INDIAN INSTITUTE OF INFORMATION TECHNOLOGY SONEPAT



APPLICATION PROGRAMMING ASSIGNMENT WORK

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IT

Student's Signature

Submitted to: MD Arquam

Professor's Signature

1. Creating an HTML web page forms.

Solution:

HTML code:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title> Form Validation</title>
    k rel="stylesheet" type="text/css" href="style.css">
  </head>
  <body>
    <section class="section-form">
    <div class="row--image">
      <div class="row first">
        <h2>Your's feedback is important</h2>
      </div>
      <div class="row second">
        <form method="post" action="#" class="contact-form">
          <div class="row">
            <div class="col span-1-of-3">
               <label for="name">Name <sup>*</su></label>
            </div>
            <div class="col span-2-of-3">
               <input type="text" name="name" id="name" class="name"
placeholder="Your name">
            </div>
          </div>
          <div class="row">
            <div class="col span-1-of-3">
               <label for="email">Email <sup>*</sup></label>
            </div>
            <div class="col span-2-of-3">
               <input type="" name="email" id="email" class="email"
placeholder="Your email">
            </div>
          </div>
          <div class="row">
            <div class="col span-1-of-3">
               <label for="find-us">How did you find us?</label>
            </div>
            <div class="col span-2-of-3">
               <select name="find-us" id="find-us">
```

```
<option value="friends" selected>Friends
                <option value="search">Search engine</option>
                <option value="ad">Advertisement
                <option value="other">Other</option>
              </select>
            </div>
          </div>
          <div class="row">
            <div class="col span-1-of-3">
              <label>Newsletter?</label>
            </div>
            <div class="col span-2-of-3">
              <input type="checkbox" name="news" id="news" checked>
Yes, please
            </div>
          </div>
          <div class="row">
            <div class="col span-1-of-3">
              <label>Drop us a line</label>
            </div>
            <div class="col span-2-of-3">
              <textarea name="message" placeholder="Your
message"></textarea>
            </div>
          </div>
          <div class="row">
            <div class="col span-1-of-3">
              <label>&nbsp;</label>
            </div>
            <div class="col span-2-of-3">
              <input type="submit" class="btn" value="Send it!">
            </div>
          </div>
        </form>
      </div>
    </div>
    </section>
    <script src="apps.js"></script>
  </body>
</html>
```

CSS code:

* {

```
margin: 0;
  padding: 0;
  box-sizing: border-box;
}
html,
body {
  background: linear-gradient(to bottom right, rgba(51, 219, 70, 0.76), rgba(225,
242, 92, 0.81));
  color: #555;
  font-family: 'Lato', 'Arial', sans-serif;
  font-weight: 300;
  font-size: 20px;
  text-rendering: optimizeLegibility;
  overflow-x: hidden;
}
label {
  color: antiquewhite;
  font-weight: 500;
}
.clearfix {zoom: 1;}
.clearfix:after {
  content: '.';
  clear: both;
  display: block;
  height: 0;
  visibility: hidden;
}
.first {
  padding-top: 30px;
}
.second {
  padding-bottom: 30px;
}
.row {
  max-width: 1050px;
  margin: 0 auto;
}
.row--image {
  max-width: 1050px;
  margin: 0 auto;
  background-image: linear-gradient(rgba(0, 0, 0, 0), rgba(0, 0, 0, 0)),
url(123.png);
}
section {
```

```
padding: 60px 0;
}
h1,
h2,
h3 {
  font-weight: 300;
  text-transform: uppercase;
}
h1 {
  margin-top: 0;
  margin-bottom: 20px;
  color: #fff;
  font-size: 240%;
  word-spacing: 4px;
  letter-spacing: 1px;
}
h2 {
  color: #fff;
  font-size: 180%;
  word-spacing: 2px;
  text-align: center;
  margin-bottom: 30px;
  letter-spacing: 1px;
}
h3 {
  color: #fff;
  font-size: 110%;
  margin-bottom: 15px;
}
h2:after {
  display: block;
  height: 2px;
  background-color: #e67e22;
  content: " ";
  width: 100px;
  margin: 0 auto;
  margin-top: 30px;
input[type=submit] {
  font-size: 15px;
  display: inline-block;
  padding: 10px 30px;
  text-decoration: none;
  border-radius: 200px;
```

```
transition: background-color 0.2s, border 0.2s, color 0.2s;
  background-color: antiquewhite;
  border: 1px solid antiquewhite;
  color: black;
  font-weight: 500;
  color: black;
  margin-right: 15px;
}
input[type=submit]:hover,
input[type=submit]:active {
  border: 1px solid #cf6d17;
  background-color: #cf6d17;
  color: white;
}
.contact-form {
  width: 60%;
  margin: 0 auto;
}
.email {
  width: 100%;
  padding: 7px;
  border-radius: 3px;
  border: 1px solid #ccc;
input[type=text],
select,
textarea {
  width: 100%;
  padding: 7px;
  border-radius: 3px;
  border: 1px solid #ccc;
}
textarea {
  height: 100px;
input[type=checkbox] {
  margin: 10px 5px 10px 0;
*:focus {outline: none;}
.row:before,
.row:after {
  content:"";
  display:table;
}
```

