INTERNET TECHNOLOGIES PRACTICAL FILE

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COURSE- B.SC.(HONS.) COMPUTER SCIENCE

SEMESTER- 5th(2022-23)

Q.1. Display your systems IP Address, Subnet mask using ipconfig, and find out the network address and the maximum number of systems possible on your network and range of IP addresses available to these systems.

OUTPUT

```
Administrator: Command Prompt

C:\WINDOWS\system32>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter vEthernet (Default Switch):

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::c5d2:2e2f:2e86:dd5%39
   IPv4 Address. . . . . . . . . . . : 172.27.16.1
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . :

Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::b47f:ee4a:c7f6:f992%5
   IPv4 Address. . . . . . . . . . . : 10.210.103.86
   Subnet Mask . . . . . . . . . . . : 255.254.0.0
   Default Gateway . . . . . . . . . : 10.210.0.1

Ethernet adapter Bluetooth Network Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
```

Q.2. With help of ping, check if you are connected to other systems of your network and find the route to connect to that system using tracert. List all the processes which are using ports for TCP protocol.

```
C:\WINDOWS\system32>ping canva.com

Pinging canva.com [104.17.114.17] with 32 bytes of data:
Reply from 104.17.114.17: bytes=32 time=3ms TTL=62
Reply from 104.17.114.17: bytes=32 time=4ms TTL=62
Reply from 104.17.114.17: bytes=32 time=4ms TTL=62
Reply from 104.17.114.17: bytes=32 time=3ms TTL=62

Ping statistics for 104.17.114.17:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 4ms, Average = 3ms

C:\WINDOWS\system32>tracert google.com

Tracing route to google.com [142.250.206.142]
over a maximum of 30 hops:

  1     6 ms     3 ms     3 ms  10.210.0.1
  2    27 ms     6 ms     4 ms  74.125.52.6
  3     5 ms     4 ms     4 ms  142.251.77.25
  4     4 ms     3 ms     7 ms  142.251.76.197
  5     6 ms     6 ms     4 ms  del11s21-in-f14.1e100.net [142.250.206.142]

Trace complete.
```

Administrator: Command Prompt

```
C:\WINDOWS\system32>netstat -a

Active Connections

  Proto  Local Address          Foreign Address        State
  TCP    0.0.0.0:135            DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:445            DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:2179           DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:5040           DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:5357           DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49664          DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49665          DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49666          DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49667          DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49668          DESKTOP-4RFANP6:0       LISTENING
  TCP    0.0.0.0:49669          DESKTOP-4RFANP6:0       LISTENING
  TCP    10.210.103.86:139      DESKTOP-4RFANP6:0       LISTENING
  TCP    10.210.103.86:53321    del12s07-in-f14:https   TIME_WAIT
  TCP    10.210.103.86:53322    del11s14-in-f3:https    TIME_WAIT
  TCP    10.210.103.86:53324    del11s10-in-f10:https   TIME_WAIT
  TCP    10.210.103.86:53428    a104-120-86-116:http    TIME_WAIT
  TCP    10.210.103.86:53430    20.198.119.84:https     ESTABLISHED
  TCP    10.210.103.86:53432    sd-in-f188:5228         ESTABLISHED
  TCP    10.210.103.86:53447    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53450    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53451    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53452    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53453    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53454    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53455    13.107.21.200:https     TIME_WAIT
  TCP    10.210.103.86:53458    13.107.21.200:https     ESTABLISHED
  TCP    10.210.103.86:53463    104.43.52.220:https     TIME_WAIT
  TCP    10.210.103.86:53465    13.107.246.254:https    ESTABLISHED
  TCP    10.210.103.86:53466    52.113.196.254:https    ESTABLISHED
  TCP    10.210.103.86:53467    204.79.197.239:https    ESTABLISHED
  TCP    10.210.103.86:53468    52.123.129.254:https    ESTABLISHED
  TCP    10.210.103.86:53469    204.79.197.222:https    ESTABLISHED
  TCP    10.210.103.86:53488    8.241.139.254:http      ESTABLISHED
  TCP    10.210.103.86:53489    a23-49-78-32:http       ESTABLISHED
  TCP    10.210.103.86:53490    8.241.139.254:http      ESTABLISHED
  TCP    127.0.0.1:1001         DESKTOP-4RFANP6:0       LISTENING
  TCP    127.0.0.1:10000        DESKTOP-4RFANP6:0       LISTENING
  TCP    127.0.0.1:58573        DESKTOP-4RFANP6:0       LISTENING
```

```
 TCP    127.0.0.1:10000        DESKTOP-4RFANP6:0        LISTENING
 TCP    127.0.0.1:58573        DESKTOP-4RFANP6:0        LISTENING
 TCP    172.27.16.1:139        DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:135               DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:445               DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:2179              DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:5357              DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49664             DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49665             DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49666             DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49667             DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49668             DESKTOP-4RFANP6:0        LISTENING
 TCP    [::]:49669             DESKTOP-4RFANP6:0        LISTENING
 UDP    0.0.0.0:53             *:*
 UDP    0.0.0.0:3702           *:*
 UDP    0.0.0.0:3702           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5353           *:*
 UDP    0.0.0.0:5355           *:*
 UDP    0.0.0.0:50171          *:*
 UDP    0.0.0.0:51076          *:*
 UDP    0.0.0.0:52702          *:*
 UDP    0.0.0.0:53866          *:*
 UDP    0.0.0.0:54824          *:*
 UDP    0.0.0.0:55002          *:*
 UDP    0.0.0.0:55337          *:*
 UDP    0.0.0.0:55877          *:*
 UDP    0.0.0.0:55952          *:*
 UDP    0.0.0.0:56385          *:*
 UDP    0.0.0.0:56608          *:*
 UDP    0.0.0.0:56738          *:*
 UDP    0.0.0.0:56995          *:*
 UDP    0.0.0.0:58213          *:*
 UDP    0.0.0.0:58235          *:*
 UDP    0.0.0.0:58604          *:*
 UDP    0.0.0.0:58605          *:*
 UDP    0.0.0.0:58981          *:*
```

```
Administrator: Command Prompt

UDP    0.0.0.0:58604                    *:*
UDP    0.0.0.0:58605                    *:*
UDP    0.0.0.0:58981                    *:*
UDP    0.0.0.0:60785                    *:*
UDP    0.0.0.0:62631                    *:*
UDP    0.0.0.0:62921                    *:*
UDP    0.0.0.0:62924                    *:*
UDP    0.0.0.0:64071                    *:*
UDP    0.0.0.0:64661                    *:*
UDP    0.0.0.0:64687                    *:*
UDP    0.0.0.0:65007                    *:*
UDP    0.0.0.0:65514                    *:*
UDP    10.210.103.86:137                *:*
UDP    10.210.103.86:138                *:*
UDP    10.210.103.86:1900               *:*
UDP    10.210.103.86:50266              *:*
UDP    127.0.0.1:1900                   *:*
UDP    127.0.0.1:49664                  *:*
UDP    127.0.0.1:50267                  *:*
UDP    172.27.16.1:67                   *:*
UDP    172.27.16.1:68                   *:*
UDP    172.27.16.1:137                  *:*
UDP    172.27.16.1:138                  *:*
UDP    172.27.16.1:1900                 *:*
UDP    172.27.16.1:50265                *:*
UDP    [::]:3702                        *:*
UDP    [::]:3702                        *:*
UDP    [::]:5353                        *:*
UDP    [::]:5353                        *:*
UDP    [::]:5353                        *:*
UDP    [::]:5353                        *:*
UDP    [::]:5353                        *:*
UDP    [::]:5355                        *:*
UDP    [::]:55953                       *:*
UDP    [::]:58606                       *:*
UDP    [::1]:1900                       *:*
UDP    [::1]:50264                      *:*
UDP    [fe80::b47f:ee4a:c7f6:f992%5]:1900    *:*
UDP    [fe80::b47f:ee4a:c7f6:f992%5]:50263   *:*
UDP    [fe80::c5d2:2e2f:2e86:dd5%39]:1900    *:*
UDP    [fe80::c5d2:2e2f:2e86:dd5%39]:50262   *:*
```

