LAB ASSIGNMENT NO- 02

<u>Aim:</u> Using CSS and CSS3 enhance the web application developed in Assignment 1. Use Color, Background, Font, Table, List, CSS3 selectors, Pseudo classes, and Pseudo elements properties should be used to enhance the web pages.

Theory:

- <u>CSS Colors:</u> The color property in CSS is used to set the color of HTML elements. Typically, this property is used to set the background color or the font color of an element. In CSS, we use color values for specifying the color. Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.
- <u>CSS Background:</u> CSS background property is used to define the background effects on element. There are 5 CSS background properties that affects the HTML elements:
 - 1. background-color The background-color property specifies the background color of an element. E.g. body{background-color: blue;}
 - 2. background-image -The background image property specifies an image to use as the background of an element. E.g. body {background-image: url("paper.gif");}
 - 3. background-repeat By default, the background-image property repeats an image both horizontally and vertically.
 - 4. background-attachment The background-attachment property specifies whether the background image should scroll or be fixed (will not scroll with the rest of the page).
 - 5. background-position The background-position property is used to define the initial position of the background image. By default, the background image is placed on the top-left of the webpage.
- <u>CSS Font:</u> CSS Font property is used to control the look of texts. By the use of CSS font property, you can change the text size, color, style and more. You have already studied how to make text bold or underlined. Here, you will also know how to resize your font using percentage.
 - 1. CSS Font color: This property is used to change the color of the text. (Standalone attribute)
 - 2. CSS Font family: This property is used to change the face of the font.

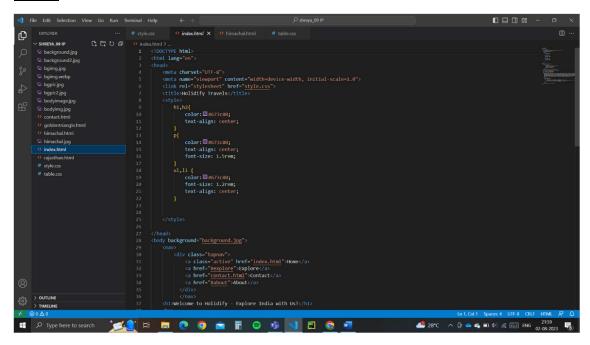
- 3. CSS Font size: This property is used to increase or decrease the size of the font.
- 4. CSS Font style: This property is used to make the font bold, italic or oblique.
- 5. CSS Font variant: This property creates a small-caps effect.
- 6. CSS Font weight: This property is used to increase or decrease the boldness and lightness of the font.
- <u>CSS Tables:</u> We can apply style on HTML tables for better look and feel. There are some CSS properties that are widely used in designing table using CSS:
 - 1. border: We can set border for the table, th and td tags using the CSS border property.
 - 2. border-collapse: By the help of border-collapse property, we can collapse all borders in one border only.
 - 3. Padding: We can specify padding for table header and table data using the CSS padding property.
- CSS List: The CSS list properties allows us to:
 - 1. Set different list item markers for ordered lists.
 - 2. Set different list item markers for unordered lists.
 - 3. Set an image as the list item marker.
 - 4. Add background colors to lists and list items.
- <u>CSS3 Selectors</u>: CSS selectors are used to select the content you want to style. Selectors are the part of CSS rule set. CSS selectors select HTML elements according to its id, class, type, attribute etc. There are several different types of selectors in CSS.
 - 1. <u>CSS Element Selector</u>- The element selector selects the HTML element by name.
 - 2. <u>CSS Id Selector</u>- The id selector selects the id attribute of an HTML element to select a specific element. An id is always unique within the page so it is chosen to select a single, unique element. It is written with the hash character (#), followed by the id of the element.
 - 3. <u>CSS Class Selector The class selector selects HTML elements</u> with a specific class attribute. It is used with a period character. (full stop symbol) followed by the class name.
 - 4. <u>CSS Universal Selector The universal selector is used as a wildcard character.</u> It selects all the elements on the pages.

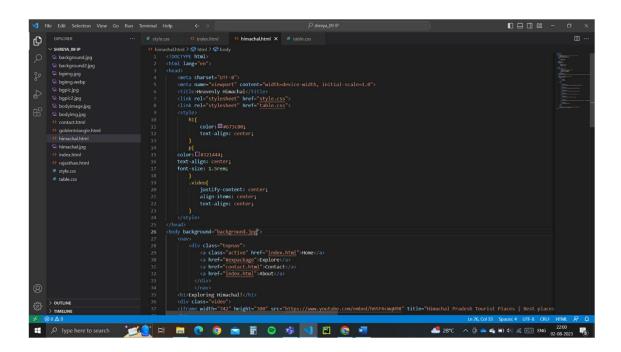
- 5. <u>CSS Group Selector</u> The grouping selector is used to select all the elements with the same style definitions. Grouping selector is used to minimize the code. Commas are used to separate each selector in grouping.
- <u>CSS Pseudo Classes:</u> A Pseudo class in CSS is used to define the special state of an element. It can be combined with a CSS selector to add an effect to existing elements based on their states. For Example, changing the style of an element when the user hovers over it, or when a link is visited. All of these can be done using Pseudo Classes in CSS.
 - 1. :active It is used to add style to an active element.
 - 2. <u>:hover It</u> adds special effects to an element when the user moves the mouse pointer over the element.
 - 3. :link It adds style to the unvisited link.
 - 4. :visited It adds style to a visited link.
 - 5. <u>:lang It is used to define a language to use in a specified element.</u>
 - 6. <u>:focus It</u> selects the element which is focused by the user currently.
 - 7. <u>:first-child It adds special effects to an element, which is the first child of another element.</u>
- <u>Pseudo elements properties:</u> A pseudo-class can be defined as a keyword which is combined to a selector that defines the special state of the selected elements. Unlike the pseudo-classes, the pseudo-elements are used to style the specific part of an element, whereas the pseudo-classes are used to style the element.
 - 1. ::first-letter (:first-letter)- It selects the first letter of the text.
 - 2. :: first-line (: first-line)- It styles the first line of the text.
 - 3. <u>::before (:before)-</u> It is used to add something before the element's content.
 - 4. <u>::after (:after)-</u> It is used to add something after the element's content.
 - 5. <u>::selection-</u> It is used to select the area of an element that is selected by the user.

