

RAMANUJAN COLLEGE DELHI UNIVERSITY



INTERNET TECHNOLOGY PRACTICALS



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SIGNATURE

PRACTICALS

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.
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.

OUTPUTS:

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\System32>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 3:

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

Wireless LAN adapter Local Area Connection* 4:

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

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    IPv6 Address. . . . . : 2405:201:4000:9055:d54d:5d8f:ed6d:4a34
    Temporary IPv6 Address. . . . . : 2405:201:4000:9055:455e:f6a2:319b:3de6
    Link-local IPv6 Address . . . . . : fe80::87:d982:b2e7:c511%15
    IPv4 Address. . . . . : 192.168.29.55
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::3249:50ff:fe2a:a190%15
                                192.168.29.1

C:\Windows\System32>
```

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\System32>ping google.com

Pinging google.com [2404:6800:4009:829::200e] with 32 bytes of data:
Reply from 2404:6800:4009:829::200e: time=339ms
Reply from 2404:6800:4009:829::200e: time=886ms
Reply from 2404:6800:4009:829::200e: time=890ms
Request timed out.

Ping statistics for 2404:6800:4009:829::200e:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 339ms, Maximum = 890ms, Average = 705ms

C:\Windows\System32>
```

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\System32>tracert primevideo.com

Tracing route to primevideo.com [108.158.221.94]
over a maximum of 30 hops:

 1  2 ms  2 ms  3 ms  reliance.reliance [192.168.29.1]
 2 151 ms  7 ms  7 ms  10.0.72.1
 3  6 ms  8 ms  7 ms  172.16.18.5
 4 69 ms  8 ms  6 ms  192.168.96.234
 5 16 ms  9 ms  7 ms  172.26.111.117
 6 18 ms  8 ms  7 ms  172.26.111.131
 7  9 ms  5 ms 11 ms  192.168.44.44
 8 * * * Request timed out.
 9 * * * Request timed out.
10 * * * Request timed out.
11 * * * Request timed out.
12 * * * Request timed out.
13 * * * Request timed out.
14 * * * Request timed out.
15 * * * Request timed out.
16 * * * Request timed out.
17 17 ms 18 ms  9 ms  server-108-158-221-94.de151.r.cloudfront.net [108.158.221.94]

Trace complete.

C:\Windows\System32>netstat -r

=====
Interface List
11...02 45 e2 da 0f 15 .....Microsoft Wi-Fi Direct Virtual Adapter #3
16...82 45 e2 da 0f 15 .....Microsoft Wi-Fi Direct Virtual Adapter #4
15...00 45 e2 da 0f 15 .....Realtek 8822CE Wireless LAN 802.11ac PCI-E NIC
 1.....Software Loopback Interface 1
=====

IPv4 Route Table

=====
Active Routes:
Network Destination  Netmask  Gateway  Interface  Metric
0.0.0.0             0.0.0.0  192.168.29.1  192.168.29.55  55
127.0.0.0           255.0.0.0  On-link      127.0.0.1  331
127.0.0.1           255.255.255.255  On-link      127.0.0.1  331
127.255.255.255     255.255.255.255  On-link      127.0.0.1  331
192.168.29.0         255.255.255.0  On-link      192.168.29.55  311
192.168.29.55        255.255.255.255  On-link      192.168.29.55  311
192.168.29.255       255.255.255.255  On-link      192.168.29.55  311
224.0.0.0           240.0.0.0  On-link      127.0.0.1  331
```

