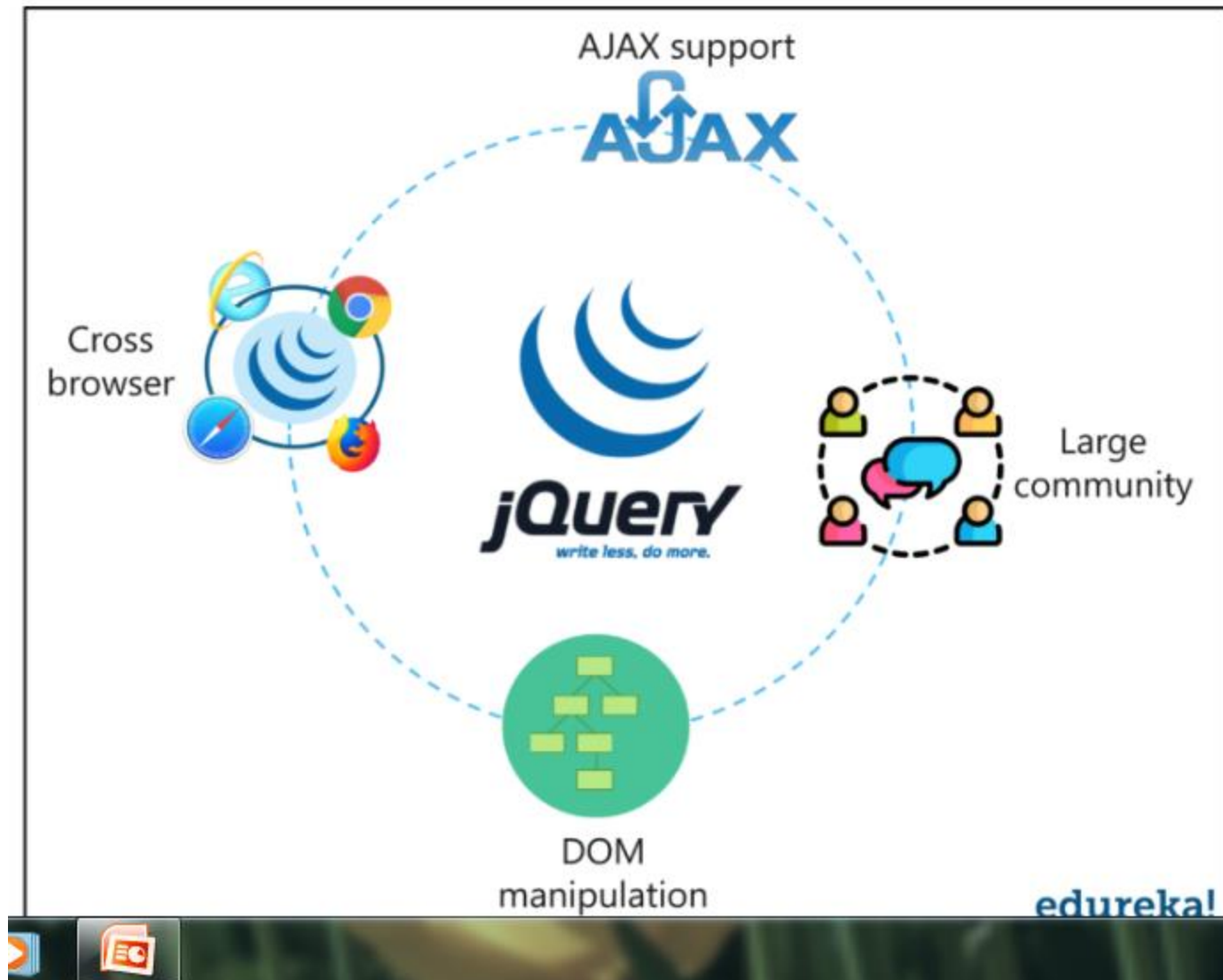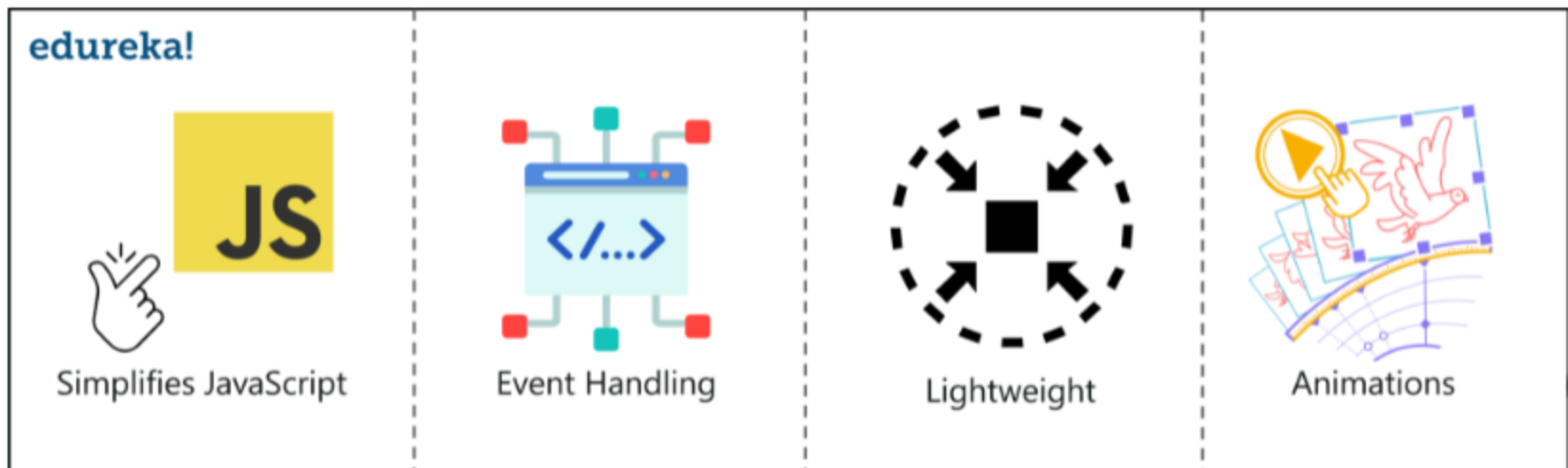# Why use jQuery?

