

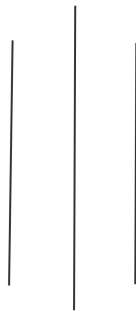
NEPAL COLLEGE OF INFORMATION TECHNOLOGY

Balkumari, Lalitpur



A Lab Report On

Subject:- Web Technology



Lab Report # 6.

Title: - - Introduction to CSS, Types of CSS and All kinds of Selectors present in CSS. Different kinds of Style with their properties.

Submitted by:-

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Semester:-II

Submitted to:-

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OBJECTIVE:

Familiarization with all kinds of Selectors and different kinds of Style with their properties present in CSS.

THEORY:

Introduction:

CSS stands for “Cascading Style Sheets”. CSS is a widely used language on the web. HTML, CSS and JavaScript are used for web designing. It helps the web designers to apply style on HTML tags.

- **Cascading:** refers to the procedure that determine which style will apply to a certain section, if you have more than one style rule.
- **Style:** how you want a certain part of your page to look. You can set things like color, margins, font etc for things like tables, paragraphs and headings.
- **Sheets:** the “sheets” are like templates, or a set of rules, for determine how the web page will look. So, CSS (all together) is a styling language-is set of rules to tell browsers how your webpage should look.

• Why to Use CSS?

CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

CSS Syntax

- A CSS rule set contains a selector and a declaration block.
Selector: Selector indicates the HTML element you want to style. It could be any tag like <h1>, <title> etc.
- Declaration Block: The declaration block can contain one or more declarations separated by a semicolon. For the above example, there are two declarations:
1. color: blue;
2. font-size: 12 px;
- Each declaration contains a property name and value, separated by a colon.
- Property: A Property is a type of attribute of HTML element. It could be color, border etc.
- Value: Values are assigned to CSS properties. In the above example, value “blue” is assigned to color property.

• Types of CSS (Linking style of CSS with HTML)

1. Inline CSS:

Inline CSS is used to style a specific HTML element. Add a style attribute to each HTML tag without using the selectors. Managing a website may difficult if we use

only inline CSS. However, Inline CSS in HTML is useful in some situations. We have not accessed the CSS files or to apply styles to element. An Inline style loses many of the advantages of style sheet. To use inline styles, add the style attribute to the relevant tag. The style attribute can contain any CSS property. In the following example, we have used the inline CSS in <p> and <h1> tag.

2. Internal CSS (Embedded Style):

The Internal CSS has <style> tag in the <head> section of the HTML document. This CSS style is an effective way to style single pages. Using the CSS style for multiple web pages are time-consuming because we require placing the style on each web page. We can use the internal CSS by using the following steps:

- i. Firstly, open the HTML page and locate the <head>
- ii. Put the following code after the <head>
- iii. Add the rules of CSS in the new line.
- iv. Close the style tag.

3. External CSS

In external CSS, we link the web pages to the external .css file. It is created by text editor. The CSS is more efficient method for styling a website. By editing the .css file, we can change the whole site at once. To use the external CSS, follow the steps, given below:

- An external style sheet can be written in any text editor.
- Your style sheet should be saved with a .css extension.

Eg `hr{ color : blue; } p{ margin-left : 20px; } body{ background-image url("images/back40.gif"); }`

• CSS simple basic selectors

1. The CSS element Selector

The element selector selects HTML elements based on the element name.

Example: Here, all <p> elements on the page will be center-aligned, with a red text color:

```
p {
text-align: center;
color: red;
}
```

2. The CSS id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element! To select an element with a specific id, write a hash (#) character, followed by the id of the element.

```
#para1 {  
text-align: center;  
color: red;  
}
```

3. The CSS class Selector

The class selector selects HTML elements with a specific class attribute. To select elements with a specific class, write a period (.) character, followed by the class name.

```
.center{  
text-align: center;  
color: red;  
}
```

You can also specify that only specific HTML elements should be affected by a class.

```
p.center{  
text-align: center;  
color: red;  
}
```

4. The CSS Universal Selector

The universal selector (*) selects all HTML elements on the page.

```
* {  
text-align: center;  
color: blue;  
}
```

5. The CSS Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions. Look at the following CSS code (the h1, h2, and p elements have the same style definitions):

```
h1 {  
text-align: center;  
color: red;  
}  
h2 {  
text-align: center;  
color: red;  
}  
p {  
text-align: center;  
color: red;  
}
```

are equivalent to:

```
h1, h2, p {
text-align: center;
color: red;
}
```

Question 1): Write an HTML & CSS code to demonstrate the usage of inline, Internal & External CSS.

