



TECHNOCATION FREELANCING TRAINING INSTITUTE & SOFTWARE HOUSE

Professional jQuery Course Outline

Module 1: Introduction to jQuery

- What is jQuery & Why Use It?
- jQuery vs. Vanilla JavaScript
- Setting Up jQuery in a Project (CDN vs. Local)
- Understanding the jQuery Library & Compatibility

Module 2: jQuery Syntax & Selectors

- Understanding jQuery Syntax & the `$` Function
- Selecting Elements with jQuery (`id`, `class`, `attribute` selectors)
- Traversing the DOM (parent, child, sibling elements)
- Filtering Elements in jQuery

Module 3: jQuery Events & Event Handling

- Handling Click, Hover, Keypress, and Form Events
- Event Delegation & Propagation (Bubbling & Capturing)
- Preventing Default Actions & Stop Propagation
- Using `.on()`, `.off()`, and `.trigger()` Methods

Module 4: DOM Manipulation with jQuery

- Changing HTML Content & Attributes (`.html()`, `.text()`, `.attr()`)
- Modifying CSS Styles (`.css()`, `.addClass()`, `.removeClass()`)
- Creating & Removing Elements (`.append()`, `.prepend()`, `.remove()`)
- Cloning & Replacing Elements (`.clone()`, `.replaceWith()`)

Module 5: Animations & Effects in jQuery

- Hiding & Showing Elements (`.hide()`, `.show()`, `.toggle()`)
- Fading Effects (`.fadeIn()`, `.fadeOut()`, `.fadeToggle()`)
- Sliding Effects (`.slideUp()`, `.slideDown()`, `.slideToggle()`)
- Custom Animations with `.animate()`

Module 6: jQuery & AJAX

- Introduction to AJAX & JSON with jQuery
- Fetching Data from an API using `.ajax()` & `.getJSON()`
- Handling API Responses & Errors
- Submitting Forms without Page Refresh (`.serialize()`, `.post()`)

Module 7: jQuery Plugins & UI Components

- Understanding jQuery Plugin Architecture
- Implementing Popular jQuery Plugins (Sliders, Modals, Tooltips)
- Working with jQuery UI (Datepicker, Autocomplete, Drag & Drop)
- Customizing & Extending jQuery Plugins

Module 8: jQuery & Form Validation

- Validating Form Inputs with jQuery
- Using the jQuery Validation Plugin
- Displaying Error Messages & Custom Error Styling
- Enhancing User Experience with Interactive Forms

Module 9: jQuery & Responsive Web Design

- Making Elements Responsive with jQuery
- Working with Media Queries & jQuery
- Creating Responsive Menus & Navigation Bars
- Optimizing jQuery for Mobile Devices

Module 10: Advanced jQuery Techniques

- Chaining Multiple jQuery Methods
- Using jQuery Deferred & Promises for Asynchronous Code
- Understanding jQuery Data (`.data()`)
- Debugging & Optimizing jQuery Code

Module 11: jQuery with Modern JavaScript (ES6+)

- jQuery vs. Modern JavaScript (Fetch API, Async/Await)

- Using jQuery with React & Angular
- Transitioning from jQuery to Vanilla JS
- Best Practices for Using jQuery in Modern Web Development

Module 12: Final Project & Certification Preparation

- Building a Fully Functional jQuery-Based Web Application
- Integrating jQuery with APIs & Databases
- Preparing for jQuery-Related Interviews & Certifications
- Career Paths in Web Development with jQuery