According to the characteristics of XSS attack, we present four types of XSS attack escapetechnologies proposed in this paper, including encoding obfuscation, sensitive word substitution,position morphology transformation, and adding special characters. The attack vectors are generated based on the escape strategy, which is used for adversarial attack the detection tools or models to mine adversarial samples that escape detection and retain aggressive features.
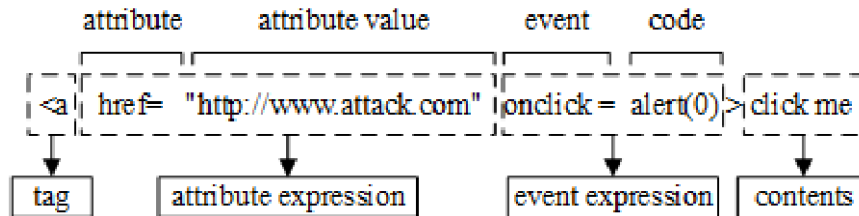
On the basis of four types of escape techniques, the escape action space of the XSS attack is defined as follows:

• Add an assignment expression before the event
• Replace the alert function with another function
• Use the top function to modify the alert function
• Add a random string at the end of the label
• Add a random string at the end of the sample
• General the event replacement tag for any character
• Add a comment between the function and the parameter
• Add a calculation expression before the function
• Replace the brackets
• Replace the space
• Replace the event
• Add blank characters after the event
• Randomly convert the uppercase and lowercase letters of the label and event character words
• Attribute expression and event expression positional transformation
• Unicode encoding
• HTML entity encoding