- 1]] Develop the HTML page named as "Myfirstwebpage.html". Add the following tags with relevant content.
- 1. Set the title of the page as "My First Web Page"
- 2. Within the body use the following tags:
- a) Moving text = "Basic HTML Tags"
- b) Different heading tags (h1 to h6)
- c) Paragraph
- d) Horizontal line
- e) Line Break
- f) Block Quote
- g) Pre tag
- h) Different Logical Style (, <u>, <sub>, <sup> etc.)

```
<html>
<head>
<title> My First Web Page </title>
</head>
<body>
<marquee> Basic HTML Tags </marquee>
<h1> Navkis College </h1>
<h2> Navkis College </h2>
<h3> Navkis College </h3>
<h4> Navkis College </h4>
<h5> Navkis College </h5>
<h6> Navkis College </h6>
<hr>
```

<u>Navkis College of Engineering</u>, Hassan (NCEH) is a state-of-the-art technical institution that provides an ideal atmosphere to the students to grow into world-class engineers.

blockquote> It was started in the year 2009-10 by Yagachi Education and Research Trust and is under the patronage of Navkis Group of Institutions, Bengaluru, from the year 2019-20.</br/>
blockquote>

```
<SL.NO Name USN
01 Name I 150</pre>
```

```
02 Name 2 151
03 Name 3 152
 This is subscript H<sub>2</sub>O and This is superscript A<sup>2 </sup>B
</body>
</html>
```

- 2]] Develop the HTML page named as "Table.html" to display your class time table.
- a) Provide the title as Time Table with table header and table footer, row-span and col-span etc.
- b) Provide various colour options to the cells (Highlight the lab hours and elective hours with different colours.)
- c) Provide colour options for rows.

```
<html>
<head>
</head>
<body>
<caption>Class Time Table</caption>
 <thead style="background-color:yellow">
  DAYS
   10-11
   11-12
   >12-1
   1-2
   2-3
  </thead>
  MON
    Web
```

```
Java
  DS lab
  DBMS
  Elective
  TUE
  DS
  DBMS
  Elective
  Web
 WED
  Java
  DS
  Web
  Sports
 <tfoot style="background-color:brown; color:white;">
 All The Best
 </tfoot>
</body>
</html>
```

3]] Develop an external style sheet named as "style.css" and provide different styles for h2, h3, hr, p, div, span, time, img & a tags. Apply different CSS selectors for tags and demonstrate the significance of each.

HTML Code(index.html)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Program 3</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
 <h2>karnataka</h2>
 <h3>satyameva jayate</h3>
 <hr>
 <div class="dstyle"><h2>KARUNADU...!</h2>Karnataka is a <span id="state">state</span> in
indiaBangalore is a <span>capital city</span> of karnataka
<time datetime="2024-10-14">October 14 2024</time><br>
<img src="flag.jpg"><br>
</div>
<a href="http://www.karnataka.gov.in" >karnataka website</a>
</body>
</html>
CSS Code (style.css)
h2{
  text-align: center;
  color:red;
  background-color:lightblue;
  text-transform: uppercase;
}
img{
  width: 120px;
  height: 120px;
```

```
border-radius: 100%;
}
hr{
  border:2px black solid;
}
div h2{
  color: orange;
  font-size: 20px;
  background-color: aqua;
}
h3{
  text-transform: uppercase;
  text-align: right;
  color:orange ;
}
.dstyle{
  text-align: center;
  background-color:aqua;
  border:2px black solid;
}
#state{
  color:red;
}
a:hover{
  color:red;
}
```

4]] Develop HTML page named as "registration.html" having variety of HTML input elements with background colors, table for alignment & provide font colors & size using CSS styles.

Html

<!DOCTYPE html>

```
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Program 4</title>
 <link rel="stylesheet" href="reg.css">
</head>
<body>
 <h2>registration form</h2>
 <form>
   <label>Name</label>
      <input type="text" placeholder="enter your name" required>
    <label>Email</label>
      <input type="email" placeholder="enter your email" required>
    <label >DOB</label>
      <label>Gender</label>
      <select>
         <option>Select</option>
         <option>Male</option>
         <option>Female
        </select>
```