What is jQuery?

jQuery is an efficient & fast JavaScript Library created by John Resig in 2006. The motto of jQuery is write less, do more, which is very apt because it's functionality revolves around simplifying each and every line of code. Below is a list of jQuery key features:

What is jQuery – jQuery Tutorial

- **Simplifies JavaScript**: It simplifies DOM manipulation and event handling for rapid web development
- **Event handling**: jQuery offers an effective manner to capture a wide variety of events, such as a user clicking on a link, without the need to clutter the HTML code
- **Lightweight**: jQuery is a compact, lightweight library of about 19KB in size
- **Animations**: It comes with plenty of built-in animation effects which you can use in your web app to make it more interactive

Jquery

- jQuery is a JavaScript Library.
- jQuery greatly simplifies JavaScript programming.
- jQuery is easy to learn.
- The purpose of jQuery is to make it much easier to use JavaScript on your website.

- Before you start studying jQuery, you should have a basic knowledge of:
- HTML
- CSS
- JavaScript

- What is jQuery?
- jQuery is a lightweight, "write less, do more", JavaScript library.
- The purpose of jQuery is to make it much easier to use JavaScript on your website.
- jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

- jQuery Syntax

- With jQuery you select (query) HTML elements and perform "actions" on them.

- The jQuery syntax is tailor-made for **selecting** HTML elements and performing some **action** on the element(s).

- Basic syntax is: **$(*selector*).*action*()**

- A $ sign to define/access jQuery

- A (*selector*) to "query (or find)" HTML elements

- A jQuery *action*() to be performed on the element(s)

- $(this).hide() - hides the current element.
- $("p").hide() - hides all <p> elements.
- $(".test").hide() - hides all elements with class="test".
- $("#test").hide() - hides the element with id="test".

- Adding jQuery to Your Web Pages

- There are several ways to start using jQuery on your web site.

- You can:

1. Download the jQuery library from jQuery.com

2. Include jQuery from a CDN, like Google

- The jQuery library is a single JavaScript file, and you reference it with the HTML <script> tag.

- <script> tag should be inside the <head> section

1. `<head>`
   `<script src="jquery-3.5.1.min.js"></script>`
   `</head>`

2. `<head>`
   `<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>`
   `</head>`

jQuery Selectors:

- jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more. It's based on the existing CSS Selectors, and in addition, it has some own custom selectors.