Code:

```
lab6 > Q1.html > html > head > style
4   <title>Question 1</title>
5   <link rel="stylesheet" href="Q1.css">
6   <style>
7       #A{
8           background-color: black;
9           color: white;
10          border: 2px solid black;
11          font-family: cursive;
12      }
13  </style>
14  </head>
15  <body>
16      <p style="background-color: antiquewhite; color: brown; border: 2px dotted grey;">
17          This is designed using the inline css. <br>
18          Lorem ipsum dolor sit amet consectetur adipisicing elit.
19          Quaerat cum labore cupiditate officiis expedita molestias
20          explicabo excepturi dolorem harum corporis facilis nisi
21          porro vitae unde adipisci quisquam ab, id ratione!
22      </p>
23      <p id="A">This is designed using the internal CSS where we design
24          it using style tag in head part and define the tags and attributes. <br>
25          Lorem ipsum dolor sit amet consectetur adipisicing elit.
26          Illo, aspernatur quasi commodi excepturi in laborum aliquam?
27          Dolore eveniet neque, eum nobis nulla eius ea consectetur
28          assumenda atque laboriosam officiis nesciunt.</p>
29      <p id="B">
30          This designed using the external css. In this type we use an
31          external css link where we define the styles. <br>
32          Lorem ipsum dolor sit amet consectetur adipisicing elit.
33          Incidunt, temporibus expedita. Tempora esse non, nobis ducimus
34          facere porro repellat, quisquam laudantium iure alias eaque
35          voluptatem officia eum explicabo! Non, magni!
36      </p>
37  </body>
38  </html>
39

lab6 > # Q1.css > #B
1  #B{
2      border:2px dashed red;
3      color: blue;
4      font-family: 'Times New Roman', Times, serif;
5  }
```

Output:

This is designed using the inline css.

Lorem ipsum dolor sit amet consectetur adipisicing elit. Quaerat cum labore cupiditate officiis expedita molestias explicabo excepturi dolorem harum corporis facilis nisi porro vitae unde adipisci quisquam ab, id ratione!

This is designed using the internal CSS where we design it using style tag in head part and define the tags and attributes.

Lorem ipsum dolor sit amet consectetur adipisicing elit. Illo, aspernatur quasi commodi excepturi in laborum aliquam? Dolore eveniet neque, eum nobis nulla eius ea consectetur assumenda atque laboriosam officiis nesciunt.

This designed using the external css. In this type we use an external css link where we define the styles. Lorem ipsum dolor sit amet consectetur adipisicing elit. Incidunt, temporibus expedita. Tempora esse non, nobis ducimus facere porro repellat, quisquam laudantium iure alias eaque voluptatem officia eum explicabo! Non, magni!

Question 2): Write a program to Use different font, styles: In the style definition you define how each selector should work (font, color etc.). Then in the body of your pages, you refer to these selectors to activate the styles. (All selector must be done)