```
<input type="submit">
     </form>
</body>
</html>
CSS
h2{
  text-transform: uppercase;
  color:black;
  text-align: center;
  padding: 1%;
}
body{
  background-color:aqua;
 font-family: Arial, Helvetica, sans-serif;
}
table{
  margin:auto;
  background-color:deepskyblue;
  padding: 5%;
  color: white;
}
input[type="text"],input[type="email"],input[type="date"],select{
  width: 150px;
  height: 18px;
}
```

```
input[type="submit"]{
  background-color:crimson;
  width: 70px;
  padding: 5px;
  color: white;
}
```

5]] Develop HTML page named as "newpaper.html" having variety of HTML semantic elements with background colors, text-colors & size for figure, table, aside, section, article, header, footer... etc.

Lab 5 HTML

```
<html>
<head>
 <meta charset="UTF-8">
 <title>Newspaper</title>
 <link rel="stylesheet" href="new.css">
</head>
<body>
 <header>
   <h1>HASSAN NEWSPAPER</h1>
 </header>
 <section>
   <aside>
     <h2>Breaking News</h2>
       <marquee direction="up" scrollamount="2">
       Nakis College Celebrated Fresher's Day
       CM Visits Hasanamba Temple
       Over 1.9 million devotees visited Hasanamba Temple in 2024
       </marquee>
   </aside>
```

```
<div class="artdiv">
    <article>
      <h2>Article 1: BELUR</h2>
        <figure><img src="belur.jpg" alt="">
        <figcaption>Belur Temple</figcaption>
      </figure>
     It is Beautiful Temple It is Beautiful Temple It is Beautiful Temple It is Beautiful Temple It is
Beautiful Temple
    </article>
    <article>
      <h2>Article 2: HALEBIDU</h2>
        <figure><img src="halebedu.jpg" alt="">
        <figcaption>Halebidu Temple</figcaption>
      </figure>
        It is Beautiful Temple It is Beautiful Temple It is Beautiful Temple It.
is Beautiful Temple
    </article>
    <article>
      <h2>Article 3: NAVKIS</h2>
        <figure><img src="navkis.jpg" alt="">
        <figcaption>Engineering College</figcaption>
      </figure>
It is a Engineering college in Hassan.It is a Engineering college in Hassan.It is a Engineering college
in Hassan.
    </article>
    </div>
    <article>
      <h2>Sports News</h2>
      Sorder - Gavaskar Trophy starts from Nov 22, 2024
      <img src="border.avif" alt="">
    </article>
  </section>
  <footer>
    © All Rights Reserved
```

```
</footer>
</body>
</html>
lab 5 CSS
header,footer
{
  background-color: purple;
  color: white;
  text-align: center;
  padding: 10px;
}
body
{
  background-color: cadetblue;
  margin: 10px;
}
section
{
  background-color: white;
  border-radius: 20px;
  padding: 10px;
  margin: 10px;
}
aside
{
  border-left: 5px solid blue;
  padding: 10px;
  margin: 5px;
  background-color: blanchedalmond;
```

```
}
aside h2
{
  color: maroon;
}
.artdiv
{
  display:flex;
  justify-content: space-evenly;
  gap:50px;
  position: relative;
  margin: auto;
  padding: 10px;
}
img
{
  max-width: 80%;
  height: 250px;
  padding: 10px;
}
article
{
  border: 2px solid;
  text-align: center;
  padding: 10px;
}
article h2
{
  background-color: crimson;
  color: white;
}
figure
```

```
{
 border-radius: 40px;
}
article:hover{
 background-color: aquamarine;
}
6]] Apply HTML, CSS and JavaScript to design a simple calculator to perform the following operations:
sum, product, difference, remainder, quotient, power, square-root and square.
lab 6 HTML (calci.html)
<html>
<head>
 <meta charset="UTF-8">
 <title>calculator</title>
 <link rel="stylesheet" href="calci.css">
</head>
<body>
 <h1>CALCULATOR</h1>
 Enter First Number
     <input type="number" id="n1"/>
   Enter Second Number
     <input type="number" id="n2">
   <button onclick="calci('s')">Sum</button>
     <button onclick="calci('d')">Difference</button>
```

<button onclick="calci('p')">Product</button>

