

If an attacker can control a script that is executed in the victim's browser, then they can typically fully compromise that user. Amongst other things, the attacker can:

Perform any action within the application that the user can perform. View any information that the user is able to view. Modify any information that the user is able to modify. Initiate interactions with other application users, including malicious attacks, that will appear to originate from the initial victim user.

Mitigation:

Filter input on arrival: At the point where user input is received, filter as strictly as possible based on what is expected or valid input. Encode data on output. At the point where user-controllable data is output in HTTP responses, encode the output to prevent it from being interpreted as active content. Depending on the output context, this might require applying combinations of HTML, URL, JavaScript, and CSS encoding.

Use appropriate response headers.: To prevent XSS in HTTP responses that aren't intended to contain any HTML or JavaScript, you can use the Content-Type and X-Content-Type-Options headers to ensure that browsers interpret the responses in the way you intend.

Content Security Policy: As a last line of defense, you can use Content Security Policy (CSP) to reduce the severity of any XSS vulnerabilities that still occur