



KALINDI COLLEGE
UNIVERSITY OF DELHI

NAME: Prachi Aggarwal
COURSE: Bsc(H) Computer Science
ROLLNO: 21570015
UNIVERSITY RNO: 21033570042
SUBJECT: Internet Technologies

Practical File

1. 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.

```
Command Prompt      + ▾

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C:\Users\Prachi Aggarwal>cd...
C:\Users\Prachi Aggarwal>cd..
C:\Users>cd..
C:\>cd windows/system32
C:\Windows\System32>ipconfig

Windows IP Configuration

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 . . . . . : hgu_lan
  Link-local IPv6 Address . . . . . : fe80::3ce7:ffffb:7a78:c9f1%14
  IPv4 Address. . . . . : 192.168.1.38
  Subnet Mask . . . . . : 255.255.255.0
  Default Gateway . . . . . : 192.168.1.1

Ethernet adapter Ethernet:
  Media State . . . . . : Media disconnected
  Connection-specific DNS Suffix . . . . . : kalindi.du.ac.in
```

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 8.8.8.8

Pinging 8.8.8.8 with 32 bytes of data:
Reply from 8.8.8.8: bytes=32 time=5ms TTL=59
Reply from 8.8.8.8: bytes=32 time=5ms TTL=59
Reply from 8.8.8.8: bytes=32 time=6ms TTL=59
Reply from 8.8.8.8: bytes=32 time=5ms TTL=59

Ping statistics for 8.8.8.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 6ms, Average = 5ms

C:\Windows\System32>tracert 8.8.8.8

Tracing route to dns.google [8.8.8.8]
over a maximum of 30 hops:

  1  268 ms      3 ms      2 ms  192.168.1.1
  2  8 ms       4 ms      3 ms  45.122.122.1
  3  *          *          *      Request timed out.
  4  3 ms       3 ms    279 ms  172.22.22.53
  5  4 ms       3 ms      4 ms  74.125.147.241
  6  124 ms     4 ms      4 ms  142.251.71.163
  7  5 ms       4 ms      3 ms  72.14.232.95
  8  5 ms       5 ms      3 ms  dns.google [8.8.8.8]

Trace complete.

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.

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q3</title>
    <link rel="stylesheet" href="styles.css">
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Rubik&display=swap" rel="stylesheet">
</head>
<body>
    <!-- profile -->
    <div class="container">
        <div class="profileImg"></div>
        <div class="aboutMe">
            <h1 class="main">Prachi Aggarwal</h1><br>
            <p class="main2">
                I am a computer student <br>who is passionate about learning practical things<br>styling web pages and making them interactive<br>is my full time joy.
            </p>
        </div>
    <!-- course -->
    <div class="section">
        <div class="about">
            <div class="courseImg">
                
            </div>
            <div class="course">
                <h2 class="headings">
                    About Course
                </h2><br>
                <p class="paras">
                    I am pursuing Bsc(H) computer science. <br>
                    My course cover major topics of computer science and software engineering which includes DSA, Web development, Android Development, Operating system, DBMS, Networking, AI and Software engineering. <br>
                </p>
            </div>
        </div>
    </div>
</body>
```

```
        It helps individual to pursue their career further in the
same.
            </p>
        </div>

    </div>
    <!-- hobby -->
    <div class="hobby">
        <div class="hobbyImg">
            
        </div>
        <div class="hobbyAbout">
            <h2 class="headings">
                Hobbies and Interests
            </h2><br>
            <p class="paras">
                My hobbies are reading comics, designing e-pages, making
thumbnails and watching cartoons. <br>
                My interests are android development and web development.
<br>
                Solving maths questions and discussing about trends.
            </p>
        </div>
    <!-- Experiece -->
    <div class="addExp">
        <div class="addExpImg">
            
        </div>
        <div class="addExpAbout">
            <h2 class="headings">Experiece and other details</h2><br>
            <p class="paras">
                I have completed my internship in digital marketing at
IIIDE VIP batch. <br>
                I have completed my internship in content creation at
Swell. <br>
                I have worked as DISCIPLINE HEAD in computer science
society SATTVA of Kalindi college. <br>
                I have worked as campus ambassador for one month at daulat
ram college.
            </p>
        </div>
    </div>
    <!-- plans -->
    <div class="plans">
        <div class="plansImg"></div>
        <div class="plansAbout"><h2 class="headings">Plans</h2><br>
```