Q.3. Create an HTML page that shows information about you, your course, hobbies, address, and your plans. Use CSS for styling of HTML page so that it looks nice.

Code :

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

<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>About me</title>
    <link rel="stylesheet" href="./Q3_index.css" />
</head>

<body>
    <header class="tophead">
        <p class="tophead-intro">Hello People, this is</p>
        <h1 class="tophead-heading GradientText">Nitish Kumar</h1>
    </header>
    <section class="about-section">
        <h1>About me</h1>
        <p>
            I'm a final year student of Bsc (Hons.) Computer Science at Ramanujan College, University of Delhi.
        </p>
    </section>

    <section class="hobbies-section">
        <h1>My Hobbies</h1>
        <ul>
            <li> Reading Books </li>
            <li> Learn about Psychology & Neurological behaviour </li>
            <li> Watching Movies & Anime </li>
            <li> Gardening </li>
        </ul>
    </section>

    <section class="course-section">
        <h1>My Course</h1>
        <p>
            <br>Things that I have learnt so far:
        <div class="course-list">
            <ul>
                <li>C++        
                    <progress value="50" max="100">
                </progress></li>
```

```html
                    <li>Java     
                        <progress value="30" max="100">
                    </progress> </li>
                    <li>DSA      
                        <progress value="40" max="100">
                    </progress></li>
                    <li>Python    
                        <progress value="50" max="100">
                    </progress></li>
                    <li>R        
                        <progress value="40" max="100">
                    </progress></li>
                </ul>
            </div>
            </p>
        </section>

        <section class="plan-section">
            <h1>My Plans</h1>
            <p>Nothing !!! &#x1F61C;</p>
        </section>

        <footer class="content-footer">
            <p>Follow for more updates:</p>
            <ul class="social">
                <li>
                    <a class="css-is-deranged" href="#">
                        Linkedin
                    </a>
                </li>
                <li>
                    <a class="css-is-deranged" href="#">
                        Instagram
                    </a>
                </li>
                <li>
                    <a class="css-is-deranged" href="#">
                        GitHub
                    </a>
                </li>
            </ul>
        </footer>
</body>

</html>
```

CSS:

```css
.GradientText{
    background: linear-gradient(to left, indigo, rgb(223, 20,
20), rgb(20, 240, 42));
    -webkit-background-clip: text;
```

```css
        -webkit-border-image: auto;
        -webkit-text-fill-color: transparent;
    }

  .GradientText:hover{
        background: linear-gradient(to bottom right, #22f13ad9,
#712cbbd9, #f46e07);
        -webkit-background-clip: text;
        -webkit-border-image: auto;
        -webkit-text-fill-color: transparent;
    }

  body {
    color: #902222;
    font-size: 1em;
    font-family: "Open Sans", "Helvetica Neue", sans-serif;
  }


  .tophead-intro {
    margin-bottom: 0.1em;
    font-family: "Gentium Book Basic", Georgia, serif;
    font-size: 2em;
  }

  .tophead-heading {
    color: #f1c863;
    margin-top: -0.2em;
    font-family: "Open Sans", "Helvetica Neue", sans-serif;
    font-weight: bold;
    font-size: 6em;
    letter-spacing: -0.02em;
    text-transform: uppercase;
  }

  .about-section,
  .hobbies-section,
  .course-section,
  .plan-section {
    max-width: 38em;
    margin-left: auto;
    margin-right: auto;
    margin-top: 2em;
  }

  .about-section > p,
  .hobbies-section > p,
  .course-section,
  .plan-section > p,
  .content-footer > p {
    font-weight: 300;
    letter-spacing: 0.05em;
  }
```

```css
section > h1 {
  margin-top: 2em;
}

.content-footer,
.tophead-heading,
.tophead-intro {
  text-align: center;
  margin-top: 2em;
}

.tophead {
  display: -moz-box;
  background-size: cover;
  background-repeat: no-repeat;
  border-radius: 10;
  border: 12pt #1c9a3c;
  border-style: groove;
}

.tophead-intro {
  margin-bottom: 0.1em;
  font-family: "Gentium Book Basic", Georgia, serif;
  font-size: 2em;
}

.tophead-heading {
  margin-top: -0.2em;
  font-family: "Open Sans", "Helvetica Neue", sans-serif;
  font-weight: bold;
  font-size: 6em;
  letter-spacing: -0.02em;
  text-transform: uppercase;
}
.about-section > p,
.hobbies > p,
.content-footer > p {
  font-weight: 300;
  letter-spacing: 0.05em;
}

h2 {
  font-family: "Gentium Book Basic", Georgia, serif;
  font-size: 1.2em;
  font-weight: bold;
}

.about-section,
.hobbies-section,
.course-section,
.plan-section {
  max-width: 38em;
```

