21B81A3325
K-Mahathi
CSIT-A

EWT Assignment-1

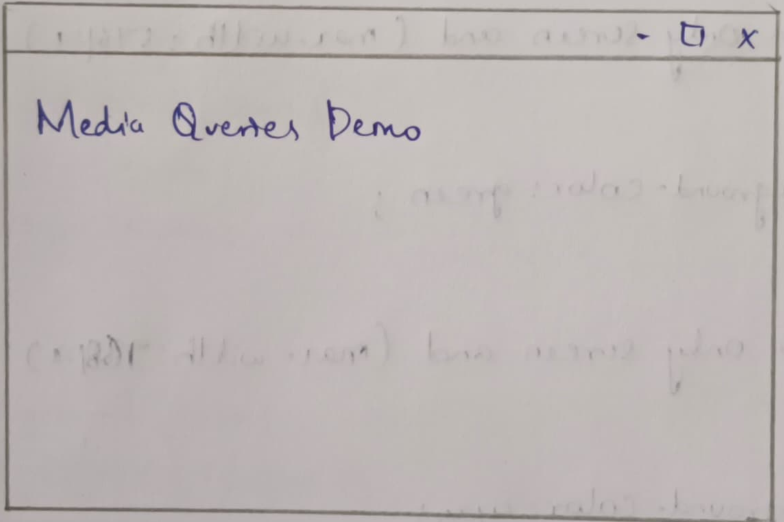
1) Design a responsive web page using CSS3 media queries and viewport consisting of 5 breakpoints representing different scree sizes:

0px - 576px
577px - 768px
769px - 992px
993px - 1200px
1201px - 1400px

At each breakpoint apply different background colors to web page.

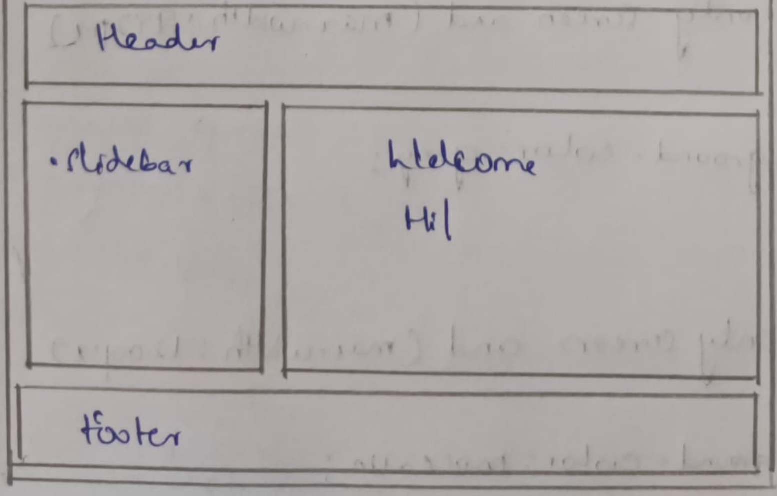
```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width" initial-scale
                                                        =1">
<style>
  @media only screen and (max-width: 576px)
  { div
    { background-color: green;
    }
  }
 @media only screen and (max-width: 768px)
 { div
   { background-color: cyan;
   }
 }
 @media only screen and (max-width: 992px)
 { div
   { background-color: grey;
   }
 }
 @media only screen and (max-width: 1200px)
 { div
   { background-color: moccasin;
 } }
```

```
@media only screen and (max-width:1400px)
{ div
  { background-color: yellow;
  }
}
</style>
</head>
<body>
<div width:400px height:400px>
  <h1>Media Queries Demo</h1>
</div>
</body>
</html>
```



Media Queries Demo

2) Design the following responsive web page using CSS3 grid layout



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width
                                  initial-scale=1">

  <style>
  .gcontainer
  {
    display:grid;
    grid-template-rows: 130px 400px 130px;
    grid-template-columns: 35% auto;
    height: 100%;
  }
  header
  {
    background: yellow;
    grid-column: 1/span 3;
    margin: 1.5rem;
    padding: 1.5rem;
  }
  nav
  { background: blue;
    grid-column: 1/span 1;
    margin: 1.5rem;
    padding: 1.5rem;
  }
  .ar
  { background: green;
    grid-column: 2/span 2;
    margin: 1.5rem;
    padding: 1.5 rem;
  }
```