```

        224.0.0.0        240.0.0.0        On-link        192.168.29.55        311
255.255.255.255 255.255.255.255        On-link        127.0.0.1        331
255.255.255.255 255.255.255.255        On-link        192.168.29.55        311
=====

```

Persistent Routes:

None

IPv6 Route Table

Active Routes:

| If | Metric | Network | Destination | Gateway |
|----|--------|--|-------------|---------------------------|
| 15 | 71 | ::/0 | | fe80::3249:50ff:fe2a:a190 |
| 1 | 331 | ::1/128 | | On-link |
| 15 | 71 | 2405:201:4000:9055::/64 | | On-link |
| 15 | 311 | 2405:201:4000:9055:455e:f6a2:319b:3de6/128 | | On-link |
| 15 | 311 | 2405:201:4000:9055:d54d:5d8f:ed6d:4a34/128 | | On-link |
| 15 | 311 | fe80::/64 | | On-link |
| 15 | 311 | fe80::87:d982:b2e7:c511/128 | | On-link |
| 1 | 331 | ff00::/8 | | On-link |
| 15 | 311 | ff00::/8 | | On-link |

Persistent Routes:

None

C:\Windows\System32>netstat -a

Active Connections

| Proto | Local Address | Foreign Address | State |
|-------|---------------------|----------------------|-------------|
| TCP | 0.0.0.0:135 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:445 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:5040 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49664 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49665 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49666 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49667 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49668 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:49669 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 0.0.0.0:50131 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 192.168.29.55:139 | LAPTOP-RRPT06J1:0 | LISTENING |
| TCP | 192.168.29.55:59798 | 20.198.119.143:https | ESTABLISHED |
| TCP | 192.168.29.55:59943 | 52.109.124.130:https | ESTABLISHED |
| TCP | 192.168.29.55:60080 | 117.18.237.29:http | CLOSE_WAIT |
| TCP | 192.168.29.55:60098 | 117.18.232.200:https | CLOSE_WAIT |
| TCP | 192.168.29.55:60100 | a-0003:https | TIME_WAIT |
| TCP | 192.168.29.55:60168 | 52.109.124.115:https | TIME_WAIT |

```

TCP 192.168.29.55:60100 a-0003:https TIME_WAIT
TCP 192.168.29.55:60168 52.109.124.115:https TIME_WAIT
TCP 192.168.29.55:60169 ec2-35-82-192-161:https TIME_WAIT
TCP 192.168.29.55:60170 ec2-35-82-192-161:https TIME_WAIT
TCP 192.168.29.55:60177 13.89.179.8:https ESTABLISHED
TCP 192.168.29.55:60182 ec2-54-171-149-125:https TIME_WAIT
TCP 192.168.29.55:60186 ec2-54-171-149-125:https TIME_WAIT
TCP 192.168.29.55:60187 server-13-224-18-189:https TIME_WAIT
TCP 192.168.29.55:60188 ec2-54-154-238-248:https TIME_WAIT
TCP 192.168.29.55:60194 ec2-3-108-30-248:https TIME_WAIT
TCP 192.168.29.55:60195 ec2-3-108-30-248:https TIME_WAIT
TCP [::]:135 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:445 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49664 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49665 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49666 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49667 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49668 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:49669 LAPTOP-RRPT06J1:0 LISTENING
TCP [::]:50131 LAPTOP-RRPT06J1:0 LISTENING
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60077 [2405:200:1630:1600:b855:dc57]:https CLOSE_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60121 whatsapp-cdn6-shv-02-del1:https ESTABLISHED
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60165 [2606:2800:147:120f:30c:1ba0:fc6:265a]:http TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60174 [2a05:d018:e46:cd02:16c8:bd3d:a196:1513]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60175 [2a05:d018:e46:cd02:16c8:bd3d:a196:1513]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60179 [2a05:d018:e46:cd02:16c8:bd3d:a196:1513]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60180 [2a05:d018:e46:cd02:16c8:bd3d:a196:1513]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60181 [2a05:d018:e46:cd02:16c8:bd3d:a196:1513]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60189 [2600:9000:256e:2400:9:6c09:57c8:5021]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60191 [2a05:d018:e46:cd01:da40:bf54:7e95:f790]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60197 [2a05:d018:e46:cd01:da40:bf54:7e95:f790]:https TIME_WAIT
TCP [2405:201:4000:9055:455e:f6a2:319b:3de6]:60198 https-2402-6800-763-a000--8:https ESTABLISHED
UDP 0.0.0.0:123 *.*
UDP 0.0.0.0:5050 *.*
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 127.0.0.1:1900 *.*
UDP 127.0.0.1:49664 127.0.0.1:49664
UDP 127.0.0.1:60336 *.*
UDP 192.168.29.55:137 *.*
UDP 192.168.29.55:138 *.*
UDP 192.168.29.55:1900 *.*
UDP 192.168.29.55:60335 *.*
UDP [::]:123 *.*
UDP [::]:5353 *.*
UDP [::]:5353 *.*
UDP [::]:5355 *.*

```