```

        <p class="paras">
            I am thinking to continue computer science by taking MCA
in future.
            I will continue working in coorporate field as IT
professional in future.
        </p></div>
    </div>
<!-- footer -->
<footer>
    <div class="footer">
        <div>
            Address: XYZ Delhi
        </div>
        <div>
            Email Id: XYX@gmail.com
        </div>
        <div>
            Contact: 123254324534
        </div>
    </div>
</footer>
</body>
</html>
```

styles.css

```

@import url('https://fonts.googleapis.com/css2?family=Rubik&display=swap');
*{
    padding: 0;
    margin: 0;
}

.section{
    background: rgb(238,174,202);
    background: radial-gradient(circle, rgba(238,174,202,1) 0%,
rgba(243,212,226,1) 5%, rgba(193,205,243,1) 86%, rgba(226,237,250,1) 100%);
}

.images{
    width: 300px;
    height: 300px;
    border-radius: 10px;
}
.container{
    width: 100%;
    height: 550px;
    display: flex;
```

```
background: rgb(34,193,195);
background: linear-gradient(0deg, rgba(34,193,195,1) 0%,
rgba(253,187,45,1) 100%);
}

#main-img{
    width: 300px;
    height: 350px;
    border-radius: 40px;
    box-shadow: 10px 10px rgb(255,204,0);
    border: 2px groove rgb(255,204,0);
    margin: 50px 0 0 100px;
}

.aboutMe{
    margin: 150px 0 0 180px;
    background-color: white;
    height: 120px;
    padding: 30px;
    border-radius: 20%;
    border: 5px outset rgb(255,204,0);
    background-color:ivory;
}

.headings, .paras{
    font-family: 'Rubik', sans-serif;
}

.main{
    color:#1e9575;
    font-family: 'Rubik', sans-serif;
}

.main2{
    color: rgb(194, 144, 19);
    font-family: 'Rubik', sans-serif;
}

.about,.hobby,.addExp,.plans{
    height: 400px;
    width: 100%;
    display: flex;
}

.course,.hobbyAbout,.addExpAbout,.plansAbout{
    margin-left: 180px;
    margin-top: 80px;
    width: 500px;
}
```

```
border: 2px outset rgb(255,204,0);
border-radius: 20px;
box-shadow: 10px 10px rgb(255,204,0);
height: 150px;
padding: 30px;
background-color: ivory;

}

.courseImg,.hobbyImg,.addExpImg ,.plansImg      {
    margin-left:40px;
    margin-top: 20px;
}

.headings{
    color: rgb(255,204,0);
    text-shadow: 3px 3px #8b0f0f;
}

.paras{
    color:#1e9575;
}

.addExpAbout{
    height: 200px;
}

footer{
    background: rgb(34,193,195);
    background: linear-gradient(0deg, rgba(34,193,195,1) 0%,
    rgba(253,187,45,1) 100%);
    height: 100px;
}

.footer{
    display: flex;
    justify-content: space-around;
}
.footer div{
    margin-top: 45px;
    color: ivory;
    font-family: 'Rubik', sans-serif;
}
```



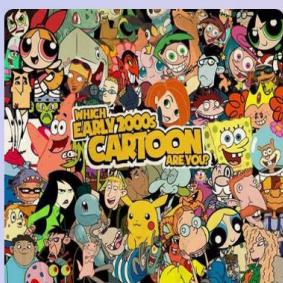
Prachi Aggarwal

I am a computer student who is passionate about learning practical things styling web pages and making them interactive is my full time joy.



About Course

I am pursuing Bsc(H) computer science. My course covers major topics of computer science and software engineering which includes DSA, Web development, Android Development, Operating system, DBMS, Networking, AI and Software engineering. It helps individuals to pursue their career further in the same.



Hobbies and Interests

My hobbies are reading comics, designing e-pages, making thumbnails and watching cartoons. My interests are android development and web development. Solving maths questions and discussing about trends.



Experience and other details

I have completed my internship in digital marketing at IIDE VIP batch.
I have completed my internship in content creation at Swell.
I have worked as DISCIPLINE HEAD in computer science society SATTVA of Kalindi college.
I have worked as campus ambassador for one month at Daulat Ram college.



Plans

I am thinking to continue computer science by taking MCA in future. I will continue working in corporate field as IT professional in future.

Address: XYZ Delhi

Email Id: XYX@gmail.com

Contact: 123254324534

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.

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q4</title>
</head>
<body>
    <h1>Multiplication Table</h1>
    <div></div>
    <script src="index.js"></script>
</body>
</html>
```