```css
    margin-left: auto;
    margin-right: auto;
    margin-top: 2em;
  }
  .content-footer {
    margin: 50px 0;
    padding: 20px 0;
    text-align: center;
    background-image: linear-gradient(to left top, rgb(114, 17,
183, 0.7), rgb(173, 15, 28),rgb(24, 40, 191));
    border: 1px dashed black;
    border-radius: 15px;
  }
  .social > li {
    display: inline-block;
    margin: 0 5px;
  }
  .content-footer > p {
    color: #f7ede1;
  }
  a {
    font-weight: bold;
    text-decoration: none;
    color: rgb(248, 244, 250);
  }

  a:hover{
    color: chartreuse;
  }

  @media only screen and (max-width: 500px) {
    .tophead {
      padding: 3em 0;
    }

    .tophead-intro{
        font-size: 2em;
    }
    .tophead-heading {
      font-size: 3em;
    }
    .content-footer {
      padding: 2em 2.5em;
    }
  }

  .content-footer:hover{
    background-image: linear-gradient(to left,red,green, yellow);
  }
```

OUTPUT:
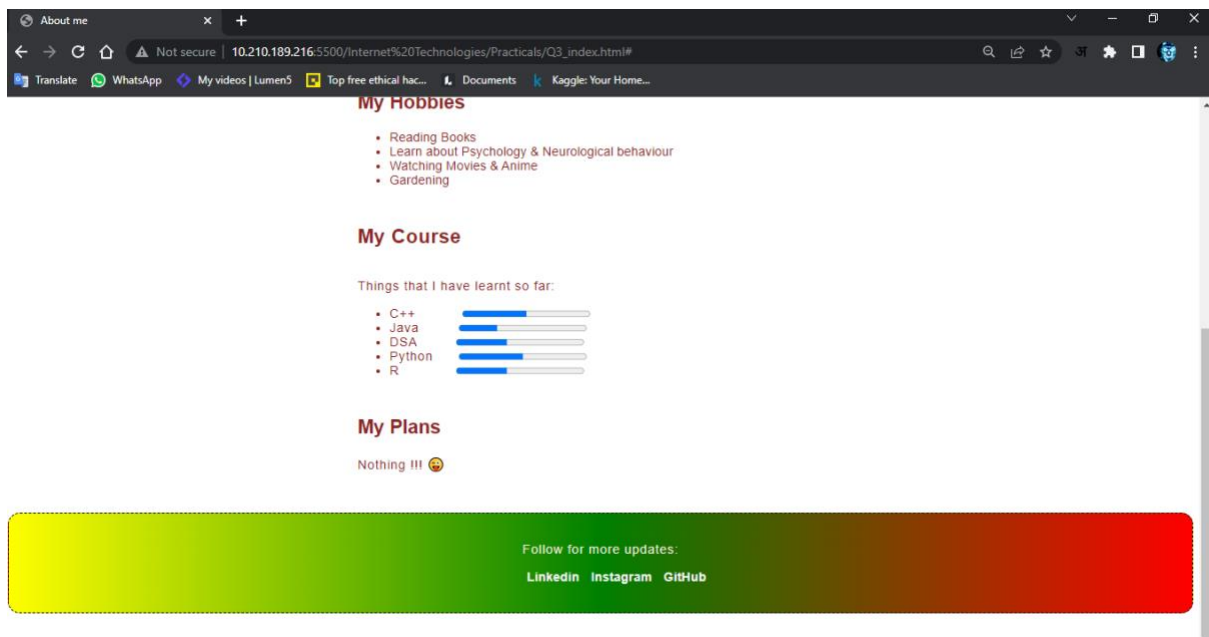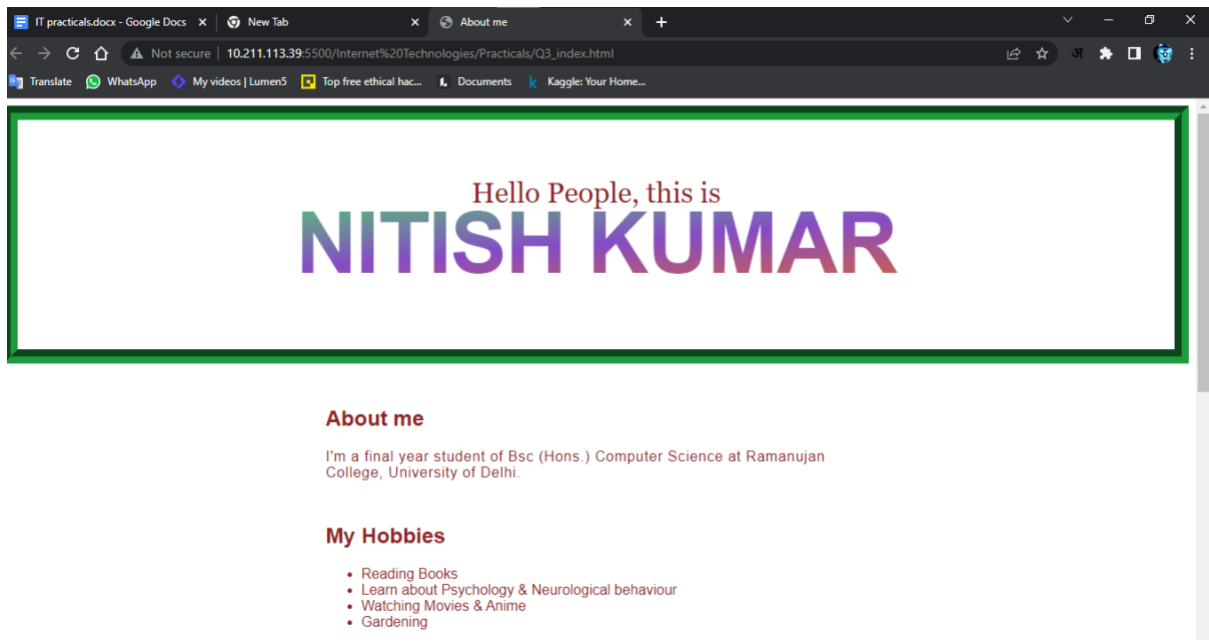
Q.4. Create an HTML page with the sole purpose to show multiplication tables of
2 to 10 (row-wise)created by JavaScript. Initially, the page is blank. With help
of setInterval function print a row every 5 seconds in different colors and
increasing font size.

Code :