```

UDP    192.168.29.55:1900      *.*
UDP    192.168.29.55:60335    *.*
UDP    [::]:123                 *.*
UDP    [::]:5353                *.*
UDP    [::]:5353                *.*
UDP    [::]:5355                *.*
UDP    [::1]:1900              *.*
UDP    [::1]:60334             *.*
UDP    [fe80::87:d982:b2e7:c511%15]:1900  *.*
UDP    [fe80::87:d982:b2e7:c511%15]:60333  *.*

C:\Windows\System32>ping 25.56.277.210
Ping request could not find host 25.56.277.210. Please check the name and try again.

C:\Windows\System32>ping 25.56.227.210

Pinging 25.56.227.210 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 25.56.227.210:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Windows\System32>ping 172.16.18.5

Pinging 172.16.18.5 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.16.18.5:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Windows\System32>

```

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 looks nice.

```

<!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="./main.css" />
  </head>

  <body>
    <header class="tophead">
      <p class="tophead-intro">Hello Guys this is</p>
      <h1 class="tophead-heading">ADARSH </h1>
    </header>
  </body>
</html>

```

```

</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>
  <p>I love play judo 2x national medal in Judo, swimming, listening to
  western music, love Sanskrit, always hungry for paneer butter masala.</p>
</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++</li>
        <li>DBMS </li>
        <li>DSA</li>
        <li>Python</li>
        <li>BLOCK CHAIN </li>
      </ul>
    </div>
  </p>
</section>

<section class="plan-section">
  <h1>My Plans</h1>
  <p>BLOCKCHAIN DEVELOPER</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>
  </ul>

```

```

        </li>
        <li>
            <a class="css-is-deranged" href="#"
                >Twitter</a
            >
        </li>
    </ul>
</footer>
</body>
</html>

```

CSS:

```

body {
    color: #222222;
    font-size: 1em;
    font-family: "Open Sans", "Helvetica Neue", sans-serif;
}

.content-footer,
.tophead-heading,
.tophead-intro {
    text-align: center;
}

.tophead {
    padding: 6em 0;
    border-top: solid 1em #ffcf33;
}

.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;  
}  
  
section > h1 {  
  margin-top: 2em;  
}  
  
.content-footer,  
.tophead-heading,  
.tophead-intro {  
  text-align: center;  
}  
  
.tophead {  
  padding: 6em 0;  
  background-size: cover;  
  background-repeat: no-repeat;  
  border-top: solid 1em #ffcf33;  
}  
  
.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;
  margin-left: auto;
  margin-right: auto;
  margin-top: 2em;
}

.content-footer {
  margin: 50px 0;
  padding: 20px 0;
  text-align: center;
  background-color: #73a8c2;
  text-decoration: none;
}

