search Engine Optimization (SEO), Installing VS Code
3	Task: Research on needed resource
	Find 20 websites for free Images and Illustrations.
	Find 20 websites for free selecting colour combination for web applications.
	Find 20 websites for free selection of Typography and Fonts.
	Find 20 websites for free selection of web icons.
	Find 20 websites for free Background Patterns and Textures.
	Find 20 websites for free Loading Animations and Spinners
	Make a list of all social media platform.
	Find 50 web components from a web application like amazon.
	Module: HTML (Hyper Text Markup Language)
1	What is HTML? What are tags? What is an HTML element. What are attribute?
	What are block and inline elements. Working with HTML files.
	Outer Structure: doctype, html, head, body, title
	Heading Tags: h1 to h6
	HTML comments, Paragraph tag
	Formatting Tags: b, strong, i, em, u, ins, s, del, sup, sub, mark, small

	More tags: hr, address, br
2	blockquote, cite, Explain file path, img, a, iframe, ul, ol, li
	table, caption, thead, tbody, tfoot, tr, th, td
3	meta, span, div, form, label, input, textarea, select, option, button, link
4	picture, source, figure, figcaption, audio, video, menu, nav, header, main, footer,
	section, article, aside
5	Assignment Day
	Module: CSS (Cascading Style Sheets)
1	Introduction to CSS, Anatomy of a Style Rule, @charset rule,
	Types of CSS (Inline, OnPage/Internal, External)
	Selectors: Basic Selector: Universal Selector (*), Type Selector (element),
	Id Selector (#), Class Selector (.), Attribute Selector ([attr], [attr=value])
	Combinator: Descendant combinator (element element)
	Child combinator (element > element), Selector list (,)
	Unit: Introduction to units, Absolute Unit: Pixel
	Dimension Property: width, height
	CSS Property: color, background-color (with color formats)
2	Background: background-image, background-repeat, background-position,
	background-size, background-attachment, background (shorthand)
	Font: font-family, font-size, font-style, font-weight, line-height, font (shorthand)
	Text: text-align, text-decoration, text-shadow, text-transform, text-indent,

	word-spacing, letter-spacing
3	The CSS Box Model, content, padding, border, margin
	Display: block, inline, inline-block, none
	float, clear, list-style-type, list-style-image, list-style-position, list-style (shorthand)
	overflow-x, overflow-y, overflow (shorthand), opacity
4	Flexbox: Introduction, Basic Terminology
	Parent: display: flex, flex-direction, flex-wrap, justify-content, align-items, align-content, gap
	Child: align-self, order
5	FlexBox Practice
6	Position: static, relative, absolute, fixed, sticky
	Positional properties (nudge): top, right, bottom, left
	box-sizing, border-radius, box-shadow, z-index, visibility
7	Types of CSS Units (Absolute / Relative)
	Absolute Length: pixels (px)
	Relative Length: Percentage (%), em, rem, vw, vh
	Explain : <meta name="viewport" content="width=device-width, initial-scale=1.0 />
	Approach to Responsive Web Design: mobile first and desktop first
	@media rule
	@media only < media type > and < media feature > { .. CSS Code .. }
	Responsive Web Design Demo
8	Responsive Web Design Practice
9	How to create a web template using HTML and CSS - Day 1

10	How to create a web template using HTML and CSS - Day 2
11	outline, outline-offset, object-fit, linear-gradient, clip-path, @font-face, @import
	Pseudo Classes: hover, focus, first-child, last-child, nth-child(), nth-child(even) and
	nth-child(odd), root along with css variable
	Pseudo Elements: before, after, placeholder, selection
12	transform : rotateX(deg), rotateY(deg), rotate(deg), scaleX(), scaleY(), scale(),
	skewX(), skewY(), skew(), translateX(), translateY(), translate()
	transition-* : transition-delay, transition-duration, transition-property,
	transition-timing-function, transition (shorthand)
13	animation-* : animation-name, animation-duration, animation-delay,
	animation-timing-function, animation-iteration-count, animation-direction,
	animation-fill-mode, animation (shorthand) with @keyframe.
14	Assignment Day
	Figma
1	Explain the Software Development Life Cycle. Creating a web template in Figma
2	Creating a web template in Figma
	Module: Bootstrap
1	What is Bootstrap? Installation of Bootstrap in project (CDN Version)
	Why to use bootstrap.bundle.js
	Breakpoint: Explain breakpoint (sm, md, lg, xl, xxl). How to use media queries

	Container: container-fluid, container
	Grid: Explain why row is required in grid-system? Equal width, setting one column width,
	responsive classes, mix and match, Nesting
2	Grid system Practice
3	Row columns, offsetting columns, Utilities: display
	Flex: Enable flex, direction, justify-content, align-items, wrap, align-self, order
4	Spacing: margin, padding. Sizing: width, height, Position
	Components: Carousel, offcanvas
5	How to create a web template using Bootstrap
6	Typography: Heading classes, Display heading classes, table, figure, responsive image
	Utilities: background, borders, colors
	Helpers: coloured link, ratio, stretched link
7	Utilities: shadow,
	Text: text alignment, text transform, font size, font weight and style, text decoration
	Components: Close button, alert, breadcrumb
8	Components: button, button group, collapse, accordion, dropdown, modal
9	Components: nav and tabs, scrollspy, navbar
10	Form: form control, form-control sizing, color, select, select sizing, check and radio
	range, input group, floating labels
11	Assignment Day
	Module: JavaScript