```html
<!DOCTYPE html>
<html>
<head>
 <title>Practical 4</title>
 <meta charset="utf-8">
 <style type="text/css">
  table{
    border: 1px solid black;
    border-collapse: collapse;
    width: 80%;
    margin: auto;
  }
  td,th{
    border: 1px solid black;
    padding: 5px;
    /* border-collapse: collapse; */
  }
  .center{
    text-align: center;
  }
 </style>
</head>
<body>
 <h1>Printing Table from 2 to 10</h1>
 <table class="center" id="content">
 </table>
 <script type="text/javascript">
  function getRandomColor() {
    var letters = '0123456789ABCDEF';
    var color = '#';
    for (var i = 0; i < 6; i++) {
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }
```

```javascript
    var tbl = document.getElementById('content');
    var number = 2;
    var abc = setInterval(printrow,5000);

    function printrow(){
      if (number == 10)
      {
        clearInterval(abc);
      }
      var result = "";
      for(var i = 1; i<= 10; i++){
        result = result + "<td>"+ number + "*" + i + "=" + number * i+"</td>";
      }
      number++;
      var row = document.createElement('tr');
      row.style.color= getRandomColor();
      row.style.fontSize = (number+10)+"px";
      row.innerHTML=result;
      tbl.append(row);

    }
  </script>

</body>
</html>
```

OUTPUT:

Printing Table from 2 to 10

2*1=2	2*2=4	2*3=6	2*4=8	2*5=10	2*6=12	2*7=14	2*8=16	2*9=18	2*10=20
3*1=3	3*2=6	3*3=9	3*4=12	3*5=15	3*6=18	3*7=21	3*8=24	3*9=27	3*10=30
4*1=4	4*2=8	4*3=12	4*4=16	4*5=20	4*6=24	4*7=28	4*8=32	4*9=36	4*10=40
5*1=5	5*2=10	5*3=15	5*4=20	5*5=25	5*6=30	5*7=35	5*8=40	5*9=45	5*10=50
6*1=6	6*2=12	6*3=18	6*4=24	6*5=30	6*6=36	6*7=42	6*8=48	6*9=54	6*10=60
7*1=7	7*2=14	7*3=21	7*4=28	7*5=35	7*6=42	7*7=49	7*8=56	7*9=63	7*10=70
8*1=8	8*2=16	8*3=24	8*4=32	8*5=40	8*6=48	8*7=56	8*8=64	8*9=72	8*10=80
9*1=9	9*2=18	9*3=27	9*4=36	9*5=45	9*6=54	9*7=63	9*8=72	9*9=81	9*10=90
10*1=10	10*2=20	10*3=30	10*4=40	10*5=50	10*6=60	10*7=70	10*8=80	10*9=90	10*10=100

Q.5. Create an HTML page with a paragraph written on it and under which 9 buttons are placed in a 3X3 grid. The first row is for buttons labeled with colors names Red, Green, and Blue, the second row with numbers 10, 20, 30, and the third row with different font names. Click event of each of the buttons should make the appropriate change in the style of the paragraph.

Code

Html

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

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Grid</title>
    <link rel="stylesheet" href="practical4b.css">
</head>

<body>
    <p> Lorem, ipsum dolor sit amet consectetur adipisicing elit. Delectus impedit fuga
optio. Eveniet eligendi saepe ad inventore, magnam repellendus maiores nobis
ipsum accusantium modi enim eos quasi ex fugit. Laboriosam! Lorem ipsum dolor sit
amet consectetur adipisicing elit. Officia eum esse suscipit cumque natus repellat ea
distinctio omnis, quod quasi minima facilis adipisci quis laboriosam ab quisquam
perferendis error! Libero? Lorem ipsum dolor, sit amet consectetur adipisicing elit.
Illo, perspiciatis vel exercitationem pariatur est repellendus amet, cupiditate illum
vitae aspernatur reprehenderit iure quis, error itaque dolore molestiae qui quod a?
Lorem ipsum dolor sit amet consectetur adipisicing elit. Aut delectus maxime
cupiditate consectetur rerum aliquid. Ex ullam natus autem vitae, dignissimos iure id
nulla, vel vero quisquam magni necessitatibus magnam. </p>

    <table>
        <tr>
            <td><button class="btn1">Red</button></td>
            <td class="vertical">
                <button class="btn2">Green</button>
            </td>
            <td><button class="btn3">Blue</button></td>
        </tr>
        <tr>
```

```html
        <td class="horizontal">
                <button class="btn4">10</button>
        </td>
        <td class="vertical horizontal">
                <button class="btn5">20</button>
        </td>
        <td class="horizontal">
                <button class="btn6">30</button>
        </td>
    </tr>
    <tr>
      <td><button class="btn7">Courier New</button></td>
      <td class="vertical">
          <button class="btn8">Franklin Gothic Medium</button>
      </td>
      <td><button class="btn9">Lucida Sans</button></td>
    </tr>
  </table>
  <script src="practical4b.js"></script>
</body>

</html>
```

CSS code

```css
td, button {
  width: 100px;
  height: 100px;
  margin: 0 auto;
}

.vertical {
  border-left: 1px solid black;
  border-right: 1px solid black;
}

.horizontal {
  border-top: 1px solid black;
  border-bottom: 1px solid black;
}

table {
  margin: auto;
```

```
}
```

Javascript code

```javascript
const button1 = document.querySelector('.btn1');
const button2 = document.querySelector('.btn2');
const button3 = document.querySelector('.btn3');
const button4 = document.querySelector('.btn4');
const button5 = document.querySelector('.btn5');
const button6 = document.querySelector('.btn6');
const button7 = document.querySelector('.btn7');
const button8 = document.querySelector('.btn8');
const button9 = document.querySelector('.btn9');
button1.addEventListener('click', function () {
    document.querySelector('p').style.color = 'red';
})
button2.addEventListener('click', function () {
    document.querySelector('p').style.color = 'green';
})
button3.addEventListener('click', function () {
    document.querySelector('p').style.color = 'blue';
})
button4.addEventListener('click', function () {
    document.querySelector('p').style.fontSize = '10px';
})
button5.addEventListener('click', function () {
    document.querySelector('p').style.fontSize = '20px';
})
button6.addEventListener('click', function () {
    document.querySelector('p').style.fontSize = '30px';
})
button7.addEventListener('click', function () {
    document.querySelector('p').style.fontFamily = 'Courier New', Courier,
monospace;
})
button8.addEventListener('click', function () {
    document.querySelector('p').style.fontFamily = 'Franklin Gothic Medium', 'Arial
Narrow', Arial, sans - serif;
})
button9.addEventListener('click', function () {
    document.querySelector('p').style.fontFamily = 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana, sans - serif;
})
```