- All selectors in jQuery start with the dollar sign and parentheses: $().

-

- The element Selector- $("p")

- The #id Selector   - $("#test")

- The .class Selector   - $(".test")

- <!DOCTYPE html>
- <html>
- <head>
- <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"> </script>

- `<script>`
- `$(document).ready(function(){`

```
$("button").click(function(){
$("p").hide();
});
});
```

- `</script>`
- `</head>`

- <body>
- <h2>This is a heading</h2>

- <p>This is a paragraph.</p>
- <p>This is another paragraph.</p>

- <button>Click me to hide paragraphs</button>

- </body>
- </html>

Output:

- **This is a heading**

- This is a paragraph.
- This is another paragraph.

Click me to hide paragraph

Output:

- **This is a heading**

Click me to hide paragraph

jQuery Event Methods

- Examples:
- moving a mouse over an element
- selecting a radio button
- clicking on an element

- jQuery Syntax For Event Methods
- In jQuery, most DOM events have an equivalent jQuery method.

Here are some common DOM events:

Mouse Events	Keyboard Events	Form Events	Document/Window Events
click	keypress	submit	load
dblclick	keydown	change	resize
mouseenter	keyup	focus	scroll
mouseleave		blur	unload

- $("p").click();
- to define : $("p").click(function(){

                                                   // action goes here!!

                                  });

Commonly Used jQuery Event Methods:

- **$(document).ready()**

The $(document).ready() method allows us to execute a function when the document is fully loaded.

- **click()**
- The click() method attaches an event handler function to an HTML element.
- Example
- $("p").click(function(){
  $(this).hide();
  });
- **dblclick()**
- Example: $("p").dblclick(function(){
  $(this).hide();
  });

- The on() Method

- Example
- $("p").on("click", function(){
  $(this).hide();
  });

```
<!DOCTYPE html>
<html>
<head>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquer
y.min.js"></script>
<script>
$(document).ready(function(){
  $("p").on("click", function(){
    $(this).hide();
  });
});
</script>
</head>
<body>

<p>If you click on me, I will disappear.</p>
<p>Click me away!</p>
<p>Click me too!</p>
```

If you click on me, I will disappe

Click me away!

Click me too!

javascript:void(0)

jQuery Effects

- Hide, Show, Toggle, Slide, Fade, and Animate, etc..

Hide and Show:

Program:

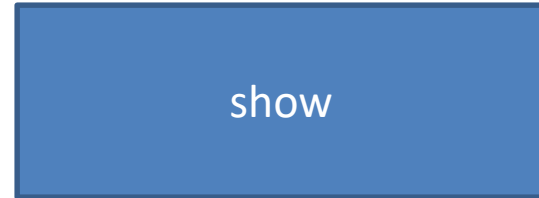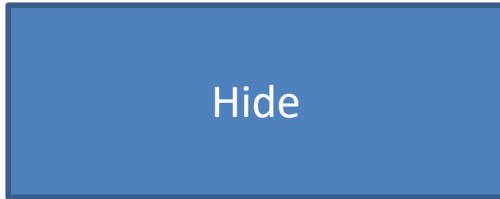<!DOCTYPE html>

<html>

<head>

- `<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>`
- `<script>`
- `$(document).ready(function(){`
- `  $("#hide").click(function(){`
- `    $("p").hide();`
- `  });`
- `  $("#show").click(function(){`
- `    $("p").show();`
- `  });`
- `});`
- `</script>`

- </head>
- <body>

- <p>If you click on the "Hide" button, I will disappear.</p>

- <button id="hide">Hide</button>
- <button id="show">Show</button>

- </body>
- </html>

- If you click on the "Hide" button, I will disappear.

-
Hide   **show**

jQuery Effects - Fading

- With jQuery you can fade elements in and out of visibility.

- $(*selector*).fadeIn(*speed,callback*);

- <!DOCTYPE html>

- <html>

- <head>

- <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

```
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#div1").fadeIn();
    $("#div2").fadeIn("slow");
    $("#div3").fadeIn(3000);
  });
});
</script>
```

- </head>
- <body>
- <p>Demonstrate fadeIn() with different parameters.</p>
- <button>Click to fade in boxes</button>

- <div id="div1" style="width:80px;height:80px;display:none;background-color:red;"></div>
- <div id="div2" style="width:80px;height:80px;display:none;background-color:green;"></div>
- <div id="div3" style="width:80px;height:80px;display:none;background-color:blue;"></div>
- </body>
- </html>

Output:

- Demonstrate fadeIn() with different parameters.