index.js

```
function table(n){
    var str='';
    for(var i=1; i<=10; i++){
        str += " " + n*i;
    }
    return str;
}

function randomColor(){
    let r = Math.floor(Math.random() * 256); // Random between 0-255
    let g = Math.floor(Math.random() * 256); // Random between 0-255
    let b = Math.floor(Math.random() * 256); // Random between 0-255
    return 'rgb(' + r + ',' + g + ',' + b + ')';
}

function print(){
```

```

var lst = document.querySelectorAll('div');
lst[count].innerHTML=table(count+2);
lst[count].style.fontSize=x+"px";
lst[count].style.backgroundColor=randomColor();
count=count+1;
x=x+10;
}
(function(){
count=0
x=20;
var lst = document.querySelectorAll('div');
time=1000
for(i=0; i<lst.length;i++){
    time=time+1500;
    setInterval(print,time);
}
})()

```

Multiplication Table

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

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q5</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <h1><center>Select your CSS styling</center></h1>
    <p id="para">Lorem ipsum dolor sit, amet consectetur adipisicing elit. Sed doloribus totam veritatis fuga architecto accusantium porro neque, aperiam praesentium amet necessitatibus, vel unde aliquam animi iste. Quod laboriosam praesentium quam? Lorem ipsum dolor sit amet consectetur adipisicing elit. Magni eius voluptas quidem ducimus explicabo voluptatum dolorum dolorem quia earum autem totam tempore voluptatibus, placeat ipsum, mollitia nostrum? Provident, itaque exercitationem. Lorem ipsum dolor sit, amet consectetur adipisicing elit. Sed doloribus totam vriatis fuga architecto poeo a.
    </p>
    <div class="container">
        <div class="btn"><button id="one">Red</button></div>
        <div class="btn"><button id="two">Green</button></div>
        <div class="btn"><button id="three">Blue</button></div>
        <div class="btn"><button id="four">10</button></div>
        <div class="btn"><button id="five">20</button></div>
        <div class="btn"><button id="six">30</button></div>
        <div class="btn"><button id="seven">Cursive</button></div>
        <div class="btn"><button id="eight">Sans-Serif</button></div>
        <div class="btn"><button id="nine">Monospace</button></div>
    </div>
</body>
<script src="index.js"></script>
</html>
```

styles.css

```

.container{
    display: grid;
    grid-template-columns: auto auto auto;
    background-color: #2196F3;
    padding: 5px;
}

.btn{
    background-color: blanchedalmond;
    border: 2px solid black;
    padding: 20px;
}

.btn button{
    padding: 8px;
    color: white;
    margin-left: 42%;
    width: 120px;
    background-color: maroon;
    cursor: pointer;
}

h1{
    font-family: 'Franklin Gothic Medium', 'Arial Narrow', Arial, sans-serif;
    color:red;
    text-shadow: 2px 2px 2px rgb(61, 59, 59);
}

.one{
    color:red;
}

```

index.js

```

var btn1=document.getElementById('one');
var btn2=document.getElementById('two');
var btn3=document.getElementById('three');
var btn4=document.getElementById('four');
var btn5=document.getElementById('five');
var btn6=document.getElementById('six');
var btn7=document.getElementById('seven');
var btn8=document.getElementById('eight');
var btn9=document.getElementById('nine');
var para = document.getElementById('para');
btn1.addEventListener('click',function(){
    para.style.color='red';
},false);

```