```
<button onclick="calci('q')">Quotient</button>
   <button onclick="calci('r')">Remainder</button>
     <button onclick="calci('pw')">Power</button>
     <button onclick="calci('sr')">Square Root</button>
     <button onclick="calci('sq')">Square</button>
   <h2>Result</h2>
  <h3 id="res"></h3>
  <script src="calci.js"></script>
</body>
</html>
Lab 6 CSS (calci.css)
h1
{
  text-align: center;
  color: crimson;
}
h2
{
  text-align: center;
  color: palevioletred;
}
h3
{
  font-size: 50px;
  text-align: center;
```

```
background-color: yellow;
}
table
{
  background-color: purple;
  color: white;
  margin: auto;
  padding: 10px;
}
button
{
  width: 100%;
  padding:10px;
  background-color: crimson;
  color: white;
}
input
{
  margin: 5px;
  padding: 10px;
}
body
{
  display: grid;
  border-radius: 40px;
  box-shadow: 0 0 20px;
  width: 600px;
  height: 600px;
  text-align: center;
  margin: auto;
  margin-top: 25px;
}
```

```
Lab 6 JS (calci.js)
```

```
function calci(task)
{
  const n1 = parseFloat(document.getElementById('n1').value);
  const n2 = parseFloat(document.getElementById('n2').value);
  let output = 0;
  switch(task)
  {
    case 's': output = n1 + n2;
         break;
  case 'd': output = n1 - n2;
         break;
case 'p': output = n1 * n2;
         break;
case 'q': output = n1/n2;
         break;
case 'r': output = n1 % n2;
         break;
case 'pw': output = Math.pow(n1,n2);
         break;
case 'sr': output = Math.sqrt(n1);
         break;
case 'sq': output = Math.pow(n1,2);
         break;
  }
document.getElementById('res').innerHTML= output;
}
7]] Develop JavaScript program (with HTML/CSS) for:
a) Converting JSON text to JavaScript Object
<html>
```

```
<head>
</head>
  <body>
   <h3>Convert JSON to JavaScript Object</h3>
   <textarea rows="10" cols="70" id="input" placeholder="Enter JSON here..."></textarea>
    <br/>
   <button onclick="convert()">Convert</button>
    <div id="output"></div>
<script>
  function convert()
  {
   const jsonText = document.getElementById('input').value;
   try
   {
    const jsonObject = JSON.parse(jsonText);
    document.getElementById('output').textContent = JSON.stringify(jsonObject, null, 2);
   }
    catch (e)
      document.getElementById('output').textContent = "Invalid JSON";
    }
  }
</script>
</body>
</html>
Input:
  {"name":"tom",
  "age":10
  }
Output:
{ "name": "tom", "age": 10 }
```

b) Convert JSON results into a date

```
<html>
<head>
</head>
<body>
  <h3>Convert JSON Date to JavaScript Date</h3>
   <textarea rows="10" cols="70" id="input" placeholder='Enter JSON with a date (e.g.,
{"date":"2024-11-20T10:00:00Z"})'></textarea>
  <br/>
   <button onclick="convert()">Convert</button>
    <div id="res" class="result"></div>
<script>
  function convert() {
   const jsonText = document.getElementById('input').value;
   try {
    const jsonObject = JSON.parse(jsonText);
    if (jsonObject.date)
    {
     const date = new Date(jsonObject.date);
     document.getElementById('res').textContent = date.toString();
    }
    else
    {
     document.getElementById('res').textContent = "No date found";
    }
   }
    catch (e)
    {
    document.getElementById('res').textContent = "Invalid JSON";
    }
```