```
 footer
 { background: red;
   grid-column: 1/ span 3;
   margin: 1.5rem;
   padding: 1.5rem;
 }
</style>
</head>
<body>
 <div class="grontainer" aria-setsize="100%">
  <header>
      Header
  </header>
  <nav>
    <ul><li> Sidebar</li></ul>
  </nav>
  <article class="ar">
    <h1> Welcome </h1>
    <p> Hi! </p>
  </article>
  <footer> Footer </footer>
 </div>
</body>
</html>
```

3) Validate the following XML file using external dtd and XML schema.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE shiporder SYSTEM "C:\ewt\ext dtd.dtd">
<shiporder>
   <orderperson>John Smith</orderperson>
   <shipto>
```

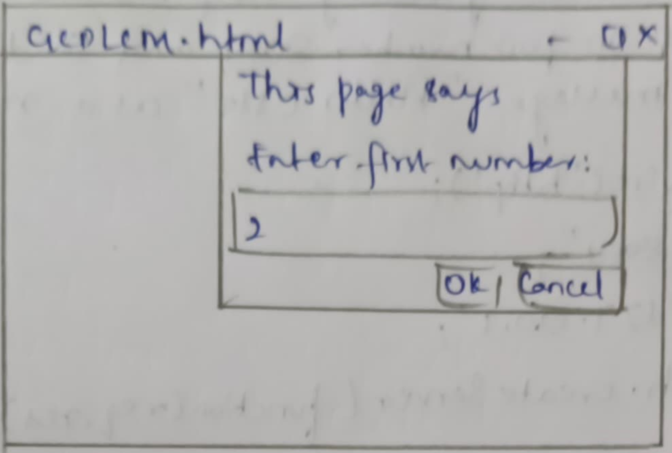
```
        <name>Ola Nordmann</name>
        <address>Langgt 23 </address>
        <city>4000 Stavanger </city>
        <country>Norway </country>
    </shipto>
    <item>
      <title>Empire Burlesque </title>
      <note>Special Edition </node>
      <quantity>1 </quantity>
      <price>10.90 </price>
    </item>
    <item>
        <title>Hide your Heart </title>
        <quantity>1 </quantity>
        <price>9.90</price>
        </item>
    </shiporder>
```

Extdtd.dtd

```
<!ELEMENT shiporder (orderperson,shipto,item+>
<!ELEMENT orderperson (#PCDATA)>
<!ELEMENT shipto (name,address,city,country)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT address (#PCDATA)>
<!ELEMENT city (#PCDATA)>
<!ELEMENT country(#PCDATA)>
<!ELEMENT item(title,note,quantity,price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT note(#PCDATA)>
<!ELEMENT quantity(#PCDATA) >
<!ELEMENT price (#PCDATA) >
```

4) Design a HTML and javascript to perform the following
i) Accept two numbers from user
ii) Find the GCD and LCM of the accepted numbers using function
iii) Display the results with appropriate message

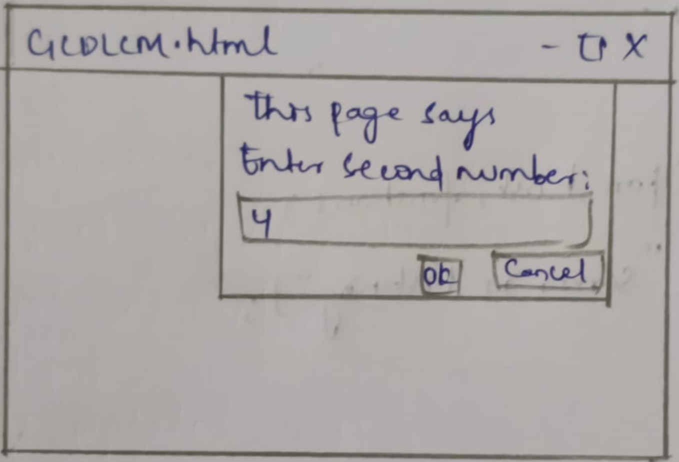
```
<!DOCTYPE html>
<html>
<head>
<script>
  function gcd(a,b)
  { while(a!=b)
    { if(a>b)
        a-=b;
      else
        b-=a;
    }
    document.writeln("Gcd: "+a);
  }
  function lcm(a,b)
  { let max=Math.max(a,b);
    while(max%a||max%b)
      max++;
    document.writeln(" LCM: "+max);
  }
  const a=parseInt(prompt("Enter first number:"));
  const b=parseInt(prompt("Entersecond number:"));
  gcd(a,b);
  lcm(a,b);
</script>
</head>
<body><h1>calculate GCD and LCM </h1></body>
</html>
```