```
btn2.addEventListener('click',function(){
    para.style.color='green';
},false);
btn3.addEventListener('click',function(){
    para.style.color='blue';
},false);
btn4.addEventListener('click',function(){
    para.style.fontSize='10px';
},false);
btn5.addEventListener('click',function(){
    para.style.fontSize='20px';
},false);
btn6.addEventListener('click',function(){
    para.style.fontSize='30px';
},false);
btn7.addEventListener('click',function(){
    para.style.fontFamily='cursive';
},false);
btn8.addEventListener('click',function(){
    para.style.fontFamily='sans-serif';
},false);
btn9.addEventListener('click',function(){
    para.style.fontFamily='monospace';
},false);
```

Select your CSS styling

Quod laboriosam praesentium quam? Quod laboriosam praesentium quam? Quod laboriosam praesentium quam?

Red	Green	Blue
10	20	30
Cursive	Sans-Serif	Monospace

Select your CSS styling

Quod laborosam praesentium quam? Lorem ipsum dolor sit amet consectetur adipisicing elit. Sed doloribus totam veritatis fuga architecto accusantium porro neque, aperiam praesentium amet necessitatibus, vel unde aliquam animi iste. Magni eius voluptas quidem ducimus explicabo voluptatum dolorum dolorem quia earum autem totam tempore voluptatibus, placeat ipsum, mollitia nostrum? Provident, itaque exercitationem. Quod laborosam praesentium quam? Lorem ipsum dolor sit amet consectetur adipisicing elit. Sed doloribus totam veritatis fuga architecto poeo.

Red	Green	Blue
10	20	30
Cursive	Sans-Serif	Monospace

Select your CSS styling

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Red	Green	Blue
10	20	30
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Quod laboriosam praesentium quam? Lorem ipsum dolor sit amet consectetur adipisicing elit. Sed doloribus totam veritatis fuga architecto accusantium porro neque, aperiam praesentium amet necessitatibus, vel unde aliquam animi iste. Magni eius voluptas quidem ducimus explicabo voluptatum dolorum dolorem quia earum autem totam tempore voluptatibus, placeat ipsum, mollitia nostrum? Provident, itaque exercitationem. Lorem ipsum dolor sit amet consectetur adipisicing elit. Sed doloribus totam vriatis fuga architecto poeoo a.

Red	Green	Blue
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Red	Green	Blue

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Red	Green	Blue
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Red	Green	Blue
10	20	30
Cursive	Sans-Serif	Monospace

Select your CSS styling

Quod laboriosam praesentium quam? Lorem ipsum dolor sit amet consectetur adipisicing elit. Magni eius voluptas quidem ducimus explicabo voluptatum dolorum dolorem quia earum autem totam tempore voluptatibus, placeat ipsum, mollitia nostrum? Provident, itaque exercitationem. Lorem ipsum dolor sit, amet consectetur adipisicing elit. Sed doloribus totam vriatis fuga architecto poeo a.

Red	Green	Blue
10	20	30
Cursive	Sans-Serif	Monospace

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.

index.html

```
<!-- . 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 -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q6</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <h1><center>Tell us about your Pet</center></h1><br>

    <div class="container">

        <form id="form">
            <p><label for="name"><b>Pet Name:</b></label>
                <input type="text" id="name"/></p><br>
            <p> <label for="age"><b>Age:</b></label>
                <input type="number" id="age"/></p><br>
            <p><label for="weight"><b>Weight:</b></label><input type="number"
id="weight"/></p><br>
            <p><label for="type"><b>Type:</b></label><input id="type"
type="text"/></p><br>
            <p><label for="fav"><b>Favourite things:</b></label><input
id="fav" type="text"/></p><br>
                <input type="submit" class="btn" id="submit"/>
                <input type="reset" class="btn"/>
        </form>
    </div>

