First, you need to set up the necessary routes, controllers, and views in your Laravel application.

1. Create a route in your web.php file to handle the Ajax request:

Route::post('/check-username', 'UserController@checkUsername')->name('check.username');

2. Create a UserController with the checkUsername method to handle the Ajax request and check the username existence:

```
<?php

namespace App\Http\Controllers;

use App\Models\User;
use Illuminate\Http\Request;

class UserController extends Controller
{
   public function checkUsername(Request $request)
   {
      $username = $request->input('username');

      $user = User::where('username', $username)->first();

      if ($user) {
            return response()->json(['exists' => true]);
      }

      return response()->json(['exists' => false]);
    }
}
```

3. Create a view file, such as check-username.blade.php, to display the form and handle the Ajax request:

```
<h2>Check Username Existence</h2>
  <form id="username-form">
    @csrf
    <label for="username">Username:</label>
    <input type="text" name="username" id="username">
    <button type="submit">Check</button>
  </form>
  <div id="result"></div>
  <script>
    $(document).ready(function() {
      $('#username-form').submit(function(e) {
        e.preventDefault();
        var username = $('#username').val();
        $.ajax({
          type: 'POST',
          url: '{{ route('check.username') }}',
          data: { username: username },
          dataType: 'json',
          success: function(data) {
            if (data.exists) {
              $('#result').html('Username exists.');
              $('#result').html('Username does not exist.');
            }
        });
      });
   });
 </script>
</body>
</html>
```

That's it! Now, when a user submits the form, the Ajax request will be sent to the checkUsername method in the UserController. The method will check if the username exists in the database and return a JSON response. Finally, the response is displayed on the page using jQuery.

Remember to replace the necessary parts, such as the model class and view file names, with your own implementation details.