Code:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <title>2</title>
5 <style>
6 *{
7   background-color: #antiquewhite;
8   border: 3px dashed red;
9   margin: 2px;
10 }
11 #ID{
12   font-family: cursive;
13   color: red;
14   border: 2px solid blue ;
15 }
16 .Class{
17   font-family: 'Times New Roman', Times, serif;
18   color: blue;
19   border: 2px solid black;
20 }
21 p{
22   color: blueviolet;
23   font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
24 }
25 </style>
26 </head>
27 <body>
28 <p>This is element </p>
29 <p id="ID">This is designed using the ID selector.</p>
30 <p class="Class">This is the class selector.</p>
31 <!-- Universal selector is used to design the whole parts at once as used above -->
32 </body>
33 </html>
```

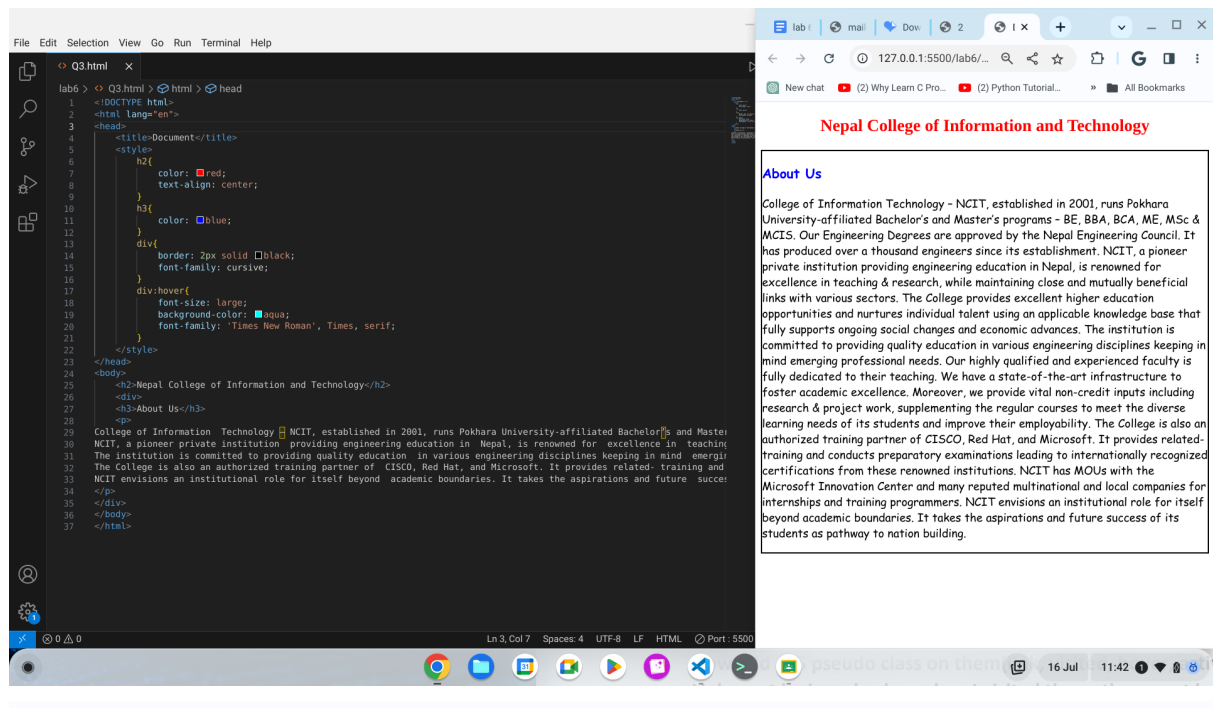
This is element

This is designed using the ID selector.

This is the class selector.

Question 3): To create a web page that displays college information using various Style sheets. (You can use your idea)

Code:



Nepal College of Information and Technology

About Us

College of Information Technology – NCIT, established in 2001, runs Pokhara University-affiliated Bachelor's and Master's programs – BE, BBA, BCA, ME, MSc & MCIS. Our Engineering Degrees are approved by the Nepal Engineering Council. It has produced over a thousand engineers since its establishment. NCIT, a pioneer private institution providing engineering education in Nepal, is renowned for excellence in teaching & research, while maintaining close and mutually beneficial links with various sectors. The College provides excellent higher education opportunities and nurtures individual talent using an applicable knowledge base that fully supports ongoing social changes and economic advances. The institution is committed to providing quality education in various engineering disciplines keeping in mind emerging professional needs. Our highly qualified and experienced faculty is fully dedicated to their teaching. We have a state-of-the-art infrastructure to foster academic excellence. Moreover, we provide vital non-credit inputs including research & project work, supplementing the regular courses to meet the diverse learning needs of its students and improve their employability. The College is also an authorized training partner of CISCO, Red Hat, and Microsoft. It provides related- training and conducts preparatory examinations leading to internationally recognized certifications from these renowned institutions. NCIT has MOUs with the Microsoft Innovation Center and many reputed multinational and local companies for internships and training programmers. NCIT envisions an institutional role for itself beyond academic boundaries. It takes the aspirations and future success of its students as pathway to nation building.

Question 4): Create Hover.html in which include text “I live in Nepal” 6 times. Now add CSS pseudo class on them(link, visited, hover, activate). Link must be in red color, when I visited them, they must be on blue color and when I hover on them

- Color changes to yellow
- Font size changes to 150%
- Background color changes to black
- Font family changes to monospace

e) Text decoration hidden

f) Text decoration Wavy

Code:

```
lab6 > Q4.html > html > head > style
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <title>Document</title>
5    <style>
6      a:link {
7        color: red;
8      }
9      a:visited {
10       color: blue;
11     }
12     a:nth-child(1):hover {
13       color: yellow;
14     }
15     a:nth-child(4):hover {
16       font-size: 150%;
17     }
18     a:nth-child(7):hover {
19       background-color: black;
20       color: white;
21     }
22     a:nth-child(10):hover {
23       font-family: monospace;
24     }
25     a:nth-child(13):hover {
26       text-decoration: none;
27     }
28     a:nth-child(16):hover {
29       text-decoration-style: wavy;
30     }
31   </style>
32 </head>
33 <body>
34   <a href="#a">I live in Nepal</a><br><br>
35   <a href="#b">I live in Nepal</a><br><br>
36   <a href="#c">I live in Nepal</a><br> <br>
37   <a href="#d">I live in Nepal</a><br><br>
38   <a href="#e">I live in Nepal</a><br><br>
39   <a href="#f">I live in Nepal</a>
40 </body>
41 </html>
```

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[I live in Nepal](#)
[I live in Nepal](#)
[I live in Nepal](#)
[I live in Nepal](#)
[I live in Nepal](#)
[I live in Nepal](#)

Question 5): Use All pseudo elements on your Html code

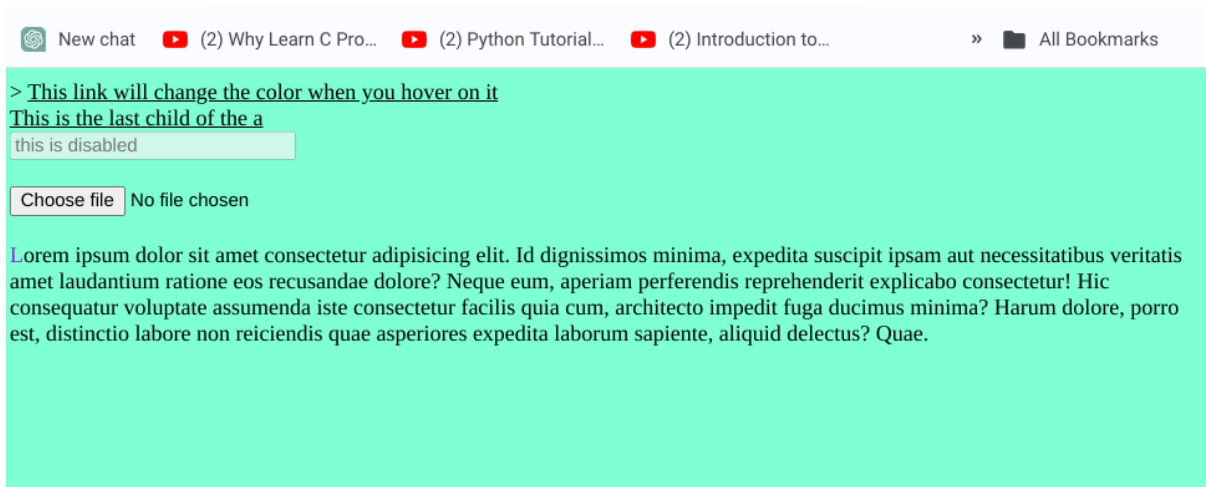
Code:


```

lab6 > <> Q5.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  >
5  |   <title>Pseudo Class</title>
6  </head>
7  <body>
8  |   <style>
9  |       body{
10 |           background-color: ■ aquamarine;
11 |       }
12 |       a.li:hover{
13 |           color: ■ red;
14 |       }
15 |       a:last-child{
16 |           color: ■ green;
17 |       }
18 |       a:link{
19 |           color: ■ black;
20 |       }
21 |       input:disabled{
22 |           color: ■ blue;
23 |       }
24 |       a:visited{
25 |           color: ■ blueviolet;
26 |       }
27 |       div::first-letter{
28 |           size: 40px;
29 |           color: ■ blueviolet;
30 |       }
31 |   </style>
32 </body>
33 <a href="#a" class="li">This link will change the color when you hover on it </a>
34 <br>
35 <a href="#1">This is the last child of the a</a>
36 <br>
37 <input type="text" placeholder="this is disabled" disabled>
38 <br>
39 <br>
40 <input type="file" name="" id="" placeholder="this is optional section" optional >
41 <br><br>
42 <div >
43 |   Lorem ipsum dolor sit amet consectetur adipisicing elit.
44 |   Id dignissimos minima, expedita suscipit ipsam aut
45 |   necessitatibus veritatis amet laudantium ratione eos
46 |   recusandae dolore? Neque eum, aperiam perferendis
47 |   reprehenderit explicabo consectetur! Hic consequatur
48 |   voluptate assumenda iste consectetur facilis quia cum,
49 |   architecto impedit fuga ducimus minima? Harum dolore,
50 |   porro est, distinctio labore non reiciendis quae asperiores
51 |   expedita laborum sapiente, aliquid delectus? Quae.
52 |
53 </div>
54 </html>

