**Based on your understanding of HTML/CSS and the DOM, answer the following questions to understand and analyze the ImageSwap application. Use the ImageSwap application code (download wk6 folder from Blackboard) for this activity. Use the Chrome debugger with breakpoints if necessary.**

Before you start, complete the form below to assign a role to each member.

|  |  |
| --- | --- |
| **Team Roles** | **Team Member** |
| Recorder: records all answers & questions and submits a copy to instructor. |  |
| Speaker: asks questions to the instructor during activity |  |
| Coder: manages, executes and writes code |  |

1. Draw the DOM tree for the HTML of the ImageSwap application.
2. What event calls the ONLOAD event handler?
3. Circle the part of the tree above that is represented by the variable *listNode*?
4. What type of object (Number, String, Array, Document, Window, Element) is *imageLinks*? What is in this object?
5. What is the value of *imageLinks.length*? Briefly explain what happens in each loop.
6. When the value of *i = 2*, which line of code in the HTML is referred by *imageLinks[i]*? What is the value of *imageLinks[2].getAttribute(“href”)*?
7. Now assume the user ran the application. The page loads. The user then clicks on the 3rd image link. Use the Chrome debugger with breakpoints to run the application if necessary.

* 1. Which event handler gets called?
  2. Which HTML tag is referred by variable *link*? Draw a box around the tag in the tree above.
  3. Which HTML tag is referred by variable *captionNode*? Draw a triangle around the tag in the tree above.
  4. Which HTML tag is referred by variable *imageNode*? Draw a circle around the tag in the tree above.
  5. Consider this statement in the swap function:

imageNode.setAttribute(“src”, link.getAttribute(“href”));

What is the value of *link.getAttribute(“href”)*?

What is the value of the *src* attribute of *imageNode* before the statement is executed?

What is the value of the *src* attribute of *imageNode* after the statement is executed?

* 1. Consider this statement in the swap function:

captionNode.firstChild.nodeValue = link.getAttribute(“href”)

What is the value of *link.getAttribute(“title”)*?

What is the value of *captionNode.firstChild.nodeValue* before the statement is executed?

What is the value of *captionNode.firstChild.nodeValue* after the statement is executed?

* 1. Summarize the swap function in a few sentences.
  2. Comment out the code that cancels default action of an event and run the application. What happens?