```
.row:after {
              clear:both;
           }
           .col {
              display: block;
              float:left;
              margin: 1% 0 1% 1.6%;
           }
           .col:first-child { margin-left: 0; }
           .span-2-of-3 {
              width: 66.13%;
           }
           .span-1-of-3 {
              width: 32.26%;
JavaScript code:
           console.log('application started')
           document.querySelector('.btn').addEventListener('click', ctrlAddItem);
           document.addEventListener('keypress',function(event) {
                  if(event.keyCode === 13 || event.which === 13)
                       ctrlAddItem();
           });
           function getInput() {
                return {
                name: document.querySelector('.name').value,
                email: document.querySelector('.email').value,
             }
           };
           function validateemail()
             var x=input.email;
             var atposition=x.indexOf("@");
             var dotposition=x.lastIndexOf(".");
              if (atposition<1 || dotposition<atposition+2 || dotposition+2>=x.length)
              return false;
```

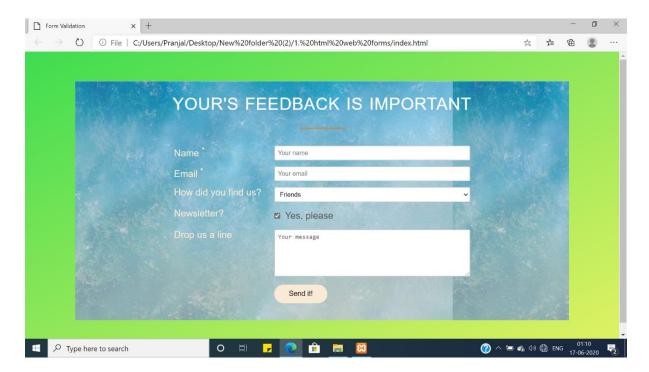
function ctrlAddItem() {

```
input = getInput();
if(input.name === "" && input.email === "")
{
    alert('fill all the manditaory details');
    return;
}
else if(input.name === "" || input.email === "")
{
    alert('fill all the manditaory details');
    return;
}
if(validateemail() === false)
{
    alert("Please enter a valid e-mail address");
    }
else
    {
        alert('Thanks! for giving us your time');
    }
};
```

resource image:



Output:



1. Creating homepage using HTML

Solution:

HTML code:

Index.html

```
<!doctype html>
<html>
<head>
    <title>IIIT Sonepat</title>
</head>
<frameset rows="20%,60%,20%">
    <frame src="top.html">
    <frame src="middle.html">
    <frame src="bottom.html">
    </frameset>
</html>
```

top.html

```
<!doctype html>
<html>
<frameset rows="70%,30%">
```

```
<frame src="toptext.html">
  <frame src="button.html">
  </frameset>
  </html>
```

middle.html

```
<!doctype html>
<html>
<frameset cols="20%,50%,30%">
<frame src="left.html">
<frame src="center.html">
<frame src="right.html">
</frameset>
</html>
```

buttom.html

It is about 40 kms. from ISBT Delhi and 56 Km from Panipat a well known historical place on Sher Shah Suri Marg.

```
</strong>
</body>
</html>
```

toptext.html

button.html

```
<!doctype html>
<html>
```

```
<body>
              <center>
              <button>Home</button>
              <button>Academic</button>
              <button>Placements</button>
              <button>Examinations</button>
              <button>About us</button>
              </center>
             </body>
           </html>
           <!doctype html>
           <html>
             <body bgcolor="0x6ed16e">
              <center>
                 <h2>Registration Form</h2>
              </center>
              Name : Pranjal Sagar
                Roll no.: 11912067
                Branch : IT
                DOB: 16 jan 2001
              </body>
           </html>
center.html
           <!doctype html>
           <html>
             <body bgcolor="white">
            <center>
            <img src="logo.png" height=300px; width="auto" margin-top:100px >
             </center>
           </body>
           </html>
right.html
           <!doctype html>
```

<u>left.html</u>

<html> <style> h4{ color: red;

```
}
</style>
<body bgcolor="0x6ed16e">
<center>
  <h1>About Us</h1>
```

<h4> Indian Institute of Information Technology, Sonepat (IIIT, Sonepat) is one of the Indian Institutes of Information Technology located at Sonepat, Haryana. The academic session of IIIT Sonepat started from its mentor Institute National Institute of Technology, Kurukshetra from year 2014. IIIT Sonepat is a joint venture of the Ministry of Human Resource Development, Government of India, the Govt. of Haryana, with Industries in Public-Private Partnership model and has been declared as the Institute of national importance.