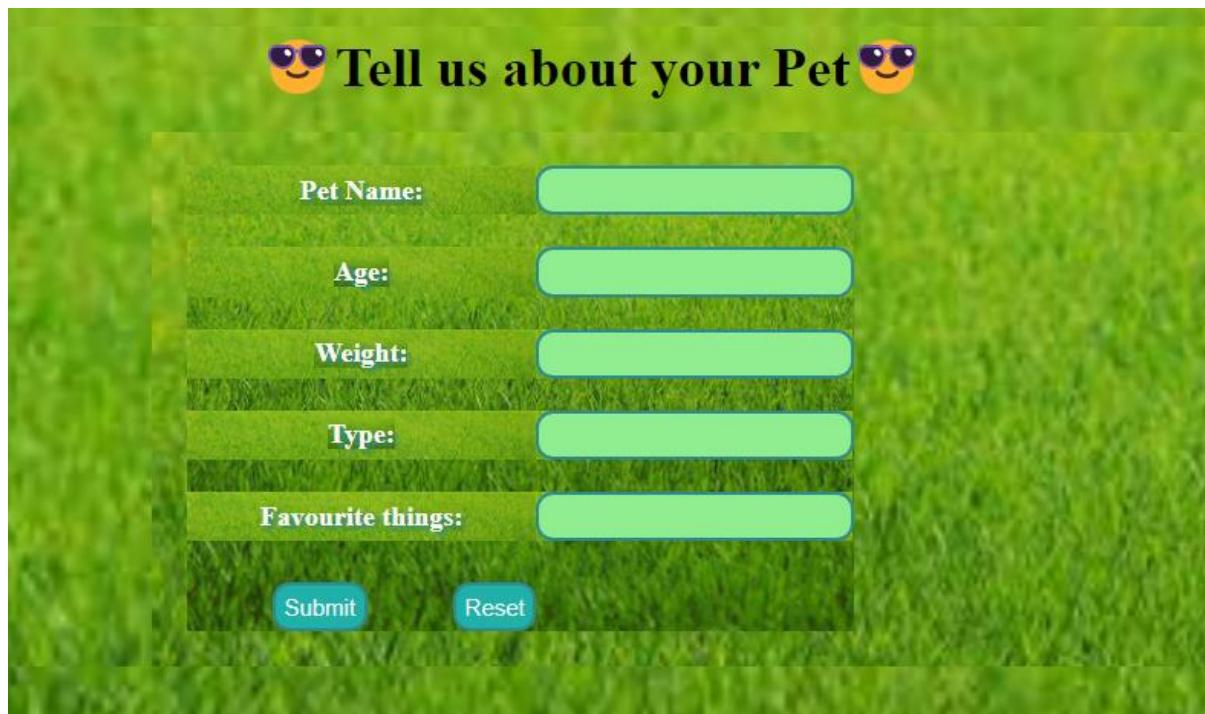
    <script src="jquery-3.7.1.js"></script>
    <script src="index.js"></script>
</body>
</html>
```

styles.css

```
form{  
    display: table;  
}  
  
label{  
    display: table-cell;  
    color:floralwhite;  
    text-shadow: 3px 2px 2px rgb(44, 139, 146);  
}  
input{  
    display: table-cell;  
    border: 2px solid rgb(44, 139, 146);  
    background: lightgreen;  
    border-radius: 10px;  
    padding: 5px;  
}  
p{  
    display: table-row;  
}  
*{  
    background-image: url("./assets/lawn.jpeg");  
    background-repeat: no-repeat;  
    margin: 0;  
    padding: 0;  
    background-size:cover;  
}  
.container{  
    padding: 20px;  
    text-align: center;  
    margin-left: 35%;  
}  
h1{  
    margin-top: 20px;  
}  
  
.btn{  
    margin: 5px 0px 0px 50px;  
    background: lightseagreen;  
    color: whitesmoke;  
    padding: 5px;  
    cursor: pointer;  
}
```

index.js

```
$('#submit').on("click",function(e){  
    e.preventDefault();  
    let info={"name":"",  
             "age","",  
             "weight","",  
             "favourite things":""};  
    let name,age,weight,fav;  
    name = $('#name').val();  
    age = $('#age').val();  
    weight=$('#weight');  
    fav=$('#fav');  
    info.name=name;  
    info.age=age;  
    info.fav=fav;  
    info.weight=weight;  
    let infostr = JSON.stringify(info);  
    console.log(infostr);  
  