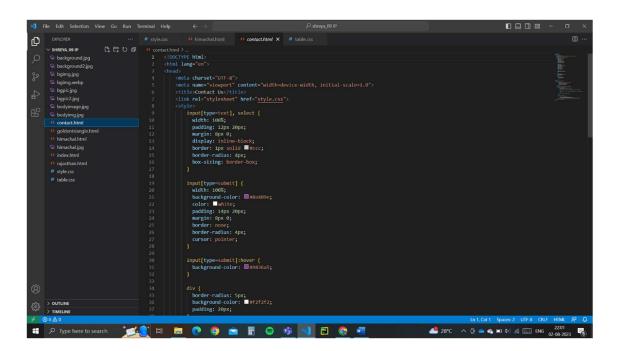
<u>Conclusion:</u> This experiment highlighted the indispensable role of CSS in modern web development, underlining its capacity to empower designers and developers to create visually appealing, accessible, and efficient websites. The insights gained from this experiment contribute to the continuous evolution and

improvement of CSS techniques, paving the way for more innovative and user-friendly web experiences in the future.

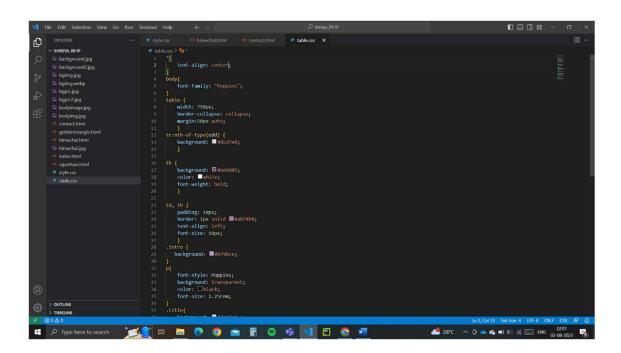
Code:





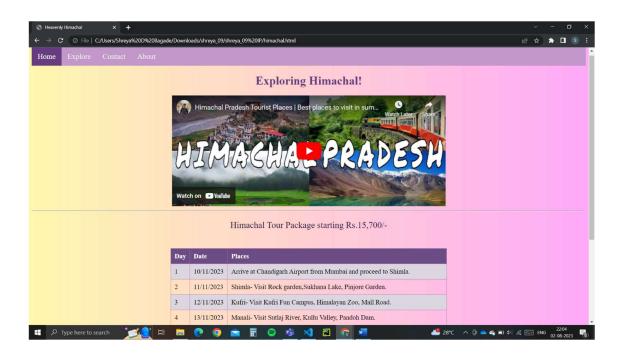


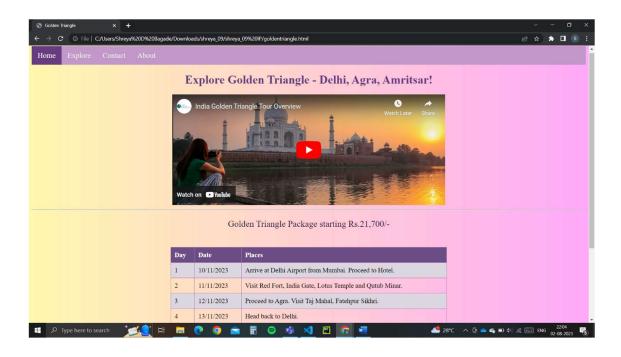
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| Time | Color | Selection | Vew | Color | Run | Imminute | Implement | Pathway | Path
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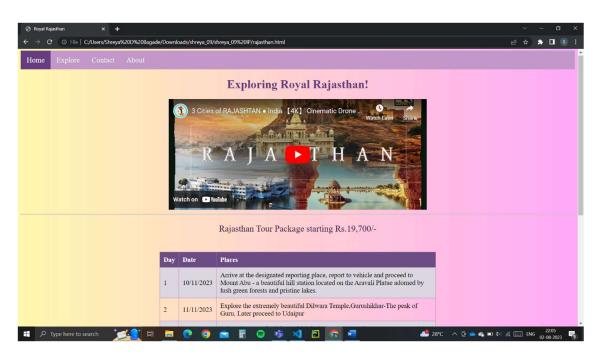


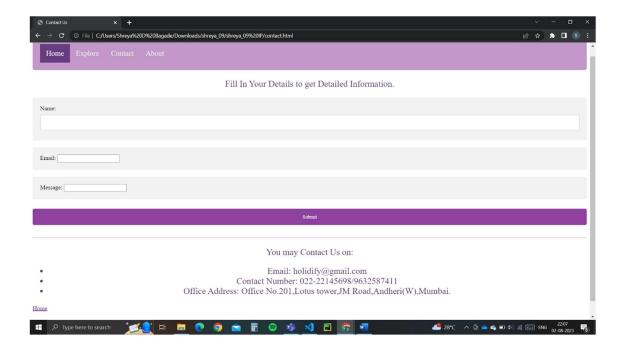
Output:











<u>Lab Outcome:</u> LO2- To expose students to CSS for formatting web pages.