Output

Lorem, ipsum dolor sit amet consectetur adipisicing elit. Delectus impedit fuga optio. Eveniet eligendi saepe ad inventore, magnam repellendus maiores nobis ipsum accusantium modi enim eos quasi ex fugit. Laboriosam! Lorem ipsum dolor sit amet consectetur adipisicing elit. Officia eum esse suscipit cumque natus repellat ea distinctio omnis, quod quasi minima facilis adipisci quis laboriosam ab quisquam perferendis error! Libero? Lorem ipsum dolor, sit amet consectetur adipisicing elit. Illo, perspiciatis vel exercitationem pariatur est repellendus amet, cupiditate illum vitae aspernatur reprehenderit iure quis, error itaque dolore molestiae qui quod a? Lorem ipsum dolor sit amet consectetur adipisicing elit. Aut delectus maxime cupiditate consectetur rerum aliquid. Ex ullam natus autem vitae, dignissimos iure id nulla, vel vero quisquam magni necessitatibus magnam.

Red	Green	Blue
10	20	30
Courier New	Franklin Gothic Medium	Lucida Sans

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Red	Green	Blue
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Courier New	Franklin Gothic Medium	Lucida Sans

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Red	Green	Blue
10	20	30
Courier New	Franklin Gothic Medium	Lucida Sans

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Red	Green	Blue
10	20	30
Courier New	Franklin Gothic Medium	Lucida Sans

Q.6. Create a form that takes data about a pet. The form must be well designed and

should accept the pet's name, age, weight, type, and what it likes most. At the submission of this form create a Pet object in JavaScript filled with these values and log that object and equivalent JSON on the console.

CODE:

```html
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>Practical 6</title>
  <style type="text/css">
    .container{
      width: 60%;
      margin: auto;
      border: 1px solid black;
      border-radius: 8px;
      padding: 50px;


    }
    .btn-submit{
      border-radius: 5px;
      color: white;
      background: greenyellow;
      font-weight: bold;
      font-size: 1rem;
      margin: 20px;
    }
    @media(width<=575){
      .container{
        width: 84%;
      }
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>Pet's Information</h1>
    <hr>
    <label for="name">Pet's Name: </label>
    <input type="text" name="name"><br><br>
    <label for="age">Age: </label>
```
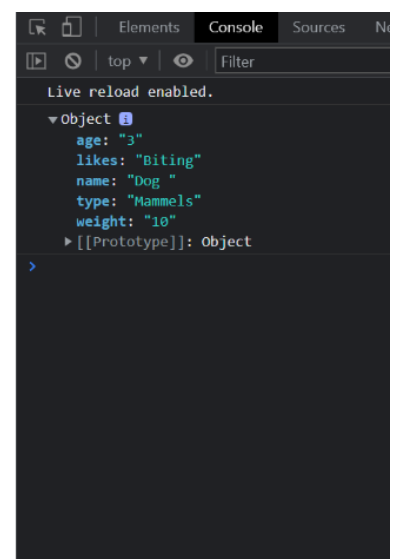
```html
        <input type="number" name="age">
        <label for="weight">Weight: </label>
        <input type="number" name="weight" class=""><br><br>
        <label for="type">Pet type: </label>
        <input type="text" name="type"><br><br>
        <label for="likes">Likes: </label>
        <input type="text" name="likes"><br>
        <button class="btn-submit" onclick="display()">Submit</button>
    </div>

    <script type="text/javascript">

        function display(){
            var pet = {};
            var input_fields = document.getElementsByTagName('input');
            for (var i = 0; i < input_fields.length; i++) {
                pet[input_fields[i].name] = input_fields[i].value;
            }
            console.log(pet);
        }

    </script>

</body>
</html>
```

OUTPUT:

Q.7. Store JSON data of few pets that you created in previous practical in a JSON file (copy from console output of previous program to a .json file). Using AJAX, load data from the file and display it in a presentable way using HTML and CSS.

Code:

```html
<!DOCTYPE html>
<html lang = "en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Practical 7</title>
    <style type="text/css">
        #pet-data{
            border: 1px solid black;
            border-radius: 10px;
            border-collapse: collapse;
        }
        td{
            border: 1px solid black;
            border-collapse: collapse;
        }
        #btn-fetch{
            margin-top: 20px;
            font-size: 24px;
            font-weight: bold;
            background-color: black;
            color: white;
            border-radius: 8px;
        }
    </style>
</head>
<body>
    <div id="content">

    </div>

    <button id="btn-fetch">Fetch Data</button>
```

```html
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
</script>
    <script type="text/javascript">
        var btnFetch = document.getElementById('btn-fetch');
        var content = document.getElementById('content');

        btnFetch.addEventListener('click', ()=>{
            const xhr = new XMLHttpRequest();
            xhr.open("GET","./pet.json",true);
            xhr.onload = ()=>{
                console.log(xhr.responseText);
                renderHtml(JSON.parse(xhr.responseText));
            }
            xhr.send();
        });

        function renderHtml(data){
            content.innerHTML = "";
            for (var i = 0; i <= data.length; i++) {
                let p = document.createElement('p');
                let htmlpart = "";
                htmlpart += data[i].name+" is a "+data[i].type+" with
age "+data[i].age+" years and weight "+data[i].weight+"kg and likes
"+data[i].likes;
                p.innerHTML = htmlpart;
                content.append(p);
                // console.log(tr);
                htmlpart="";
            }
        }
    </script>
</body>
</html>
```

Output:

Fetch Data

IT practicals.docx - Google Docs   ×   Practical 7   ×   +

← → C ⟳ ⌂   Not secure | 10.211.113.39:5500/Internet%20Technologies/Practicals/Q7_index.html