})
```



Tell us about your Pet

Pet Name:

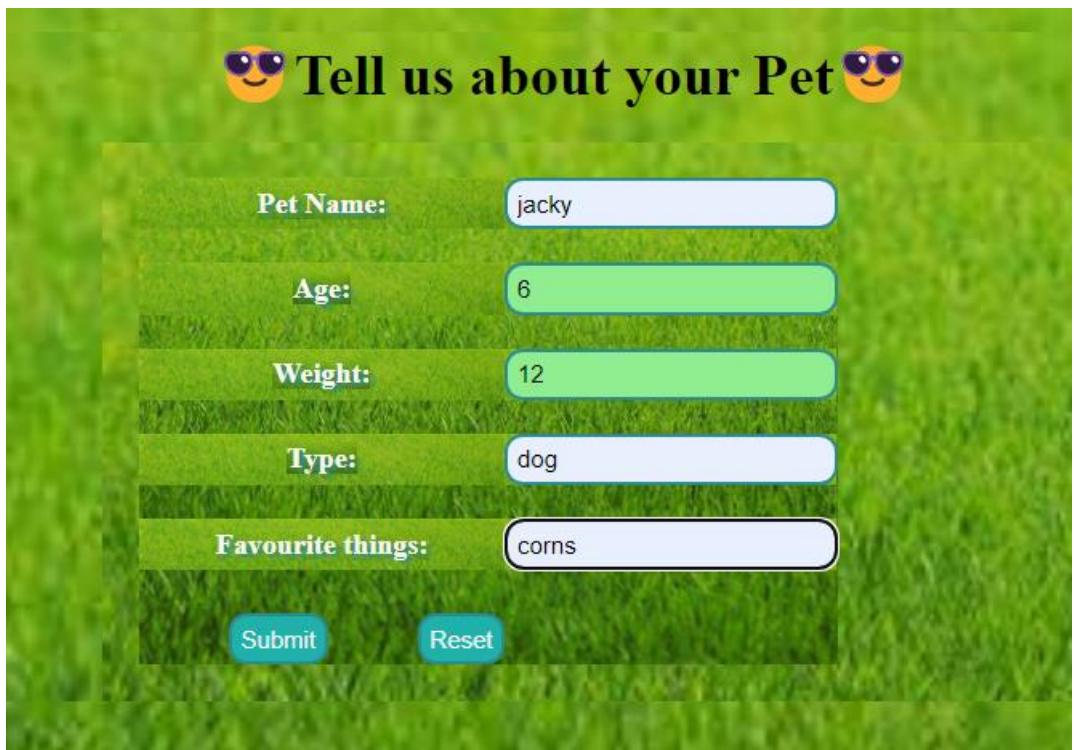
Age:

Weight:

Type:

Favourite things:

Submit **Reset**



The image shows the Chrome DevTools console tab. At the top, it displays "Elements", "Console" (which is selected), "Sources", and other tabs. Below the tabs, there is a search bar with "Filter" and a dropdown for "Default levels". It also shows a count of "1 Issue" with a link to "index.html:58". The main area of the console shows the following output:

```
Live reload enabled. index.html:58
{"name": "jacky", "age": "6", "weight": {"0": {}, "length": 1}, "favourite things": "", "fav": {"0": {}, "length": 1}} index.js:18
```

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.

index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q7</title>
</head>
<body>
    <div></div>
    <button id="btn">Get Data</button>
</body>
<script src="index.js"></script>
</html>
```

index.js

```
// 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.
var btn = document.getElementById('btn');
var div = document.querySelector('div');

btn.addEventListener('click',function(){
    const xhr = new XMLHttpRequest();
    xhr.open('GET','index.json',true);
    xhr.onload= function(){
        console.log(xhr.responseText);
        addDATA(JSON.parse(xhr.responseText));
    }
    xhr.send(null);
});
function addDATA(data){
    div.innerHTML = "";
    for (var i=0; i<=data.length; i++){
        let para = document.createElement('p');
        let htmlP = "<p>" + data[i].name + " " + data[i].species + "</p>";
        para.innerHTML = htmlP;
        div.appendChild(para);
    }
}
```

```

        htmlP = htmlP + 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;
        para.innerHTML = htmlP;
        div.append(para);
        htmlP="";
    }
}

```

index.json

```

[
  {
    "name": "Pluto",
    "age": 3,
    "weight": 12,
    "type": "Pavellion",
    "fav": "eating, playing with ball"
  },
  {
    "name": "Hulk",
    "age": 4,
    "weight": 22,
    "type": "German Sefford",
    "fav": "Biting, eating flesh"
  },
  {
    "name": "Jerry",
    "age": 2.5,
    "weight": 8,
    "type": "cat",
    "fav": "sleeping"
  },
  {
    "name": "Tom",
    "age": 0.5,
    "weight": 0.7,
    "type": "Mouse",
    "fav": "running, eating cheese"
  },
  {
    "name": "Chiku",
    "age": 1,
    "weight": 1.2,
    "type": "Rabbit",
    "likes": "running, eating carrot"
  }
]