```
</h4>
</center>
</body>
</html>
```

resource image:



Output:



2. Creating XHTML and CSS and understanding its use in creating web pages

Solution:

HTML code:

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="utf-8">
   k rel="stylesheet" type="text/css" href="style.css">
   <title>Omnifood</title>
 </head>
 <body>
   <header>
     <nav>
       <div class="row">
         <img src="logo-white.png" alt="Omnifood logo" class="logo">
         <a href="#features">Food delivery</a>
           <a href="#works">How it works</a>
           <a href="#cities">Our cities</a>
           <a href="#plans">Sign up</a>
         <a class="mobile-nav-icon"><i class="ion-navicon-round"></i></a>
       </div>
     </nav>
     <div class="hero-text-box">
       <h1>Goodbye junk food.<br>Hello super healthy meals.</h1>
       <a class="btn btn-full " href="#">I'm hungry</a>
       <a class="btn btn-ghost " href="#">Show me more</a>
     </div>
   </header>
 </body>
</html>
```

CSS code:

```
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}
```

```
html,
body {
  background-color: #fff;
  color: #555;
  font-family: 'Lato', 'Arial', sans-serif;
  font-weight: 300;
  font-size: 20px;
  text-rendering: optimizeLegibility;
  overflow-x: hidden;
}
.row {
  max-width: 1140px;
  margin: 0 auto;
  }
h1,
h2,
h3 {
  font-weight: 300;
  text-transform: uppercase;
}
h1 {
  margin-top: 0;
  margin-bottom: 20px;
  color: #fff;
  font-size: 240%;
  word-spacing: 4px;
  letter-spacing: 1px;
}
h2 {
  font-size: 180%;
  word-spacing: 2px;
  text-align: center;
  margin-bottom: 30px;
  letter-spacing: 1px;
}
h3 {
  font-size: 110%;
  margin-bottom: 15px;
}
h2:after {
  display: block;
  height: 2px;
  background-color: #e67e22;
  content: " ";
```

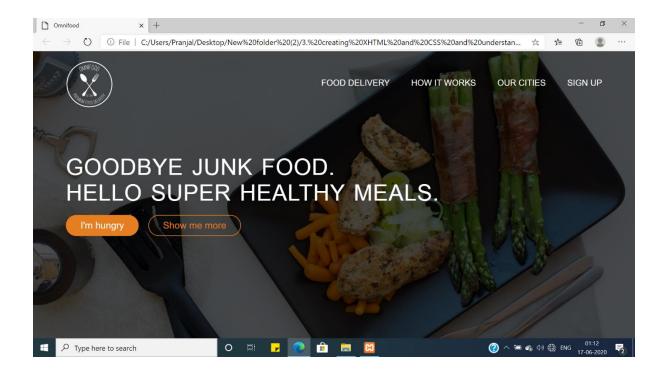
```
width: 100px;
  margin: 0 auto;
  margin-top: 30px;
}
a:link,
a:visited {
  color: #e67e22;
  text-decoration: none;
  padding-bottom: 1px;
  border-bottom: 1px solid #e67e22;
  -webkit-transition: border-bottom 0.2s, color 0.2s;
  transition: border-bottom 0.2s, color 0.2s;
}
a:hover,
a:active {
  color: #555;
  border-bottom: 1px solid transparent;
}
.btn:link,
.btn:visited,
input[type=submit] {
  display: inline-block;
  padding: 10px 30px;
  font-weight: 300;
  text-decoration: none;
  border-radius: 200px;
  -webkit-transition: background-color 0.2s, border 0.2s, color 0.2s;
  transition: background-color 0.2s, border 0.2s, color 0.2s;
}
.btn-full:link,
.btn-full:visited,
input[type=submit] {
  background-color: #e67e22;
  border: 1px solid #e67e22;
  color: #fff;
  margin-right: 15px;
}
.btn-ghost:link,
.btn-ghost:visited {
  border: 1px solid #e67e22;
  color: #e67e22;
}
.btn:hover,
.btn:active,
```

```
input[type=submit]:hover,
           input[type=submit]:active {
              background-color: #cf6d17;
           }
           .btn-full:hover,
           .btn-full:active {
              border: 1px solid #cf6d17;
           }
           .btn-ghost:hover,
           .btn-ghost:active {
              border: 1px solid #cf6d17;
              color: #fff;
           }
           header {
              background-image: -webkit-linear-gradient(rgba(0, 0, 0, 0.7), rgba(0, 0, 0,
0.7)), url(hero.jpg);
              background-image: linear-gradient(rgba(0, 0, 0, 0.7), rgba(0, 0, 0, 0.7)),
url(hero.jpg);
              background-size: cover;
              background-position: center;
              height: 100vh;
              background-attachment: fixed;
           }
           .hero-text-box {
              position: absolute;
              width: 1140px;
              top: 50%;
              left: 50%;
              -webkit-transform: translate(-50%, -50%);
              -ms-transform: translate(-50%, -50%);
              transform: translate(-50%, -50%);
           }
           .logo {
              height: 100px;
              width: auto;
              float: left;
              margin-top: 20px;
           .main-nav {
              float: right;
              list-style: none;
              margin-top: 55px;
           .main-nav li {
```

```
display: inline-block;
  margin-left: 40px;
}
.main-nav li a:link,
.main-nav li a:visited {
  padding: 8px 0;
  color: #fff;
  text-decoration: none;
  text-transform: uppercase;
  font-size: 90%;
  border-bottom: 2px solid transparent;
  -webkit-transition: border-bottom 0.2s;
  transition: border-bottom 0.2s;
}
.main-nav li a:hover,
.main-nav li a:active {
  border-bottom: 2px solid #e67e22;
}
Mobile navi
.mobile-nav-icon {
  float: right;
  margin-top: 30px;
  cursor: pointer;
  display: none;
}
.mobile-nav-icon i {
  font-size: 200%;
  color: #fff;
```

