INTRODUCTION

Input submitted by a user through a web browser must often be validated before being accepted. Since the connection between the user and the web browser is usually not a constant one, most of this validation will usually occur locally on the “client-side“ (web browser such as Internet Explorer, Google Chrome, Firefox, Safari, etc.) or remotely on the “server-side” (database or web server).

CLIENT-SIDE VALIDATION

As we know from last week’s assignment and discussions, validation on the client-side typically involves the use of the scripting language JavaScript. Another scripting language that may be used is VBScript (ICIEV, 2012). When this method of validation is utilized, the JavaScript file or function is specified in the HTML document, and will usually immediately inform the user that their input is not valid. Client-side validation has the advantage of almost instantaneous feedback (ICIEV, 2012). This is due to the fact that it is run locally in the browser itself. Another advantage of client-side validation is that it provides a more “interactive” experience with the user (Fote, 2013). The appearance and the format of the web page can change depending on the input received by the user. Examples of this are editable text areas and the availability of certain menus.

There are disadvantages though to client-side validation. First of all, not all users have JavaScript enabled in their browsers. Some may choose not to allow it for security reasons, while some may just be technically unable, due to not being comfortable using computers. In cases like this, client-side validation may not be effective in protecting web and server databases from malicious attacks (Net-informations.com, n.d.).

SERVER-SIDE VALIDATION

Validation on the server side is typically carried out using such frameworks like Microsoft ASP.NET (Microsoft Developer Network, 2014), or other programming languages such as C++, Python, PHP, Java, and more recently, JavaScript (Jaiswal, 2014). The advantage of validating on the server-side is that it is more secure; JavaScript disabled on the client-side is less likely to result in unwanted information being passed to the server. The disadvantage of server-side validation is that there is a decrease in performance due to more bandwidth being required.

RECOMMENDATIONS

As was explained above, server-side validation is slower, but more secure. Client-side validation is faster, gives a better user experience, but may not protect one’s server from attacks. Therefore, tradeoffs must be made depending on the application. Logins and accessing databases on servers requiring high security such as banks should have their validation done on the server-side. If a more pleasing and interactive user experience were desired that does not require security (e.g., the contact us section of a web page used for sending email), then I would of course recommend client-side validation. Nevertheless, I recommend doing both types of validation to mitigate the risk of unwanted data bypassing client-side validation.

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