Assignment 02

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

LO2: To expose students to CSS for formatting web pages.

Theory:

1. Three Ways to Insert CSS

- a) Inline: Inline CSS is added directly to an HTML element using the style attribute. It affects only that specific element.
- b) Internal: Internal CSS is placed within the <style> tags in the <head> section of an HTML document. It affects elements throughout the document.
- c) External: External CSS is placed in a separate .css file and linked to the HTML document using the link> tag in the <head> section. It allows for better separation of concerns and reusability of styles across multiple pages.

2. CSS Font Properties

- a) font-family: Names the font(s) that will be used for the text. It could be a list of font names or a general font family like "sans-serif", "serif", or "monospace".
- b) font-size: determines the text's size. It can be specified in terms of percentages, em units, pixels, etc.
- c) font-style: Specifies the style of the font, like "normal", "italic", or "oblique".
- d) color: Sets the color of the text.

3. CSS Text Properties

- a) text-align: horizontal alignment of the text within its container.
- b) text-decoration: gives text graphic elements like underlining, overlining, or linethrough.
- c) text-transform: alters the text's capitalisation.

4. Table Properties

- a) border-collapse: Specifies whether table borders should be collapsed into a single border or separated.
- b) border: Sets the border properties for table elements, including width, style, and color.
- c) padding: Sets the space between the content and the border inside table cells.
- d) text-align: Aligns the content of table cells horizontally.
- e) vertical-align: Aligns the content of table cells vertically.
- f) width: Sets the width of the table or table cells.

5. List Properties

- a) list-style-type: Specifies the style of the list item marker (bullet, number, etc.).
- b) list-style-image: Sets an image as the list item marker.
- c) list-style-position: Determines whether the list item marker appears inside or outside the content flow.
- d) list-style: Shorthand for specifying all list-related properties in one declaration.

Background

- a) background-color: Sets the background color of an element.
- b) background-image: Sets an image as the background of an element.
- c) background-repeat: Specifies how the background image should repeat (repeat, repeat-x, repeat-y, no-repeat).

CSS Selectors

- a) Universal Selector (*): Targets all elements on the page.
- b) Type Selector (Element Selector): Targets elements based on their HTML tag names, e.g., p, h1, div.
- c) Class Selector (.classname): Targets elements with a specific class attribute, e.g., .container, .btn.
- d) ID Selector (#idname): Targets a single element with a specific ID attribute, e.g., #header, #section1.
- e) Descendant Selector (Whitespace): Targets elements that are descendants of another element, e.g., ul li, div p.
- f) Child Selector (>): Targets direct children of an element, e.g., ul > li, div > p.
- g) Adjacent Sibling Selector (+): Targets an element that immediately follows another element, e.g., h2 + p.
- h) General Sibling Selector (\sim): Targets elements that are siblings of another element, e.g., h2 \sim p.
- i) Attribute Selector ([attr=value]): Targets elements with a specific attribute and value, e.g., [type="submit"].

8. Pseudo Classes

- a) :hover: Applies styles when an element is being hovered over by the mouse pointer.
- b) :active: Applies styles when an element is being clicked or activated.
- c) :focus: Applies styles when an element gains focus (e.g., when clicked or tabbed into).
- d) :visited: Applies styles to visited links. (Note: Limited for security reasons)
- e) :nth-child(n): Selects elements based on their position within a parent container.
- f) :first-child: Selects the first child element of its parent.
- g) :last-child: Selects the last child element of its parent.
- h) :not(selector): Negates the selection of elements that match the specified selector.

9. Pseudo Elements

a) ::before: Inserts content before the selected element (requires content property).

- b) ::after: Inserts content after the selected element (requires content property).
- c) ::first-line: Selects the first line of text within an element.
- d) ::first-letter: Selects the first letter of text within an element.
- e) ::selection: Applies styles to the portion of text selected by the user.
- f) ::placeholder: Targets input fields' placeholder text.

CSS FILE CODE:

```
body {
  font-family: Arial, sans-serif;
  line-height: 1.6;
  margin: 0;
  padding: 0;
 header {
  background-color: #333;
    color: #fff;
text-align: center;
padding: 10px;
nav {
  background-color: #444;
  text-align: center;
  padding: 10px;
 nav ul {
  list-style: none;
    margin: 0;
padding: 0;
 nav ul li {
  display: inline;
  margin-right: 20px;
 nav ul li a {
  color: #fff;
  text-decoration: none;
 main {
  padding: 20px;
}
 section {
  margin-bottom: 20px;
}
 footer {
  background-color: #333;
  color: #fff;
  text-align: center;
  padding: 10px;
 .book {
  border: 1px solid #ccc;
  padding: 10px;
  margin-bottom: 10px;
    height: auto;
display: block;
margin: 0 auto 10px;
```

OTHER CODES:

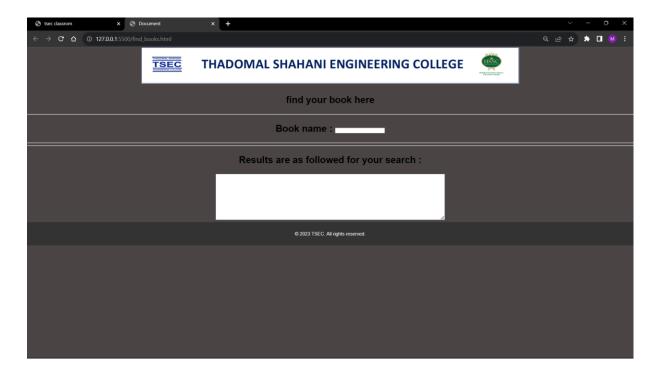
```
<!DOCTYPE html>
<html lang="en">
<head>
```

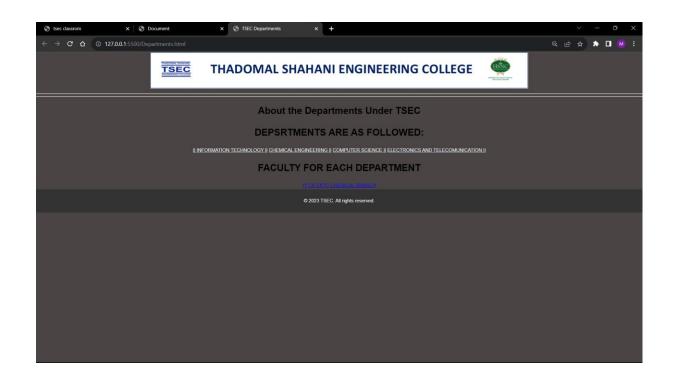
```
<img src="https://tsec.edu/wp-content/uploads/2021/11/tsec-1.png" alt="error in loading the image">
        <img src="https://www.singheducation.co.in/images/CollegeImages/6151311430809156120815054343_518a.jpg" alt="">
     Excellence: Fostering a culture of academic excellence by continuously improving the quality
of education, curriculum, and teaching methodologies. This includes encouraging faculty to engage in research and innovation
and ensuring the curriculum is aligned with industry needs.
Research and Innovation: Promoting research and innovation among students and faculty,
encouraging them to participate in research projects, publish papers, and contribute to technological advancements.
Industry Collaboration: Establishing strong ties with industries and businesses to provide
students with exposure to real-world challenges, internships, and placement opportunities. Collaborative projects with
industries can also help in addressing practical problems.
         Development: Focusing on the holistic development of students by providing various co-
curricular and extracurricular activities, including workshops, seminars, sports, cultural events, and entrepreneurship
programs.
         Development: Investing in modern infrastructure and facilities to create a conducive
learning environment for students and faculty, including well-equipped laboratories, libraries, and research centers.
Entrepreneurship and Startups: Encouraging and supporting student entrepreneurship and startup initiatives, fostering an entrepreneurial mindset, and providing resources to nurture business ideas.
        Social Outreach and Community Engagement: Engaging in community development initiatives and
social outreach programs to contribute positively to society and address local challenges through engineering solutions.
        International Collaborations: Pursuing partnerships with foreign universities and
institutions to facilitate student and faculty exchange programs, joint research projects, and exposure to global
perspectives.
        Accreditation and Recognition: Striving for accreditation from recognized accreditation
bodies to ensure the college meets the required academic standards and benchmarks.
        Alumni Engagement: Strengthening connections with alumni and involving them in mentoring,
guest lectures, and industry interactions to facilitate knowledge-sharing and networking opportunities
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```

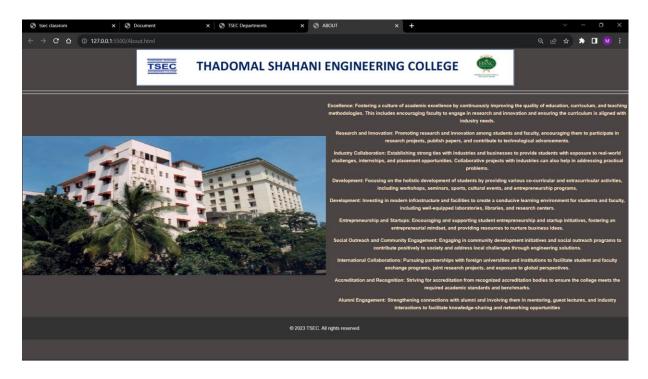
OUTPUT:

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CONCLUSION:

The web application developed in Assignment 1 has been greatly enhanced using CSS and CSS3 features. The strategic implementation of CSS properties such as color, background, font, table, and list styles has not only improved the visual appeal but also enhanced the overall user experience. The careful and creative use of these CSS features has contributed to creating a compelling and attractive web application that is not only visually appealing but also userfriendly and efficient.