```
}
</script>
</body>
</html>
Input:
  {"date":"2024-11-20T10:00:00Z"}
Output:
  Wed Nov 20 2024 15:30:00 GMT+0530 (India Standard Time)
c) Converting From JSON To CSV and CSV to JSON
<html>
<head>
</head>
<body>
   <h3>Convert JSON to CSV</h3>
   <textarea rows="10" cols="70" id="jsonInput" placeholder='Enter JSON array here...'></textarea>
   <br/>
   <button onclick="convertJC()">Convert</button>
    <div id="csvOutput"></div>
   <h3>Convert CSV to JSON</h3>
   <textarea rows="10" cols="70" id="csvInput" placeholder='Enter CSV data here...'></textarea>
   <br/>
   <button onclick="convertCJ()">Convert</button>
   <div id="JCOutput"></div>
<script>
```

```
function convertJC() {
 const jsonText = document.getElementById('jsonInput').value;
 try {
  const jsonArray = JSON.parse(jsonText);
  if (!Array.isArray(jsonArray)) {
   document.getElementById('csvOutput').textContent = "JSON should be an array!";
   return;
  }
  const keys = Object.keys(jsonArray[0]);
  const csv = jsonArray.map(row =>
   keys.map(key => JSON.stringify(row[key] | | ")).join(',')
  );
  csv.unshift(keys.join(','));
  document.getElementById('csvOutput').textContent = csv.join('\n');
 } catch (e) {
  document.getElementById('csvOutput').textContent = "Invalid JSON!";
 }
}
function convertCJ() {
 const csvText = document.getElementById('csvInput').value;
 const lines = csvText.split('\n');
 const keys = lines[0].split(',');
 const jsonArray = lines.slice(1).map(line => {
  const values = line.split(',');
  const obj = {};
  keys.forEach((key, index) => {
   obj[key] = values[index];
  });
  return obj;
 });
 document.getElementById('JCOutput').textContent = JSON.stringify(jsonArray, null, 2);
```

```
}
</script>
</body>
</html>
Input 1 : [ { "name": "tom", "age": "10" } ]
Output 1: name,age "tom","10"
Input 2:
name,age
tom,10
Output 2: [ { "name": "tom", "age": "10" } ]
d) Create hash from string using crypto.createHash() method
<html>
<head>
</head>
  <body>
   <h3>Create Hash from String</h3>
   <textarea rows="10" cols="40"id="input" placeholder="Enter string to hash"></textarea>
    <br/> <br/>
   <button onclick="createHash()">Create Hash</button>
    <div id="result"></div>
<script>
  function createHash()
  {
   const crypto = window.crypto || window.msCrypto;
   const inputString = document.getElementById('input').value;
   if (inputString === "")
   {
```

```
document.getElementById('result').textContent = "Enter a string!";
    return;
   }
   const encoder = new TextEncoder();
   const data = encoder.encode(inputString);
   crypto.subtle.digest('SHA-256', data).then(hash =>
   {
    const hashArray = Array.from(new Uint8Array(hash));
    const hashHex = hashArray.map(byte => byte.toString(16).padStart(2, '0')).join(");
    document.getElementById('result').textContent = hashHex;
   }).catch(err =>
    {
      document.getElementById('result').textContent = "Error";
    });
  }
</script>
</body>
</html>
Input: h
Output: aaa9402664f1a41f40ebbc52c9993eb66aeb366602958fdfaa283b71e64db123
```

8]] a. Develop a PHP program (with HTML/CSS) to keep track of the number of visitors visiting the web page and to display this count of visitors, with relevant headings.

index.php

```
<?php
$n = 'sample.txt';
if (!file_exists($n))
{
    file_put_contents($n, 0);</pre>
```

```
}
$counter = (int) file_get_contents($n);
$counter++;
file_put_contents($n, $counter);
?>
<html>
<head>
  <title>Number of Visitors</title>
  <style>
    h2,.design
    {
      text-align: center;
      font-size: 200%;
      color: maroon;
      margin-top: 20px;
    }
    .design
     background-color: yellow;
     font-weight: 600;
      color:darkblue;
    }
    body
    {
      border-radius: 40px;
      box-shadow: 0 0 20px;
      margin: 50px;
    }
  </style>
</head>
<body>
```