Translate   WhatsApp   My videos | Lumen5   Top free ethical hac...   Documents   Kaggle: Your Home.
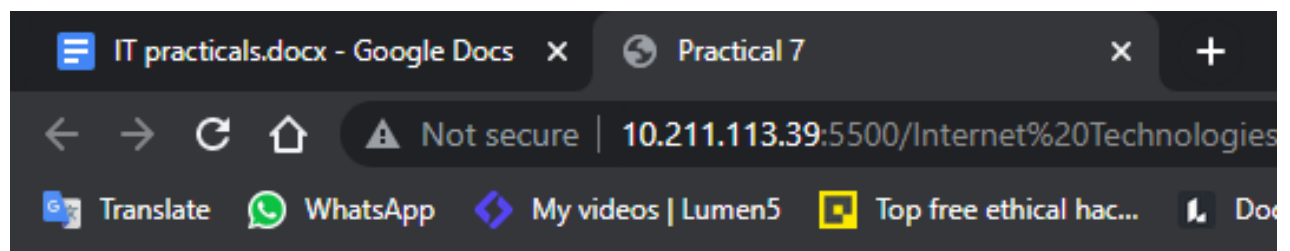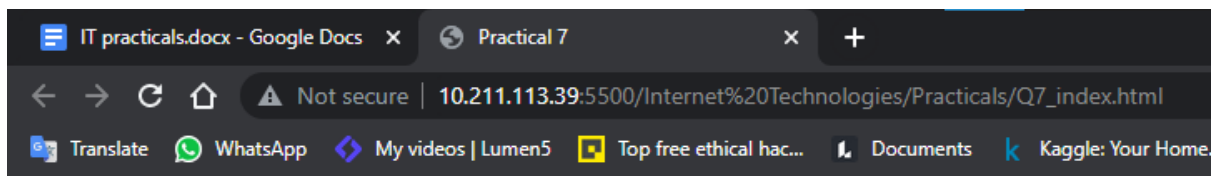
Pluto is a Pavellion with age 3 years and weight 12kg and likes eating, playing with ball

Hulk is a German Sefford with age 4 years and weight 22kg and likes Biting, eating flesh

Jerry is a cat with age 2.5 years and weight 8kg and likes sleeping

Tom is a Mouse with age 0.5 years and weight 0.7kg and likes running, eating cheese

Chiku is a Rabbit with age 1 years and weight 1.2kg and likes running, eating carrot

Fetch Data

```
[
    {
        "name":"Pluto",
        "age":3,
        "weight":12,
        "type":"Pavellion",
        "likes":"eating, playing with ball"
    },
    {
        "name":"Hulk",
        "age":4,
        "weight":22,
        "type":"German Sefford",
        "likes":"Biting, eating flesh"
    },
    {
        "name":"Jerry",
        "age":2.5,
        "weight":8,
        "type":"cat",
        "likes":"sleeping"
    },
    {
        "name":"Tom",
        "age":0.5,
        "weight":0.7,
        "type":"Mouse",
        "likes":"running, eating cheese"
    },
    {
        "name":"Chiku",
        "age":1,
        "weight":1.2,
        "type":"Rabbit",
        "likes":"running, eating carrot"
    }
]
```
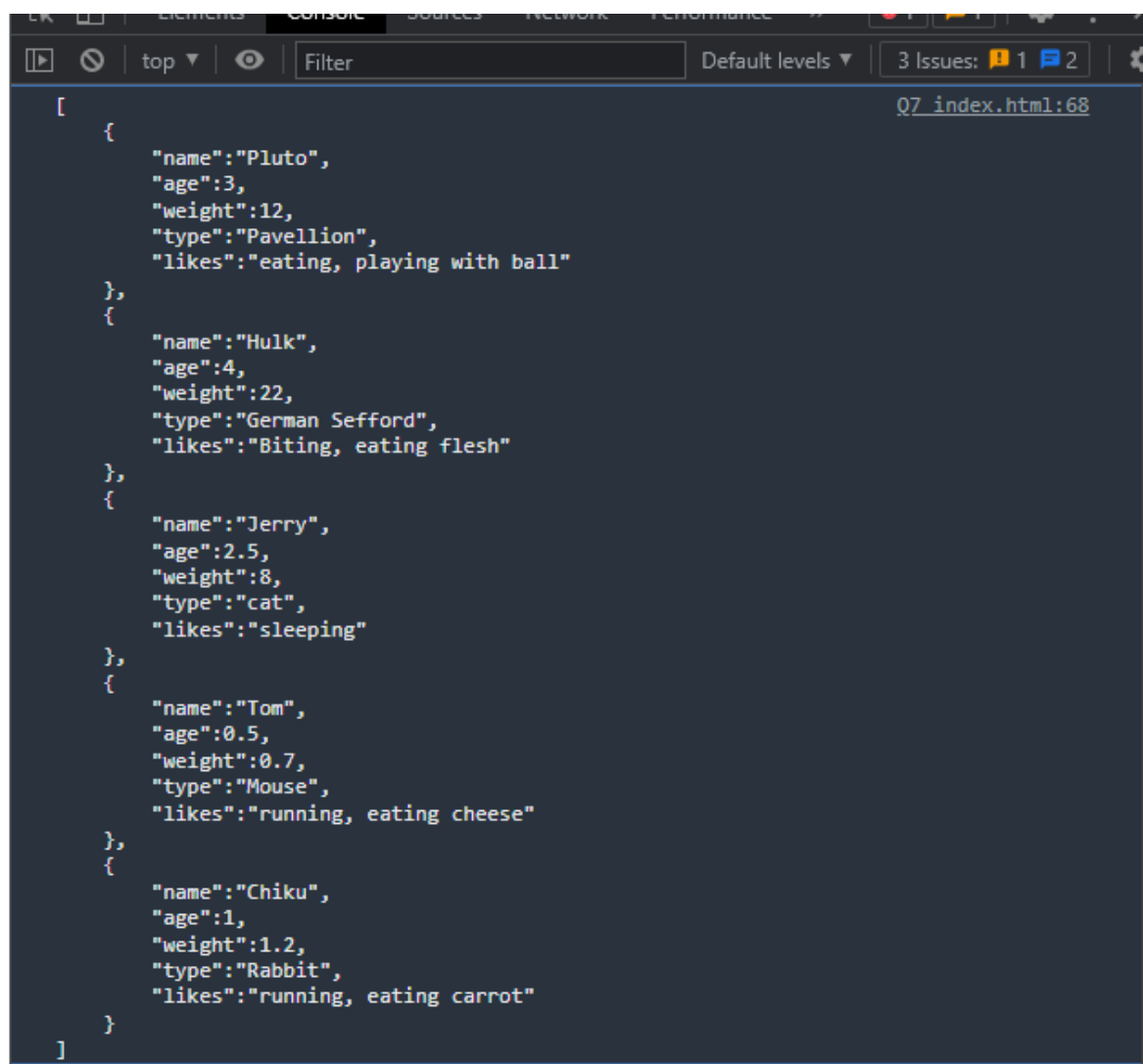
Q.8. Create a plain HTML page for B.Sc. Hons CS course, mentioning details like fee, eligibility criteria, papers with names and credits, and future possibilities after the course. A button for styling should be there at the bottom of the page. On clicking on this button JavaScript should redesign the complete page using jQuery in a nice presentable way.