Click me to fade in boxes

Demonstrate fadeIn() with different parameters.

Click to fade in boxes

jQuery Sliding Methods

- jQuery has the following slide methods:
- slideDown()
- slideUp()
- slideToggle()

jQuery Animations - The animate() Method

- **Syntax:**

- $(*selector*).animate({*params*},*speed,callback*);

- Example

- $("button").click(function(){
  $("div").animate({left: '250px'});
  });

- <!DOCTYPE html>
- <html>
- <head>
- <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
- <script>
- $(document).ready(function(){
-   $("button").click(function(){
-     $("div").animate({left: '250px'});
-   });
- });
- </script>
- </head>
- <body>

```html
<button>Start Animation</button>

<p>By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!</p>

<div
style="background:#98bf21;height:100px;width:100px;position:absolute;"></div>

</body>
</html>
```

Get your own website

Start Animation

By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!

9:54 AM
11/13/2021

Start Animation

By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!

jQuery HTML

- jQuery contains powerful methods for changing and manipulating HTML elements and attributes.

- jQuery DOM Manipulation is so easy.

- **DOM = Document Object Model**

  The DOM defines a standard for accessing HTML and XML documents:

- Get Content - text(), html(), and val()
- Three simple, but useful, jQuery methods for DOM manipulation are:
- text() - Sets or returns the text content of selected elements
- html() - Sets or returns the content of selected elements (including HTML markup)
- val() - Sets or returns the value of form fields

- The following example demonstrates how to get content with the
jQuery text() and html() methods:

Program:

<!DOCTYPE html>

<html>

<head>

<script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

```
$(document).ready(function(){
  $("#btn1").click(function(){
    alert("Text: " + $("#test").text());
  });
  $("#btn2").click(function(){
    alert("HTML: " + $("#test").html());
  });
});
</script>
```

- </head>
- <body>

- <p id="test">This is some bold text in a paragraph.</p>

- <button id="btn1">Show Text</button>
- <button id="btn2">Show HTML</button>

- </body>
- </html>

Output:

Result Size: 531 x 371

Get your own website

This is some **bold** text in a paragraph.

Show Text   Show HTML

yjquery_dom_html_get

www.w3schools.com says

Text: This is some bold text in a paragraph.

OK

Run >

Result Size: 5

);

);

This is some **bold** text in a paragraph.

Show Text Show HTML

ename=tryjquery_dom_html_get

www.w3schools.com says

HTML: This is some bold text in a paragraph.

OK

Run ❯

Result Size: 531

ext());

tml());

This is some **bold** text in a paragraph.

Show Text   Show HTML

jQuery - css:

- jQuery css() Method
- The css() method sets or returns one or more style properties for the selected elements.
- Return a CSS Property
- To return the value of a specified CSS property

Example:

The following example will return the background-color value of the FIRST matched element:

- <!DOCTYPE html>
- <html>
- <head>
- <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
- <script>
- $(document).ready(function(){
-   $("button").click(function(){
-     alert("Background color = " + $("p").css("background-color"));
-   });
- });
- </script>
- </head>

- <body>

- <h2>This is a heading</h2>

- <p style="background-color:#ff0000">This is a paragraph.</p>
- <p style="background-color:#00ff00">This is a paragraph.</p>
- <p style="background-color:#0000ff">This is a paragraph.</p>

- <button>Return background-color of p</button>

- </body>
- </html>

Run ❯

Get your website

```
pis.com/aja
y.min.js">




n(){
ion(){
or = " +
lor"));
```

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

Return background-color of p

Set a CSS Property

- syntax: css("*propertyname*","*value*");

Program:

<!DOCTYPE html>

<html>

<head>

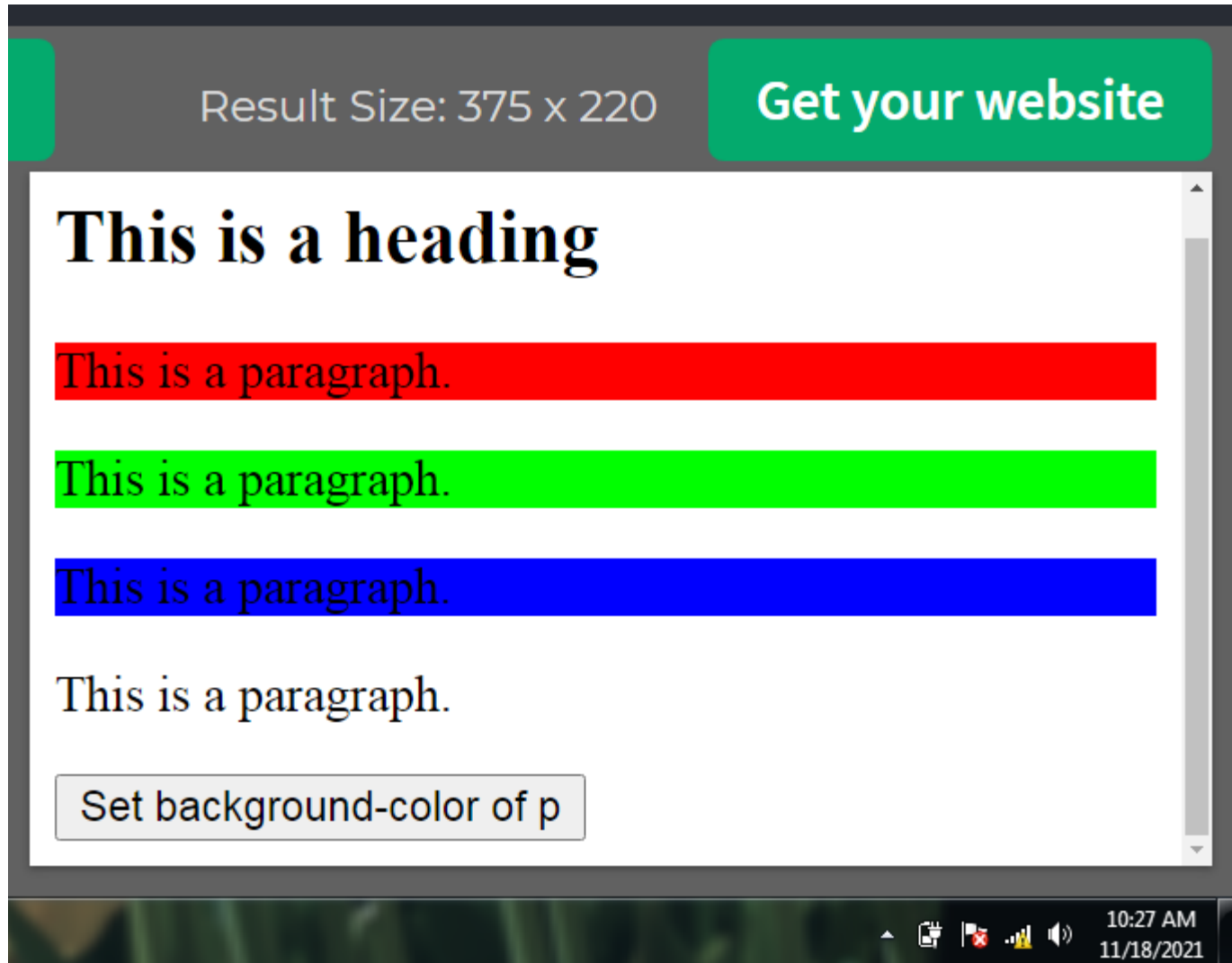<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>

- `<script>`
- `$(document).ready(function(){`
- `  $("button").click(function(){`
- `    $("p").css("background-color", "yellow");`
- `  });`
- `});`
- `</script>`
- `</head>`

- <body>

- <h2>This is a heading</h2>

- <p style="background-color:#ff0000">This is a paragraph.</p>
- <p style="background-color:#00ff00">This is a paragraph.</p>
- <p style="background-color:#0000ff">This is a paragraph.</p>

- <p>This is a paragraph.</p>

- <button>Set background-color of p</button>

- </body>
- </html>

- Output:

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

This is a paragraph.

Set background-color of p

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Set Multiple CSS Properties

- Syntax:
- css({"*propertyname*":"*value*","*propertyname*": "*value*",...});
- Program:

- $("p").css({"background-color": "yellow", "font-size": "200%"});

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

This is a paragraph.

Set multiple styles for p