```
<h2>Number of Visitors to this Web Page</h2>
<div class="design">
<?php echo $counter; ?>
</div>
</body>
</html>
```

8]] b. Develop a PHP program (with HTML/CSS) to sort the student records which are stored in the database using selection sort.

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "navkis";
$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect_error)
{
  die("Connection failed: " . $conn->connect_error);
}
$sql = "SELECT usn, name, marks FROM computer_science";
$result = $conn->query($sql);
$computer_science = [];
if ($result->num_rows > 0)
{
  while($row = $result->fetch_assoc())
  {
    $computer_science[] = $row;
  }
```

```
}
else
{
  echo "0 results";
}
function selectionSort(&$arr) {
  $n = count($arr);
  for (\$i = 0; \$i < \$n - 1; \$i++) {
     $minIdx = $i;
     for (\$j = \$i + 1; \$j < \$n; \$j++) {
       if (strtolower(\$arr[\$j]['name']) < strtolower(\$arr[\$minIdx]['name'])) \ \{
         $minIdx = $j;
       }
     }
     if ($minIdx != $i) {
       $temp = $arr[$i];
       $arr[$i] = $arr[$minIdx];
       $arr[$minIdx] = $temp;
    }
  }
}
selectionSort($computer_science);
$conn->close();
?>
<html>
<head>
  <title>Student Data</title>
  <style>
     h1,table
```

```
{
      text-align: center;
      color: crimson;
    }
    table
    {
      border: 1px solid navy;
      margin: auto;
      width: 75%;
      color: navy;
      font-size: 150%;
    }
    th
    {
      border: 1px solid;
      background-color: darkcyan;
      color: white;
    }
    tr:hover
    {
      background-color: navajowhite;
    }
    td
      border: 1px solid;
    }
  </style>
</head>
<body>
```

<h1>STUDENT DATA</h1>

```
<?php if (!empty($computer_science)) : ?>
    <thead>
       USN
         NAME
         MARKS
       </thead>
      <?php foreach ($computer_science as $cs) : ?>
         <?php echo $cs['usn']; ?>
          <?php echo $cs['name']; ?>
          <?php echo $cs['marks']; ?>
         <?php endforeach; ?>
      <?php else: ?>
    student data not found.
  <?php endif; ?>
</body>
</html>
```

- 9]] Develop jQuery script (with HTML/CSS) for:
- a. Appends the content at the end of the existing paragraph and list.
- b. Change the state of the element with CSS style using animate() method
- c. Change the color of any div that is animated.

index.html

```
<html>
<head>
  <title>jQuery Script Example</title>
<style>
  body
  box-shadow: 0 0 20px;
  border-radius: 20px;
  margin: 80px;
  padding: 20px;
  display:inherit;
  }
button
{
  margin: 10px;
  padding: 10px;
  background-color: crimson;
  color: white;
}
button:hover
{
  background-color: blue;
}
</style>
</head>
<body>
  <h1>jQuery Animation</h1>
 Beautiful Countries
 India
```

```
Switzerland
  <button id="one">Click to Append Country</button> <br>
  <button id="Two">Click Here to see ANIMATION</button>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <script src="script.js"></script>
</body>
</html>
Script.js
$(document).ready(function ()
  $('#one').click(function () {
    $('#para').append('. Text is Appended');
    $('#myList').append('New Place');
  });
  $('#Two').click(function ()
  {
    $(this).css('background-color', 'yellow');
    $(this).css('color', 'darkblue');
    $(this).animate({
      width: '500px',
      height: '250px',
    }, 1000, function () {
      $(this).css('height', '60px');
      $(this).css('width', '300px');
      $(this).css('background-color', 'crimson');
    });
  });
});
```