Code:

```html
<!DOCTYPE html>
<html>

<head>
    <meta charset="utf-8">
    <title>Practical 8</title>
    <style type="text/css">
        .container {
            width: 70%;
            margin: auto;
            align-items: center;
            background-color: #D9CAB3;
            padding-bottom: 10px;
        }

        .info-table {
            width: 80%;
            margin: auto;
            border: 3px solid black;
            border-collapse: collapse;
            margin-top: 2%;
            margin-bottom: 2%;
        }
        .table-row {
            width: 100%;
            margin: auto;
        }
```

```css
    .table-data {
        width: 50%;
        border: 2px solid white;
        border-collapse: collapse;
    }
  </style>

</head>

<body>
  <div>
    <h1 class="heading">Bsc Hons Computer Science</h1>
    <table>
      <tr>
        <td>Fee</td>
        <td>33000</td>
      </tr>
      <tr>
        <td>Eligibility Criteria</td>
        <td>12th Pass</td>
      </tr>
      <tr>
        <td>Subjects and credit scores</td>
        <td>
          <table>
            <tr>
              <th>Subject</th>
              <th>Credit score</th>
            </tr>
            <tr>
              <td>IT</td>
              <td>6</td>
            </tr>
            <tr>
              <td>Toc</td>
              <td>6</td>
            </tr>
            <tr>
              <td>DAV/System Programming</td>
              <td>4</td>
            </tr>
            <tr>
              <td>DIP/Micro</td>
```

```html
                <td>4</td>
              </tr>
            </table>
          </td>
        </tr>
        <tr>
          <td>Future Opportunities</td>
          <td>infinite Opportunities but its totally depend on you and your skill</td>
        </tr>
      </table>
    </div>

    <button id="btn-style">
        Style Page
    </button>

    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
    </script>

    <script type="text/javascript">
      $(document).ready(function () {
        $('#btn-style').click(function () {
          $("div").addClass('container');
          $("table").addClass('info-table');
          $("tr").addClass('table-row');
          $("td").addClass('table-data');
          $(".heading").css({
             "textAlign": 'center'
          });
        });

      });
    </script>

</body>

</html>
```

Output:

Bsc Hons Computer Science

Fee	33000	
Eligibility Criteria	12th Pass	

	Subject	Credit score
	IT	6
Subjects and credit scores	Toc	6
	DAV/System Programming	4
	DIP/Micro	4

Future Opportunities	infinite Opportunities but its totally depend on you and your skill

[Style Page]

Bsc Hons Computer Science

Fee	33000	
Eligibility Criteria	12th Pass	
	Subject	**Credit score**
Subjects and credit scores	IT	6
	Toc	6
	DAV/System Programming	4
	DIP/Micro	4
Future Opportunities	infinite Opportunities but its totally depend on you and your skill	

Q.9. Create an HTML page for an image gallery which shows the use of BOOTSTRAP to rearrange and resize its contents on resizing the browser.

Code:

```html
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link
    rel="stylesheet"

href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <title>Practical 9</title>
  <style type="text/css">
    /*img{
      margin: 20px;
    }*/
  </style>
</head>
<body>

  <div class="jumbotron text-center">
   <h1>IMAGE GALLERY</h1>
   <p>Responsive Image gallery using bootstrap.</p>
  </div>
  <div class="container">
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
    <img class="col-sm-4" src="https://picsum.photos/200/"></img>
  </div>


  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
  </script>
  <script
    src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js">
  </script>

</body>
</html>
```

Output:

IMAGE GALLERY

Responsive Image gallery using bootstrap.

Q.10. Create an HTTP server using Node.js which handles requests on port 10000

or a free port beyond 10000. Modify the server in such a way that opening localhost:10000 will display "Hello world, This is my Node.js server" on the browser.

Code

```javascript
var http = require('http');

http.createServer((request,response)=>{
    response.write("Hello World, This is my Node.js server");
    response.end();
})
.listen(10000,()=>console.log('server started at port 10000'));
```

Output
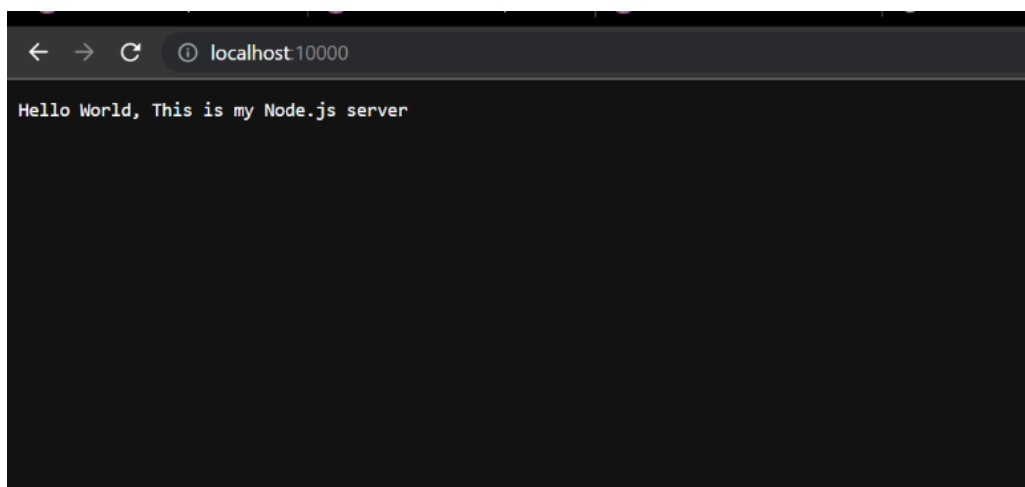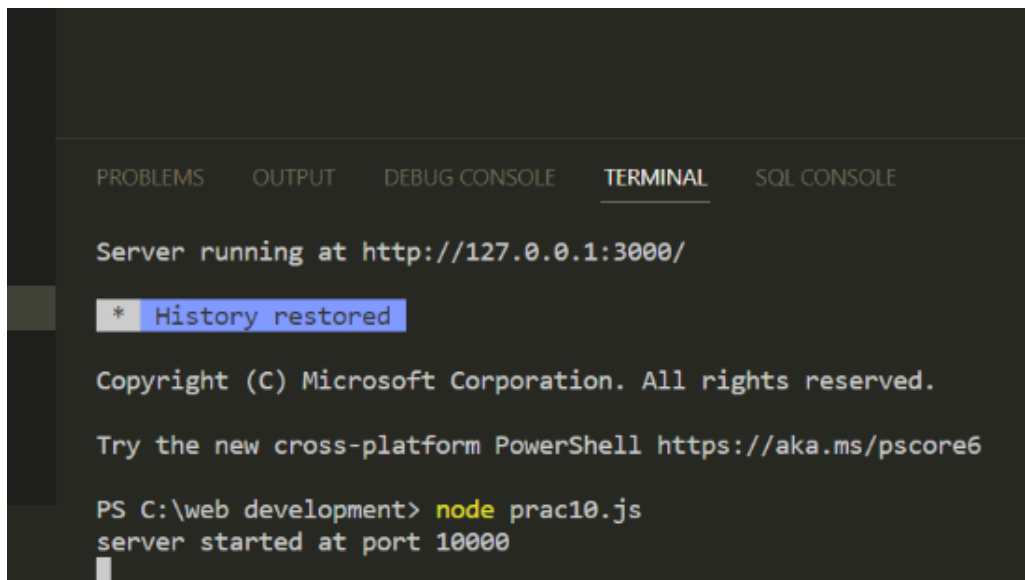
Q.11. Create index.html file containing two forms for SignIn and SignUp.