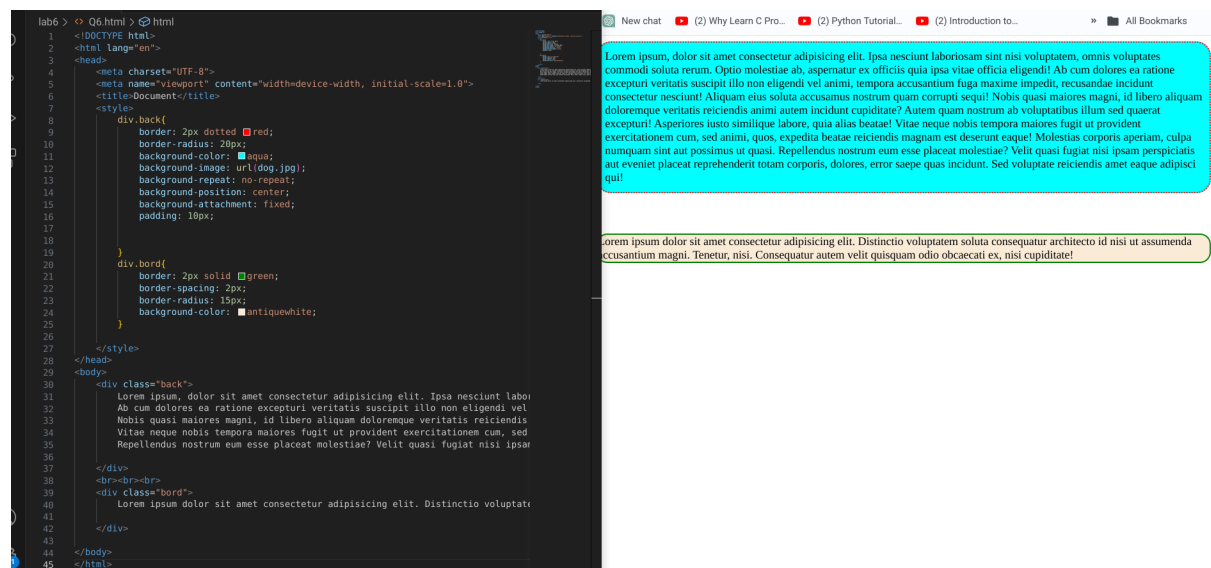
```

Output:



Question 6): Use All kinds of Background and border properties on your Html document.

Code:



Question 7): Use all kinds of Text properties of CSS on Your HTML document.

Code:


bb6 > Q7.html > html > head