10]] Develop a JavaScript program with Ajax (with HTML/CSS) for:

a. Use ajax() method (without Jquery) to add the text content from the text file by sending ajax request.

```
<html>
<head>
  <title>AJAX with Plain JavaScript</title>
  <style>
    #output
    {
      box-shadow: 0 0 20px;
      border-radius: 20px;
      margin: 80px;
      padding: 20px;
      display:inherit;
      background-color: crimson;
      color: white;
      text-align: center;
    }
    body
    {
      text-align: center;
      padding: 20px;
    }
    button
      background-color:yellow;
    }
```

```
</style>
</head>
<body>
  <h2>Using Plain JavaScript (without jQuery)</h2>
  <button onclick="loadText()">Click Here</button>
  <div id="output"></div>
  <script>
    function loadText()
    {
      const xhr = new XMLHttpRequest();
      xhr.open('GET', 'sample.txt', true);
      xhr.onreadystatechange = function ()
      {
        if (xhr.readyState == 4 && xhr.status == 200)
           document.getElementById('output').innerText = xhr.responseText;
        }
      };
      xhr.send();
    }
  </script>
</body>
</html>
sample.txt
```

WEB TECHNOLOGY

b. Use ajax() method (with Jquery) to add the text content from the text file by sending ajax request.

```
<html>
<head>
  <title>AJAX Examples with jQuery</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <style>
    #output {
      box-shadow: 0 0 20px;
      border-radius: 20px;
      margin: 80px;
      padding: 20px;
      display:inherit;
      background-color: crimson;
      color: white;
      text-align: center;
    }
    body
    {
      text-align: center;
      padding: 20px;
    }
    button
    {
      background-color:yellow;
    }
  </style>
</head>
<body>
  <h1>AJAX Examples with jQuery</h1>
```

```
<button id="load">Click Here (With jQuery)
  <div id="output"></div>
  <script>
    $("#load").click(function()
    {
      $.ajax({
        url: "sample.txt",
        method: "GET",
        success: function(data) {
          $("#output").text(data);
        }
      });
    });
  </script>
</body>
</html>
sample.txt
WEB TECHNOLOGY
c. Illustrate the use of getJSON() method in jQuery
index.html
<html>
<head>
  <title>AJAX getJSON Example</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <style>
    button
    {
```

```
background-color: yellow;
    }
    #output {
    box-shadow: 0 0 20px;
      border-radius: 20px;
      margin: 80px;
      padding: 20px;
      display:inherit;
      background-color: crimson;
      color: white;
    }
    body
      text-align: center;
    }
  </style>
</head>
<body>
  <h1 >AJAX getJSON Example</h1>
  <button id="loadJSON">Click Here/button>
  <div id="output"></div>
  <script>
    $("#loadJSON").click(function()
    {
      $.getJSON("sample.json", function(data)
    {
        let content = "";
        data.forEach(function(item) {
          content += `${item.name} - ${item.age}`;
        });
```

```
content += "";
    $("#output").html(content);
    });
    </script>
</body>
</html>

Sample.json

[
    {"name": "Tom", "age": 10},
    {"name": "Jerry", "age": 20}
]
```

d. Illustrate the use of parseJSON() method to display JSON values.

```
<html>
<head>
<title>AJAX parseJSON Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
button
{
background-color: yellow;
}
#output
{
box-shadow: 0 0 20px;
```

```
border-radius: 20px;
      margin: 80px;
      padding: 20px;
      display:inherit;
      background-color: crimson;
      color: white;
    }
    body
    {
      text-align: center;
    }
  </style>
</head>
<body>
  <h2>Use parseJSON() to Display JSON</h2>
  <button id="loadJsonBtn">Click Here</button>
  <div id="output"></div>
  <script>
    $(document).ready(function() {
      $("#loadJsonBtn").click(function() {
        var jsonString = '{"usn": 101, "name": "tom", "marks": 75}';
        var jsonObject = $.parseJSON(jsonString); // Parses the string into a JSON object
        var output = "";
        $.each(jsonObject, function(key, value) {
           output += "" + key + ": " + value + "";
        });
        output += "";
        $("#output").html(output);
      });
    });
  </script>
```

</body>

</html>