SCI ESSAY:

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Day 1:
In day 1 , we studied about the Layers of the Web and the Structure of the webpage using HTML. In layers of the web we learned what the internet is, different protocols like IPV4, TCP, HTTP, and how the request/response works for the webpages. In Structure of the webpage, we learned about HTML which we can use to structure a page in a certain way. We can divide the page in different elements like <h1> to <h6> tags for different levels of headings, <p> tag for the paragraphs and so on. We also learned about how to display lists and tables using html.

Day 2:
We studied about how to style an html page using CSS. We learned about basic css for changing the colors, backgrounds, different font styles and sizes, different ways we can decorate text. Difference between classes and ids was also clear after this lesson. We also learned about what happens when styles conflict and which style wins during those cases.

Day 3:
In day 3, we learned a more Advanced CSS. We learned about the box model, difference between content-box and border box. We also learned about the difference between inline and block elements and how we can style them. In the box model, we studied margin, paddings, borders, and learned the concept of margin collapse. Apart from that, different positions like static, fixed, absolute, and relative were studied, as well as we learned how to make boxes float left or right using float property.

Day 4:
In day 4, we learned about how to design a responsive webpage using media queries, flexbox, CSS grid and boot strap. We also learned a lot about forms, different form controls, and also about the input widgets and different types of inputs.

Day 5:
In day 5, we started JavaScript. We learned key concepts of JavaScript like data types, if statements, for/while loops etc. We also studied about JavaScript functions and learned the difference between function declaration and function expression. We also had some practice on functional programming using JavaScript. Map, filter and reduced were introduced and some examples of using those were studied.

Day 6:
We learned about global objects in JavaScript like window, document, location etc. We also understood the concept of unobtrusive JavaScript which separates the concerns to three parts (content – HTML, presentation – CSS, behavior – JS). Also, we learned about setTimeout and setInterval to execute the function with a certain timer.

Day 7:
In day 7, we learned more about JavaScript. Functional programming in JS was clearer after learning the lessons. We also studied Rest and Spread and when or why to use them. Apart from that, we learned about Regular Expressions, how to write then, and how we can integrate them inside input tags to check for the validity of the text inputted by the user.

Day 8:
In day 8, we continued learning about JavaScript. We learned about global and local scopes in JS. We understood the concept of hoisting on functions and on variables when used var keyword. We also learned about the differences between var, let, and const. We studied how the code is executed and understood the two-phase execution process. Finally, we learned the concept called closure in JavaScript, why we need to use them and how to use them.

Day 9:
In day 9, we understood in detail about the keyword 'this' in JavaScript. We also learned about what are .call(), .apply() and .bind() functions and when and how to use them. IIFE and Revealing module pattern also became clear after the lessons.

Day 10:
In day 10, we learned about inheritance in JavaScript. We understood that there's a hidden property [[PROTOTYPE]] in every object which we can use to apply the inheritance. We also learned about Constructor operator and how to use constructor functions to make inheritance.

SCI:
This course is a reminiscent of the SCI principle "Life is found in layers.". If we look at the nature, an orange has bitter skin on the outside, tasty fruit on the inside, and sweet juice within the fruit. Physics also tells that creation is structured in layers – surface, molecular, atomic, subatomic, nuclear, subnuclear, and ultimately the unified field at the basis of all forms and phenomena. Similarly, in web programming, everything is structured in layers. First, we have HTML, that structures the pages content in different tags, then we use different CSS styles to give that content some design so that it looks beautiful and easier to read the pages content. Then we use JavaScript, to give those content behaviors, like do something after a button is clicked, or make some animation and so on. Hence, the web page is constructed in layers from simplest to the more complicated and more interactive form. This is very similar to the SCI Principle "Life is found in layers.".