```
1 <style>
2   h1{
3     text-decoration: double;
4     color: blue;
5     background-color: lightgrey;
6     text-align: center;
7   }
8   img{
9     vertical-align: bottom;
10  }
11  div{
12    text-transform: capitalize;
13  }
14  p.a{
15    letter-spacing: 20px;
16  }
17  p.b{
18    white-space: nowrap;
19    width: 200px;
20    border: 1px solid #000000;
21    overflow: scroll;
22    text-overflow: clip;
23  }
24  p{
25    text-shadow: 2px 2px red;
26  }
27 </style>
28 </head>
29 <body>
30   <h1>These are the text properties</h1>
31   <br>
32   h1:img src="download.jpeg" alt="" height="100px">Hey
33   <br>
34   <div>this made capitalized using text properties</div>
35   <br>
36   <p class="a">Hello Guys!</p>
37   <p class="b">Lorem ipsum dolor sit amet consectetur adipisicing elit. Dolor, rerum in, vitae
38   <br>
39   <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Debitis architecto vel minus voluptatem blanditiis, minus voluptate suscipit enim delectus alias tempora quasi? Sequi explicabo porro dicta
40   <br>
41   Sequi explicabo porro dicta queraat laudantium accusantium vel excepturi, culpa, ipsum sapiente numquam veniam dolor iste unde distinctio harum, ab quo
42   <br>
43   Cumque ducimus esse facilis perferendis odio distinctio nesciunt ullam libero ex error volup
44   <br>
45   Dolorem, numquam possimus neque ea excepturi sint aliquam necessitatibus reprehenderit disti
46   <br>
47   Unde voluptatum ducimus, ut nam repellendus doloremque numquam quis beatae consequuntur mole
48   <br>
49   </body>
50 </html>
```

Ln 4, Col 1 Spaces: 4 U

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These are the text properties



h1: Hey

This Made Capitalized Using Text Properties

Hello Guys!

Lorem ipsum dolor sit amet con

Lorem ipsum dolor sit amet consectetur adipisicing elit. Debitis architecto vel minus voluptatem blanditiis, minus voluptate suscipit enim delectus alias tempora quasi? Sequi explicabo porro dicta queraat laudantium accusantium vel excepturi, culpa, ipsum sapiente numquam veniam dolor iste unde distinctio harum, ab quo eveniet. Ut saepe harum vero quia, dignissimos rerum nemo? Camque ducimus esse facilis perferendis odio distinctio nesciunt ullam libero ex error voluptatum, omnis repudiandae aspernatur dolorem molestias repellat ipsa incidunt necessitatibus voluptatem officia maiores velit suscipit maxime! Ex, qui! Dolorem, numquam possimus neque ea excepturi sint aliquam necessitatibus reprehenderit distinctio eligendi ducimus ratione a fuga, dicta eum voluptatum deserunt illum voluptatem consequuntur eos consequatur cupiditate. Ea sunt earum quod? Unde voluptatum ducimus, ut nam repellendus doloremque numquam quis beatae consequuntur molestias quo temporibus recusandae delectus possimus queraat reiciendis, et sequi sit a in mollitia placeat. Libero hic in doloribus.

Question 8): Use all kinds of List Properties of CSS on your HTML document.

Code:

```
lab6 > <> Q8.html > html > body > ol > li
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7      <style>
8          ol{
9              background: blue;
10             list-style: disc;
11         }
12         ul{
13             background: grey;
14         }
15     </style>
16 </head>
17 <body>
18     <h2 style="text-align: center;"><u>Types of Memory in a Computer</u></h2>
19     <ol>
20         <li>Primary Memory</li>
21         <ol type="a">
22             <li>RAM</li>
23             <li>ROM</li>
24             <ol type="i">
25                 <li>PROM</li>
26                 <li>EPROM</li>
27                 <ul>
28                     <li>UVEEPROM</li>
29                     <li>EEPROM</li>
30                 </ul>
31             </ol>
32         </ol>
33         <li>Secondary Memory</li>
34         <ol type="a">
35             <li>Magnetic Disk</li>
36             <ul>
37                 <li>Hard Disk Drive</li>
38                 <li>Floppy Disk</li>
39             </ul>
40             <li>Magnetic Tape</li>
41         </ol>
42     </ol>
```

```

lab6 > <> Q8.html > html > body > ol > li
43     </ol>
44     <aside>
45         <h4>FULL FORM</h4>
46         <dl>
47             <dt>RAM</dt>
48             <dd>Random Access Memory</dd>
49
50             <dt>ROM</dt>
51             <dd>Read Only Memory</dd>
52
53             <dt>PROM</dt>
54             <dd>Programmable Read Only Memory </dd>
55
56             <dt>EPROM</dt>
57             <dd>Erasable Programmable Read Only Memory</dd>
58
59             <dt>EEPROME</dt>
60             <dd>Electrically Erasable Programmable Read Only Memory</dd>
61         </dl>
62     </aside>
63
64 </body>
65 </html>

```

Output:

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Types of Memory in a Computer

- Primary Memory
 - RAM
 - ROM
 - PROM
 - UVEPROM
 - EEPROM
 - EPROM
- Secondary Memory
 - MAgnetic Disk
 - Hard Disk Drive
 - Floopy Disk
 - Magnetic Tape

FULL FORM

RAM
Random Access Memory

ROM
Read Only Memory

PROM
Programmable Read Only Memory

EPROM
Erasable Programmable Read Only Memory

EEPROME
Electrically Erasable Programmable Read Only Memory

Question 9): Make Stripped table with hoverable effect.

Code:

```
lab6 > <> Q9.html > html > body > table
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7      <style>
8          table{
9              text-align: center;
10             font-family: cursive;
11             width: 100%;
12             border-collapse: collapse;
13         }
14         tr:nth-child(even){
15             background-color: aquamarine;
16         }
17     }
18     button{
19         border-radius: 14px;
20     }
21 </style>
22 </head>
23 <body>
24     <table cellpadding="3">
25         <tr>
26             <th> ID
27             |
28             <select name="" id=""></select>
29             </th>
30             <th>
31             |
32             Date
33             <select name="" id=""></select>
34             </th>
35             <th>Description
36             |
37             <select name="" id=""></select>
38             </th>
39             <th>
40             |
41             Description
42             <select name="" id=""></select>
43             </th>
44         </tr>
```

```

lab6 > <> Q9.html > <html> <body> <table> <tr> <th> <select#
47 <td>1994.09.19</td>
48 <td>code12345</td>
49 <td><button style="background-color: green;">Completed</button></td>
50 <td>$25000</td>
51 </tr>
52 <tr>
53 <td><input type="checkbox" name="" id="1">
54 <label for="1">12345</label></td>
55 <td>1994.09.19</td>
56 <td>code12345</td>
57 <td><button style="background-color: green;">Completed</button></td>
58 <td>$25000</td>
59 </tr>
60 <tr>
61 <td><input type="checkbox" name="" id="1">
62 <label for="1">12345</label></td>
63 <td>1994.09.19</td>
64 <td>code12345</td>
65 <td><button style="background-color: green;">Completed</button></td>
66 <td>$25000</td>
67 </tr>
68 <tr>
69 <td><input type="checkbox" name="" id="1">
70 <label for="1">12345</label></td>
71 <td>1994.09.19</td>
72 <td>code12345</td>
73 <td><button style="background-color: green;">Completed</button></td>
74 <td>$25000</td>
75 </tr>
76 <tr>
77 <td><input type="checkbox" name="" id="1">
78 <label for="1">12345</label></td>
79 <td>1994.09.19</td>
80 <td>code12345</td>
81 <td><button style="background-color: green;">Completed</button></td>
82 <td>$25000</td>
83 </tr>
84 <tr>
85 <td><input type="checkbox" name="" id="1">
86 <label for="1">12345</label></td>
87 <td>1994.09.19</td>
88 <td>code12345</td>
89 <td><button style="background-color: green;">Completed</button></td>
90 <td>$25000</td>
91 </tr>
92 </tr>

```

```
Q9.html x
lab6 > Q9.html > html > body > table > tr > th > select#
60      <tr>
61      <td><input type="checkbox" name="" id="1">
62      <label for="1">12345</label></td>
63      <td>1994.09.19</td>
64      <td>code12345</td>
65      <td><button style="background-color: green;">Completed</button></td>
66      <td>$25000</td>
67      </tr>
68      <tr>
69      <td><input type="checkbox" name="" id="1">
70      <label for="1">12345</label></td>
71      <td>1994.09.19</td>
72      <td>code12345</td>
73      <td><button style="background-color: green;">Completed</button></td>
74      <td>$25000</td>
75      </tr>
76      <tr>
77      <td><input type="checkbox" name="" id="1">
78      <label for="1">12345</label></td>
79      <td>1994.09.19</td>
80      <td>code12345</td>
81      <td><button style="background-color: green;">Completed</button></td>
82      <td>$25000</td>
83      </tr>
84      <tr>
85      <td><input type="checkbox" name="" id="1">
86      <label for="1">12345</label></td>
87      <td>1994.09.19</td>
88      <td>code12345</td>
89      <td><button style="background-color: green;">Completed</button></td>
90      <td>$25000</td>
91      </tr>
92      <tr>
93      <td><input type="checkbox" name="" id="1">
94      <label for="1">12345</label></td>
95      <td>1994.09.19</td>
96      <td>code12345</td>
97      <td><button style="background-color: green;">Completed</button></td>
98      <td>$25000</td>
99      </tr>
100     </table>
101
102 </body>
103 </html>
```

Output:

127.0.0.1:5500/lab6/Q9.html				
New chat (2) Why Learn C Pro... (2) Python Tutorial... (2) Introduction to... Document Maps Gmail Google Docs C++ Header files &... C++ Standard Libra... All Bookmarks				
ID	Date	Description	Status	Description
<input checked="" type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input checked="" type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000
<input type="checkbox"/> 12345	1994.09.19	code12345	Completed	\$25000