Submitting SignIn form should search for credentials in mysql database

using a server created in previous practical. On successful signin, a welcome

page should be displayed. Submitting the SignUp form should insert a new

entry for credentials in the mysql database using the server created in

previous practical. On successful sign up, the user should be returned back

to index.html.

Code:

```html
<!DOCTYPE html>
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>SignIn-SignUp Form</title>
  <link rel="stylesheet" href="style.css" />
 </head>
 <body>
  <section class="container">
   <h2>SignIn Form</h2>
   <form class="form">
    <div>
     <label for="username">Username:</label>
     <input type="text" id="username" placeholder="Enter username" />
    </div>
    <div>
     <label for="password">Password:</label>
     <input type="password" id="password" placeholder="Enter password" />
    </div>
    <button class="submit-btn">Submit</button>
   </form>
  </section>

  <section class="container">
   <h2>SignUp Form</h2>
   <form class="form">
```

```
      <div>
        <label for="name">Name:</label>
        <input type="text" id="name" placeholder="Enter name" />
      </div>
      <div>
        <label for="email">E-mail:</label>
        <input type="email" id="email" placeholder="Enter e-mail" />
      </div>
      <div>
        <label for="new-username">Username:</label>
        <input
          type="text"
          class="new-username"
          placeholder="Create username"
        />
      </div>
      <div>
        <label for="new-password">Password:</label>
        <input
          type="password"
          id="new-password"
          placeholder="Enter password"
        />
      </div>
      <div>
        <label for="re-password">Password (confirm):</label>
        <input
          type="password"
          id="re-password"
          placeholder="Enter password again"
        />
      </div>
      <button class="submit-btn">Submit</button>
    </form>
  </section>
 </body>
</html>
```

CSS:

```
/*
SPACING SYSTEM (px)
2 / 4 / 8 / 12 / 16 / 24 / 32 / 48 / 64 / 80 / 96 / 128
```

```css
FONT SIZE SYSTEM (px)
10 / 12 / 14 / 16 / 18 / 20 / 24 / 30 / 36 / 44 / 52 / 62 / 74 / 86 / 98
*/

/*
MAIN COLOR: #099268
GREY COLOR: #087f5b
ACCENT: #20c997, #e6fcf5
*/
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}

body {
  font-family: sans-serif;
  width: 850px;
  margin: 40px auto;
  display: grid;
  grid-template-columns: repeat(2, 1fr);
  column-gap: 40px;
  align-items: center;
}

.container {
  background-color: #e6fcf5;
  padding: 40px;
  border-radius: 30px;
  box-shadow: 0 20px 30px 0 rgb(0, 0, 0, 0.07);
}

.form {
  display: grid;
  grid-template-columns: 1fr;
  justify-items: start;
  align-items: center;
  row-gap: 30px;
}

h2 {
  background-color: #099268;
  display: inline-block;
```

```css
  padding: 20px;
  border-radius: 20px;
  color: #e6fcf5;
  margin-bottom: 52px;
  word-spacing: 2px;
  letter-spacing: 0.5px;
}

.submit-btn {
  font-size: 18px;
  text-transform: uppercase;
  background-color: #099268;
  border: none;
  color: #fff;
  padding: 10px 20px;
  border-radius: 10px;
  align-self: end;
  letter-spacing: 2px;
}

.submit-btn:hover {
  background-color: #087f5b;
  cursor: pointer;
}

label {
  display: inline-block;
  margin-bottom: 8px;
  color: #20c997;
  letter-spacing: 0.5px;
  font-size: 16px;
}

.form input {
  padding: 10px;
  border-radius: 10px;
  width: 300px;
  height: 50px;
  border: none;
  font-size: 18px;
}
```
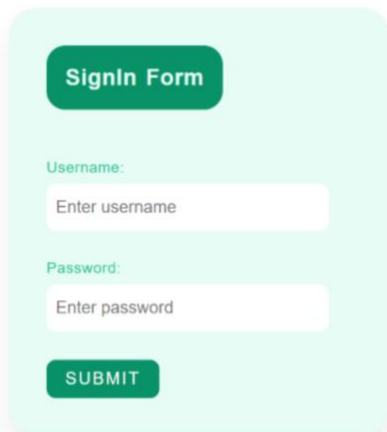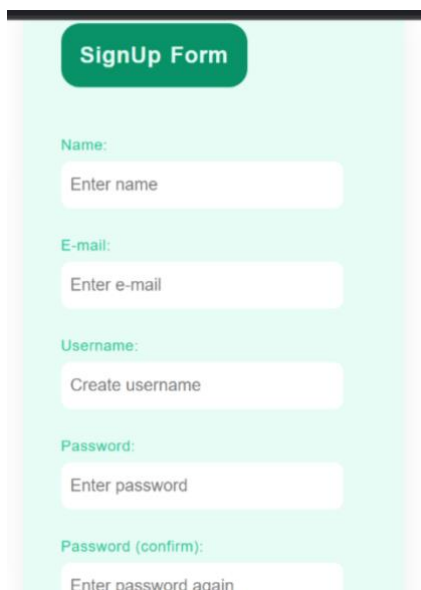
Output:

Password:

Enter password

Password (confirm):

Enter password again

SUBMIT

The End