

INFOSOFT IT SOLUTIONS

Training | Projects | Placements

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HTML 5 AND CSS3 TRAINING

HTML5 Syllabus:

1: Introduction to HTML

- Overview of HTML
- Basic structure of an HTML document
- HTML elements and tags
- Text formatting and semantics

2: Working with Links and Images

- Creating hyperlinks
- Linking to external resources
- Inserting images
- Image formats and optimization

3: Lists and Tables

- Creating ordered and unordered lists
- Designing tables
- Table headers, rows, and cells
- Table accessibility

4: Forms and Input Elements

- Creating HTML forms
- Input types and attributes
- Form validation
- Styling forms with CSS

5: Multimedia and Embedding

- Embedding audio and video
- Using the `<audio>` and `<video>` elements
- Embedding external content (e.g., Google Maps, YouTube videos)

6: Semantic HTML5

- Semantic elements (e.g., `<header>`, `<nav>`, `<section>`, `<article>`, `<footer>`)
- Accessibility considerations
- SEO best practices with semantic HTML

7: Responsive Web Design

- Introduction to responsive design
- Media queries
- Flexbox and Grid layout
- Creating responsive navigation menus

CSS3 Syllabus:

8: Introduction to CSS

- Overview of CSS
- CSS syntax and selectors
- Applying styles inline, internal, and external

9: Working with Text and Fonts

- Styling text properties (e.g., font-family, font-size, color)
- Using web fonts
- Text effects (e.g., text-shadow, text-transform)

10: Box Model and Layout

- Understanding the box model
- Margin, padding, border properties

- Positioning elements (static, relative, absolute, fixed)
- Creating layouts with floats

11: CSS3 Transitions and Animations

- Introduction to CSS3 animations
- Transition properties
- Keyframe animations
- Animation timing and easing functions

12: CSS3 Advanced Features

- CSS preprocessors (e.g., SASS, LESS)
- CSS frameworks (e.g., Bootstrap)
- CSS methodologies (e.g., BEM, SMACSS)

13: CSS Grid and Flexbox

- Understanding CSS Grid Layout
- Flexbox fundamentals
- Building layouts with Grid and Flexbox

14: CSS Best Practices and Optimization

- Writing efficient CSS code
- Performance optimization techniques
- Cross-browser compatibility

HTML5 advance:

1: Advanced HTML Structure and Semantics

- Semantic HTML5 elements in depth
- Accessibility considerations and ARIA roles
- Microdata and schema markup

2: Advanced Forms and Inputs

- Custom form styling with CSS
- Form validation using HTML5 attributes and JavaScript
- Creating accessible and user-friendly forms

3: Web Storage and Offline Applications

- Local Storage and Session Storage
- IndexedDB for larger data storage
- Service Workers and Progressive Web Apps (PWAs)

4: Geolocation and Device Access

- Using the Geolocation API
- Accessing device hardware (e.g., camera, microphone) with HTML5 APIs
- Privacy and security considerations

5: Canvas and WebGL

- Drawing graphics with the HTML5 Canvas API
- Introduction to WebGL for 3D graphics
- Creating interactive visualizations and games

6: Web Components

- Introduction to Web Components
- Shadow DOM
- Custom Elements and HTML Templates

7: Advanced Media Handling

- Manipulating audio and video with JavaScript
- Media streaming and adaptive bitrate streaming
- Media Source Extensions (MSE)

CSS3 advance:

8: Advanced CSS Selectors and Specificity

- Pseudo-classes and pseudo-elements
- Attribute selectors and combinators
- Specificity and the cascade

9: Responsive Design Techniques

- Flexbox and Grid layout for advanced responsive design
- Viewport units and responsive typography
- Creating responsive images and videos

10: CSS Preprocessors and Postprocessors

- Advanced SASS/SCSS features (e.g., mixins, functions, extends)
- CSS postprocessors (e.g., Autoprefixer)
- Task runners and build systems (e.g., Gulp, Webpack)

11: CSS Animation and Transitions

- Keyframe animations with CSS3
- Using animation libraries (e.g., GreenSock)
- Performance optimization for animations

12: Advanced Layout Techniques

- CSS Grid Layout for complex layouts
- Multi-column layout
- CSS Regions and Exclusions

13: CSS Frameworks and Architecture

- Deep dive into popular CSS frameworks (e.g., Bootstrap, Foundation)
- Scalable and maintainable CSS architecture (e.g., BEM, SMACSS, OOCSS)

14: CSS Optimization and Performance

- Critical CSS and reducing render-blocking resources
- CSS minification and compression techniques
- Performance audits and optimization tools

15: Final Project and Portfolio Development

- Apply advanced HTML5 and CSS3 techniques to a comprehensive project
- Portfolio review and preparation for real-world applications