1	What is JavaScript? Why to use JavaScript? History of JavaScript. What is ECMA?
	Where to write JavaScript. Comments in JavaScript. What is console?
	Methods in console: log(), error(), warning(), table()
	What are variable? Datatypes in JavaScript. typeof - operator and function
2	Interaction Boxes: alert, prompt, confirm.
	Operators: Arithmetic, Assignment, Comparison, Logical, Increment/Decrement, Unary
	Concatenation, Template Literals (Backtick), use strict directive, parseInt(), parseFloat()
3	What are Control Statements? Decision Control Statements/Selection Statements
	Decision Statements: simple if, if___else, elseif ladder, Nested if, switch case statement
	Ternary Operator / Conditional Operator (?:)
	document.write()
	Selection HTML Elements: getElementById(), innerHTML, innerText
4	Looping Statements / Iteration Statements: Entry Control and Exit Control
	Entry Control: while loop, for loop
	Exit Control: do___while loop (Compulsory Execution)
	Explain and trace two star pattern programs
5	What is a Function? Pre-defined & User Defined.
	Functions with Return Value and without Return Value.
	Parameterized Functions, Non-Parameterized Functions, Arrow Function
6	Doubt Session : Programming Concepts
7	What is Event in Javascript?
	Mouse Events: onclick, onmousedown, onmouseup, onmouseover, onmouseout

	Form Events: onchange, onfocus, onblur
	How to get value from HTML form? this keyword, setAttribute() method.
8	Keyboard Events: onkeydown, onkeyup, onkeypress
	Window Events: onload, onscroll
	Windows Object: print(), location (redirect), Form Event: onsubmit, preventDefault()
9	Array & Objects: What is an Array? What is an Object? How to create array of objects?
	How to fetch array using looping statements?
	map() method, filter() method, Array Destructuring, Spread Operator
10	Standard built-in objects:
	Number and Date:
	Math Object: Property: Math.PI
	Method: Math.ceil(), Math.floor(), Math.pow(), Math.random(), Math.round(), Math.sqrt()
	Date Object: getDate(), getDay(), getFullYear(), getHours(), getMilliseconds(), getMinutes(),
	getMonth(), getSeconds(), getTime(), toLocaleString()
	Text Processing:
	String Object: Property: length
	Method: concat(), indexOf(), lastIndexOf(), slice(), split(), substring(), trim()
	Indexed Collection:
	Array: Property: length
	Method: concat(), indexOf(), join(), pop(), push(), shift(), slice(), splice(), unshift()
11	Doubt Session: Events in JavaScript and Array
12	Selecting Elements in JavaScript: getElementsByClassName(), getElementsByTagName(),

	querySelector(), querySelectorAll(), addEventListener().
	Window Methods: setTimeout(), setInterval()
13	What is Document Object Model?
	Manipulating new elements: createElement(), createTextNode()
	Modifying element content: appendChild(), insertBefore(), replaceChild(), removeChild()
14	What is AXIOS? Fetch Data using AXIOS. (JSON Placeholder or RapidAPI)
15	Assignment Day
	Module : jQuery
1	Introduction to jQuery. What are compressed (production) and uncompressed (development) versions.
	jQuery Syntax, What is document.ready event.
	jQuery Selectors:
	Basic Selectors: Universal Selector (*), Type selector (element), Id selector (#), Class selector (.)
	Attribute selector ([]) : ([attr], [attr=value])
	Combinators: Group Selector(,), Descendent Combinator ()
	jQuery - css() method with single and multiple css properties
2	jQuery Event Methods:
	Mouse Events: click(), dblclick(), hover(), mouseenter(), mouseleave()
	Keyboard Events: keydown(), keyup(), keypress()
	Form Events: focus(), blur()
	Using Event Handler Attachment (on)
	jQuery Effects:

	Basic: hide(), show() toggle()
	Fading: fadeIn(), fadeOut(), fadeToggle(), fadeTo()
	Sliding: slideDown(), slideUp(), slideToggle()
	Custom: animate()
3	Manipulation:
	Get and Set: text(), html(), val(), attr()
	Add Elements: append(), prepend(), before(), after()
	Remove Elements: remove(), empty()
	Tree Traversing: parent(), parents(), parentUntil(), children(), find(), siblings(),
	next(), nextAll() nextUntil(), prev(), prevAll(), prevUntil()
	Class Attribute: addClass(), removeClass(), toggleClass(), hasClass()
	jQuery Callback function, change() and submit()
4	jQuery.ajax() (use JSON Placeholder)
	jQuery Plugins: counter-up, easypiechart, aos
5	jQuery Plugins: owlcarousel, chart.js
6	Assignment Day
	Module :React.js
1	What is Single Page Application (SPA)? What is React? History of React. React Developer Tools
	React features. Installation of Node. Installation of react app using (create-react-app and vite).
	Deleting the unwanted files. How to launch react application, How to stop react application.
	What are React Elements? How to create a React Element.

	What are JSX? What are React Components. Types of components.
2	Creating a component, How to use a component.
	Comment in React. Data types in React. Styling in React. What are React.Fragments?
	Installation of Bootstrap using CLI (Command Line Interface).
	What are Props? Passing Props to a Component
	Rendering List: How to send Array of object from parent to child.
	How to render them in child using map()
3	What are hooks? What is useState().How to use useState hook, How to fetch data from form and store in a variable using useState on click. Updating props using useState on click.
4	Lifting State Up: How to send data from child to parent using props
5	Working with Styled Components and Material UI
6	Working with HTTP request. Fetch Data using AXIOS . (JSON Placeholder)
	How to post and get data from server (use mockapi.io)
7	What is Routing? React-Router (Library) : react-router-dom library
8	useRef(), useEffect(),
9	Portals in React. Context API and useContext()
10	Assignment Day