

jQuery

- jQuery is a fast, small, and lightweight JavaScript library.
- It makes it easier to use JavaScript by providing simple methods to:
 - Select HTML elements,
 - Change content,
 - Handle events,
 - Add animations,
 - Work with AJAX.
- jQuery = Shortcut for JavaScript.

Uses of jQuery

1. Easy DOM Manipulation

- Quickly find and change HTML elements & attributes.
- Example: Change text of a paragraph with one line.

2. Event Handling

- Handle user actions like clicks, keypress, hover.
- Example: Show a message when a button is clicked.

3. Animations and Effects

- Add sliding, fading, hiding, and showing effects.

4. Cross-Browser Compatibility

- jQuery handles differences between browsers automatically.

5. AJAX Support

- Load data from servers without reloading the page.
- Example: Search suggestions (like Google search).

6. Simpler Syntax

- Short and clean compared to raw JavaScript.

Examples**1. Change Text**

```

<p id="demo">Hello</p>
<button>Click Me</button>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script>
  $("#button").click(function(){
    $("#demo").text("Hello jQuery!");
  });
</script>

```

2. Hide an Element

```
$("#demo").hide();
```

3. Show an Element

```
$("#demo").show();
```

4. Fade Effect

```
$("#demo").fadeOut();
```

JQUERY PROPERTY

<u>Type</u>	<u>Selector / Method / Event</u>	<u>Usage</u>
<u>Selector</u>	<u>\$("#id")</u>	Selects element by ID.
	<u>\$(".class")</u>	Selects elements by class.
	<u>\$("tag")</u>	Selects all elements with given tag.
	<u>\$("*")</u>	Selects all elements.

	\$("#p:first")	Selects the first <p> element.
	\$("#p:last")	Selects the last <p> element.
	\$("#p:eq(2)")	Selects the 3rd <p> element (index starts at 0).
	\$("#p:odd")	Selects odd-indexed <p> elements.
	\$("#p:even")	Selects even-indexed <p> elements.
	\$("#div > p")	Selects <p> that are direct children of <div>.
	\$("#div p")	Selects all <p> inside <div> (any level).
	\$("#input:text")	Selects all text input fields.
	\$("#input:checked")	Selects checked checkboxes/radio buttons.
Method (Effects)	.hide()	Hides selected element(s).
	.show()	Shows hidden element(s).
	.toggle()	Toggles between hide/show.
	.fadeIn()	Fades in an element.
	.fadeOut()	Fades out an element.
	.fadeToggle()	Toggles fade in/out.
	.slideDown()	Slides element down.
	.slideUp()	Slides element up.

	.slideToggle()	Toggles slide effect.
Method (Content & Attributes)	.html()	Gets/sets HTML content inside an element.
	.text()	Gets/sets text content.
	.val()	Gets/sets value of input field.
	.attr()	Gets/sets attribute value (like src, href).
	.css()	Gets/sets CSS properties.
	.addClass()	Adds a CSS class to element.
	.removeClass()	Removes a CSS class.
	.toggleClass()	Adds/removes class on toggle.
Method (DOM Manipulation)	.append()	Inserts content at end of element.
	.prepend()	Inserts content at beginning of element.
	.after()	Inserts content after element.
	.before()	Inserts content before element.
	.remove()	Removes selected element(s).
	.empty()	Removes all child elements/content.

Event	.click()	Triggers function when element is clicked.
	.dblclick()	Triggers function on double-click.
	.mouseenter()	When mouse enters element.
	.mouseleave()	When mouse leaves element.
	.hover()	Combination of enter + leave.
	.keydown()	When a key is pressed down.
	.keyup()	When a key is released.
	.keypress()	When a key is pressed.
	.submit()	When form is submitted.
	.focus()	When input field gets focus.
	.blur()	When input field loses focus.
	.change()	When input value changes.
	.on("event", function)	Attaches event handler (preferred modern way).
	.off("event")	Removes event handler.