

Objective:

Integrating AJAX (Asynchronous JavaScript and XML) into your web applications allows you to create dynamic and interactive features such as live search, dynamic form submissions, and updating parts of the page without refreshing.

Step1: Include the jQuery Library

In the head section:

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
```

Step2: Live Search: Create input

```
<input type="text" id="searchInput" placeholder="Search...">
```

```
<div id="searchResults"></div>
```

Step3: Attach an event listener to the input field to trigger an AJAX request whenever the user types in the search box

```
$(document).ready(function() {  
    $('#searchInput').keyup(function() {  
        var query = $(this).val();  
        $.ajax({  
            url: 'search.php', // URL to your server-side script handling the search  
            method: 'GET',  
            data: { query: query },  
            success: function(response) {  
                $('#searchResults').html(response);  
            }  
        });  
    });  
});
```

Step4: Dynamic Form Submission

```

<form id="myForm">
  <input type="text" name="username" placeholder="Username">
  <input type="email" name="email" placeholder="Email">
  <button type="submit">Submit</button>
</form>

```

Step5: Intercept the form submission using AJAX to prevent the default behavior, then submit the form data asynchronously.

```

$(document).ready(function() {
  $('#myForm').submit(function(event) {
    event.preventDefault(); // Prevent default form submission
    var formData = $(this).serialize();
    $.ajax({
      url: 'submit.php', // URL to your server-side script handling form submission
      method: 'POST',
      data: formData,
      success: function(response) {
        // Handle success response
      },
      error: function(xhr, status, error) {
        // Handle error response
      }
    });
  });
});

```

Step6: Updating Parts of the Page Without Refreshing

```

<div id="dynamicContent"></div>

```

Step7: Use AJAX to fetch new content from the server and update the container periodically.

```

$(document).ready(function() {
  function updateDynamicContent() {
    $.ajax({

```

```
    url: 'dynamic-content.php', // URL to your server-side script returning dynamic
content
```

```
    method: 'GET',
```

```
    success: function(response) {
```

```
        $('#dynamicContent').html(response);
```

```
    }
```

```
});
```

```
}
```

```
// Update dynamic content every 5 seconds
```

```
setInterval(updateDynamicContent, 5000);
```

```
});
```