This page says

Enter first number:

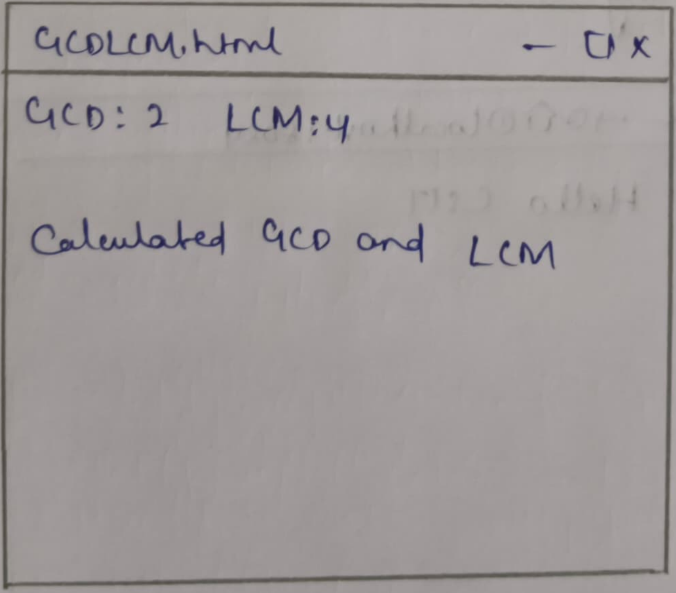
2



This page says

Enter second number:

4



GCD: 2 LCM:4

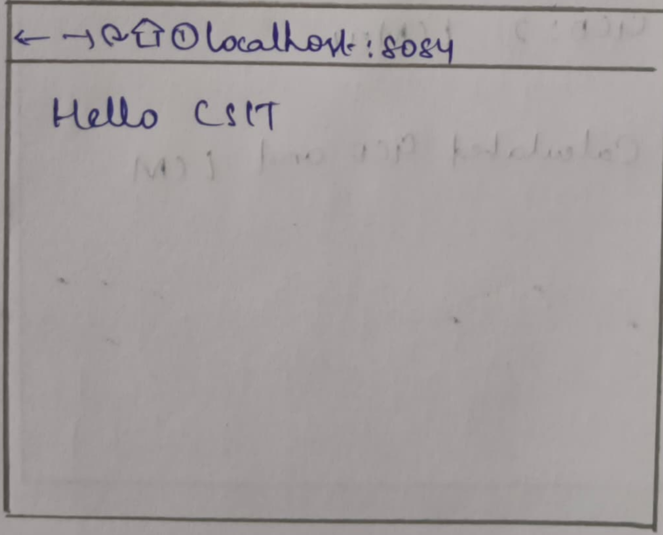
Calculated GCD and LCM

5) Create web server using node.js http module that listens to client requests on port number 8084 and sends an HTML page with a message "Hello CSIT" as a response.

```
Const h = require('http');
Const port = '8084';
Const host = '127.0.0.1';
const server = h.createServer(function(req,res)
{
    res.write("<h1> Hello CSIT </h1>");
    res.end();
});
server.listen(port,host,function()
{ console.log("server is listening");
});
```

Output

```
node serverres.js
Server is listening
```



Hello CSIT