.social > li {
  display: inline-block;
  margin: 0 5px;
}

.content-footer > p {
  color: #f7ede1;
}

a {
  font-weight: bold;
  text-decoration: none;
  color: #f1c863;
}

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

  .tophead-heading {

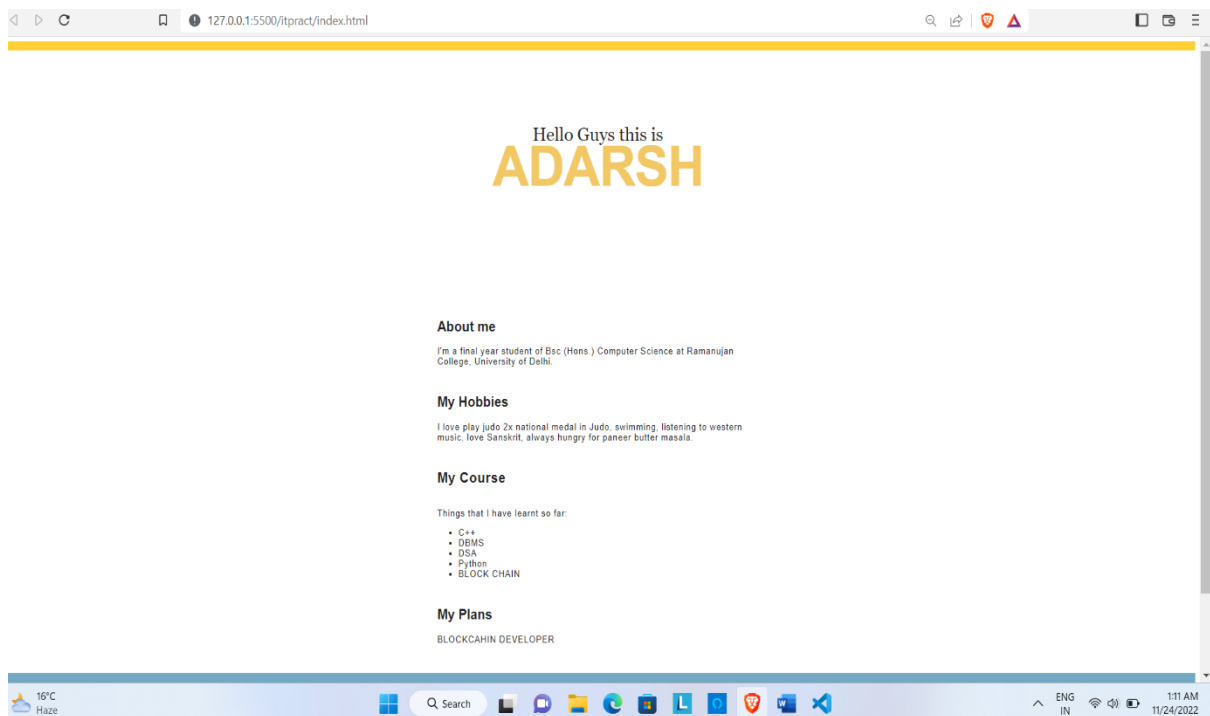
```

```

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

```

OUTPUT:



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 :

```

<!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;
    }

    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 |

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 paragraph.

Code

Html code

Q5: 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 paragraph. 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>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>
      <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

```
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

```
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

Q5: 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 paragraph. Code: HT!

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 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 quod laboriosam ab quisquam perferendis error! Libero? Lorem ipsum dolor, sit amet consectetur adipisicing elit. Illo, perspiciatis vel exercitationem pariatur est repellendus amet, cupiditate illud 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 aliquod 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 |

Q5: 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 paragraph. Code:

Lorem, ipsum dolor sit amet consectetur adipisicing elit. Delectus impedit fuga optio. Eveniet eligendi saepe ad inventore, magnam repellendus maiores nobis ipsum accusantium modi 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 adipi laboriosam ab quisquam perferendis error! Libero? Lorem ipsum dolor, sit amet consectetur adipisicing elit. Illo, perspiciatis vel exercitationem pariatur est repellendus amet, cupiditate 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 i 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 |
| 10 | 20 | 30 |
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| | | |
|-------------|------------------------|-------------|
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| | | |
|-------------|------------------------|-------------|
| Red | Green | Blue |
| 10 | 20 | 30 |
| Courier New | Franklin Gothic Medium | Lucida Sans |

Q5: 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 paragraph. Code: HTML:

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

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:

```
<!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>
        <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(){
            // event.preventDefault();
            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>

```

```

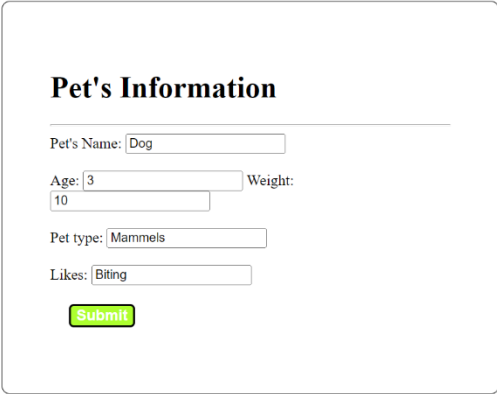
    }

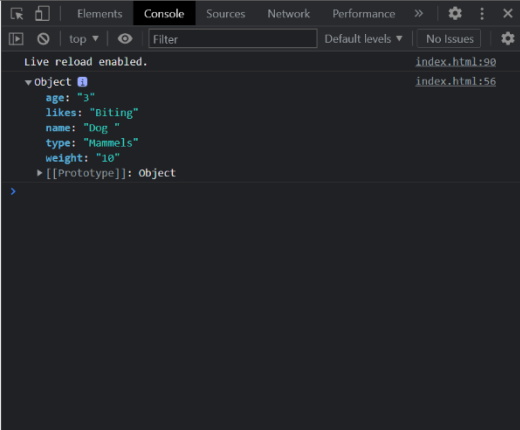
</script>

</body>
</html>

```

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.





