4. What is the DOM? What is meant by the DOM tree?
   - The DOM stands for Document object model. It is the representation of all of the elements, attributes, and text in the web document structure. The DOM is helpful in providing ways for programs like javascript to access and update parts of the web page. The DOM tree is basically the representation of this structure in a tree- like way. The nodes represent an element/attribute/text, and are organized outward in a parent-child like relationship. This gives the form of a tree with branches going out.

5. What is a XSS attack? How do they work? How can you guard against them?
   - XSS stands for Cross-site scripting, and occurs when a malicious script is injected into a webpage as to allow a hacker to steal information, manipulate the webpage, and other malicious things as well. Usually, these attacks occur when there are feilds/forms that allow users to input and submit data that has not been validated. To guard against them, one must build a secure webpage with strong input validation, and use output encoding. One may also opt to use a content security policy. These (known as CSP) restrict the sources of certain types of content.