```

Pluto is a Pavellion with age 3 years and weight 12kg and Likes undefined

Hulk is a German Sefford with age 4 years and weight 22kg and Likes undefined

Jerry is a cat with age 2.5 years and weight 8kg and Likes undefined

Tom is a Mouse with age 0.5 years and weight 0.7kg and Likes undefined

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

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.

index.html

```
<!-- 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.  
-->  
  
<!DOCTYPE html>  
<html lang="en">  
<head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Q8</title>  
    <link rel="stylesheet" href="styles.css">  
</head>  
<body>  
    <h1>B.Sc. Hons Computer Science course</h1>  
    <table id="one">  
        <tr><th>Requirements</th><th>Info</th></tr>  
        <tr class="nth"><td>Course Name</td>  
            <td>Bachelor of computer science honors</td></tr>  
        <tr class="row"><td>Annual fee</td>  
            <td>30000</td></tr>  
        <tr class="nth"><td>Eligibility</td>  
            <td>Maths in higher secondary, Marks above 90%, Science  
student</td></tr>  
        <tr class="row"><td>Course duration</td>  
            <td>3 years</td></tr>  
        <tr class="nth"><td>Total semesters</td>  
            <td>6</td></tr>  
    </table>  
    <table id="second">  
        <tr><th>Paper Name</th><td>CSA</td><td>C++</td>  
            <td>Java</td>  
            <td>DBMS</td>  
            <td>DSA</td>  
            <td>Android</td>  
        <td>AI</td>  
        <td>IT</td>  
        <td>DAV</td><td>CN</td></tr>
```

```

<tr><th>Credits</th><td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>10</td></tr>
</table>

<h2>Future Possibilities</h2>
<ul>
    <li class="hot">Software Engineer</li>
    <li class="cold">Persuing MCA</li>
    <li class="hot">Being lecturer</li>
    <li class="cold">Full Stack Developer</li>
    <li class="hot">Job at IT companies</li>
</ul>

<input type="button" value="Style Your Page">
<script src="jquery-3.7.1.js"></script>
<script src="index.js"></script>
</body>
</html>

```

index.js

```

$('input').on('click',function(){
    $("body").css("background-color",'lavender')
    $('h1').animate({
        left:"250px",
        opacity:0.4,
        },"slow");
    $(':header').addClass('heading');
    $('h1').animate({
        opacity:1
    },"slow");

    $('table,th,td').css('border','2px solid green').css("text-align",'center');
    $('table th,td').css('padding','15px');
    $('th').css('color','purple');
    $('#one').css('margin-left','250px');
    $('#second').css('margin','50px 0 50px 150px');
    $('tr.row').css('background-color','lightblue');
    $('tr:nth').css('background-color','gold');
}

```

```
$( "li.hot" ).addClass('fav');
$( 'li.cold' ).addClass("fiv");
$( 'h2' ).css('margin-left','20px');
$( 'li.hot:last' ).css('margin-bottom',"20px");

var div = $("input");
div.animate({height: '300px', opacity: '0.4'}, "slow");
div.animate({width: '300px', opacity: '0.8'}, "slow");
div.animate({height: '100px', opacity: '0.4'}, "slow");
div.animate({width: '100px', opacity: '0.8'}, "slow");
});
```

styles.css

```
*{
    margin: 0;
    padding: 0;
}
.heading{
    color:crimson;
    font-family:cursive;
    text-shadow: 3px 2px 3px black;
    padding: 20px;
    margin-left: 250px;
}
.fav{
    background-color: aqua;
}
.fiv{
    background-color: pink;
}

.fav,.fiv{
    padding: 10px;
    margin-left:30px;
}
```

B.Sc. Hons Computer Science course

Requirements

Info

Course Name Bachelor of computer science honors

Annual fee 30000

Eligibility Maths in higher secondary, Marks above 90%, Science student

Course duration 3 years

Total semesters 6

Paper Name CSA C++ Java DBMS DSA Android AI IT DAV CN

Credits	10	10	10	10	10	6	10	10	8	10
---------	----	----	----	----	----	---	----	----	---	----