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 bottom of the page. On clicking on this button JavaScript should redesign the complete page using jQuery in a nice presentable way.

Code:

```

<!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;
    }

    .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>
        <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"></scrip
t>
<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 | | | | | | | | | | |
| | <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><td>4</td></tr></table> | Subject | Credit score | IT | 6 | Toc | 6 | DAV/System Programming | 4 | DIP/Micro | 4 |
| Subject | Credit score | | | | | | | | | | |
| IT | 6 | | | | | | | | | | |
| Toc | 6 | | | | | | | | | | |
| DAV/System Programming | 4 | | | | | | | | | | |
| DIP/Micro | 4 | | | | | | | | | | |
| Subjects and credit scores | | | | | | | | | | | |
| Future Opportunities | infinite Opportunities but its totally depend on you and your skill | | | | | | | | | | |
| Style Page | | | | | | | | | | | |

[Style Page](#)

| Bsc Hons Computer Science | | | | | | | | | | | |
|----------------------------|---|--------------|--------------|----|---|-----|---|------------------------|---|-----------|---|
| Fee | 33000 | | | | | | | | | | |
| Eligibility Criteria | 12th Pass | | | | | | | | | | |
| Subjects and credit scores | <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><td>4</td></tr></table> | Subject | Credit score | IT | 6 | Toc | 6 | DAV/System Programming | 4 | DIP/Micro | 4 |
| | Subject | Credit score | | | | | | | | | |
| | IT | 6 | | | | | | | | | |
| | Toc | 6 | | | | | | | | | |
| | DAV/System Programming | 4 | | | | | | | | | |
| DIP/Micro | 4 | | | | | | | | | | |
| Future Opportunities | infinite Opportunities but its totally depend on you and your skill | | | | | | | | | | |

[Style Page](#)

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:

```
<!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>
  </img>
  </img>
  </img>
  </img>
  </img>
</div>

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

</body>
</html>

```

Output:





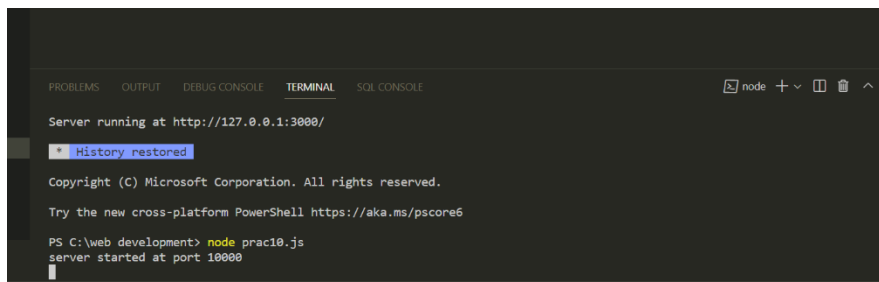
10. Create an HTTP server using Node.js which handles requests on port 10000 or a free port beyond 10000. Modify the server in such a way that opening localhost:10000 will display “Hello world, This is my Node.js server” on browser.

Code

```
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





11. Create index.html file containing two forms for SignIn and SignUp. Submitting SignIn form should search for credentials in mysql database using server created in previous practical. On successful signin, a welcome page should be displayed. Submitting SignUp form should insert new entry for credentials in mysql database using server created in previous practical. On successful signup, user should be returned back to index.html.

Code:

```
<!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>
      </form>
    </section>
  </body>
</html>
```

```

<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
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;
  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:

The image shows a 'SignIn Form' with a title, two input fields for 'Username' and 'Password', and a 'SUBMIT' button. The form is styled with a light green background, rounded corners, and a dark green header bar. The input fields have a light green border and rounded corners. The 'SUBMIT' button is dark green with white text.

SignUp Form

Name:

Enter name

E-mail:

Enter e-mail

Username:

Create username

Password:

Enter password

Remember Me?

Password:

Enter password

Password (confirm):

Enter password again

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