Future Possibilities

Software Engineer

Pursuing MCA

Being lecturer

Full Stack Developer

Job at IT companies

Style Your Page

B.Sc. Hons Computer Science course

Requirements	Info	
Course Name	Bachelor of computer science honors	
Annual fee	30000	
Eligibility	Maths in higher secondary, Marks above 90%, Science student	
Course duration	3 years	
Total semesters	6	

Paper Name	CSA	C++	Java	DBMS	DSA	Android	AI	IT	DAV	CN
Credits	10	10	10	10	10	6	10	10	8	10

Future Possibilities

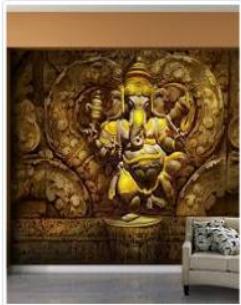
- Software Engineer
- Pursuing MCA
- Being lecturer
- Full Stack Developer
- Job at IT companies

Style Your 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.

index.html

```
<!-- Create an HTML page for an image gallery which shows the use of BOOTSTRAP
to rearrange
and resize its contents on resizing the browser. -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Q9</title>
    <link
        href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
        rel="stylesheet" integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwykc2MPK8M2HN"
        crossorigin="anonymous">
</head>
<body>
    <div class="container align-items-center">
        <div class="row border border-3 border-success">
            <div class="col text-center"></div>
            <div class="col text-center"></div>
            <div class="col text-center"></div>
        </div>
        <div class="row border border-3 border-success">
            <div class="col"></div>
        </div>
        <div class="row border border-3 border-success">
            <div class="col text-center"></div>
            <div class="col text-center"></div>
            <div class="col text-center"></div>
        </div>
    </div>
</body>
</html>
```



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.

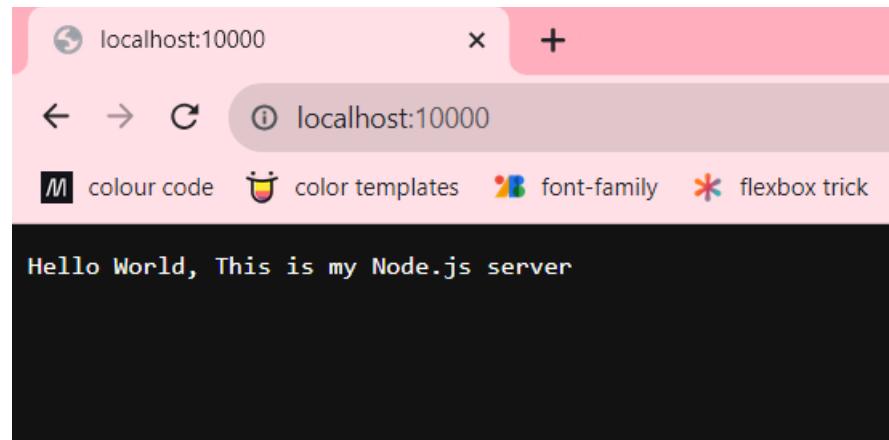
index.js

```
11. var http = require('http');
12.
13. http.createServer((request,response)=>{
14.     response.write("Hello World, This is my Node.js server");
15.     response.end();
16. })
17..listen(10000,()=>console.log('server started at port 10000'));
```

The screenshot shows a terminal window with the following text:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS D:\Assignments\IT\Practicals> cd Q10
PS D:\Assignments\IT\Practicals\Q10> node index.js
server started at port 10000
```



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

```
const express = require("express");
const app = express();
const userRouter = require("./routes/userRoutes");
const mongoose = require("mongoose");

app.use(express.json());
app.use((req,res,next)=>{
    console.log("HTTP Method - "+req.method+ " , URL - "+req.url);
    next();
});
//to know the routes we have

app.use("/users",userRouter);

app.get("/",(req,res)=>{
    res.send("Hello");
});

const PORT = process.env.PORT || 5000

mongoose.connect("mongodb+srv://admin:prachi@cluster0.i7ayrk6.mongodb.net/")
.then(()=>{
    app.listen(PORT,()=>{
        console.log("Server started on port no. "+PORT);
    })
})
.catch((error)=>{
    console.log(error);
})
```