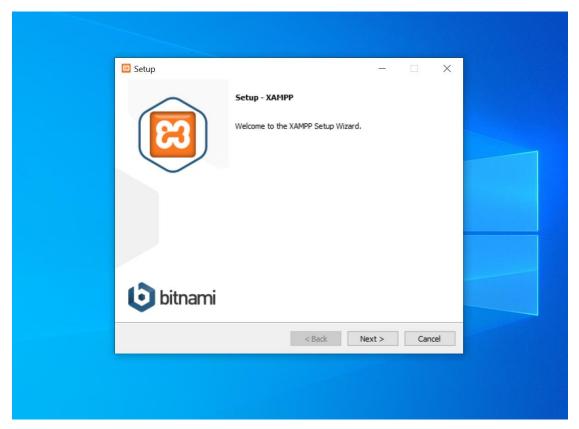
resource image:



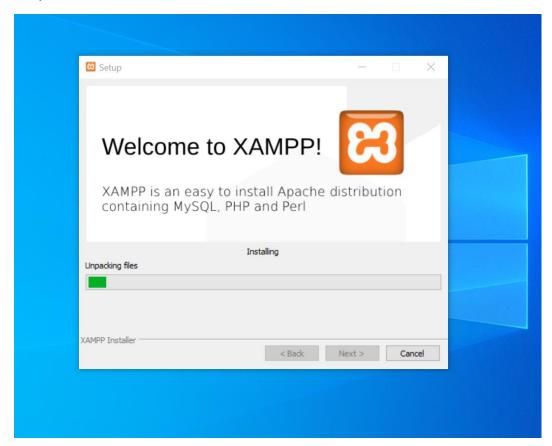


3. Setting up and configuration of Apache Tomcat server Solution:

Step 1 : install XAMPP setup



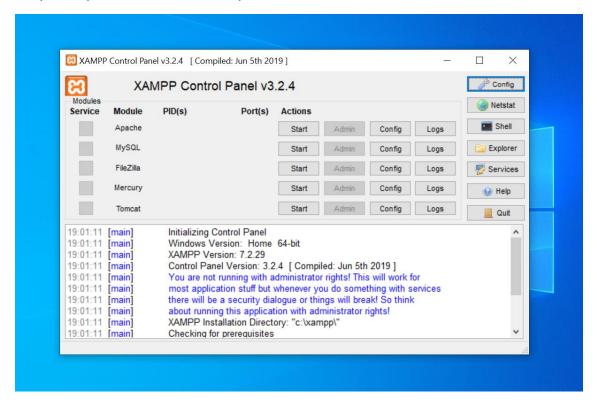
Step 1.1



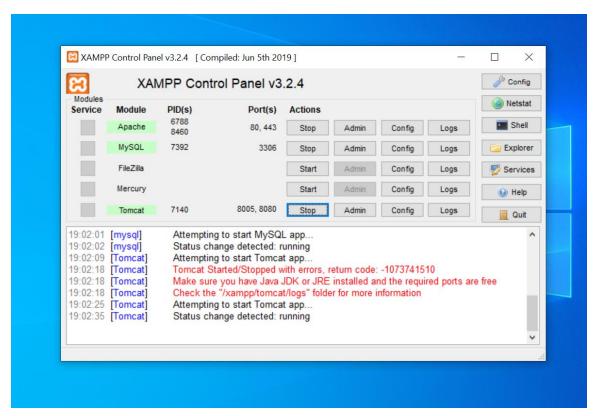
Step 1.2 installation finished



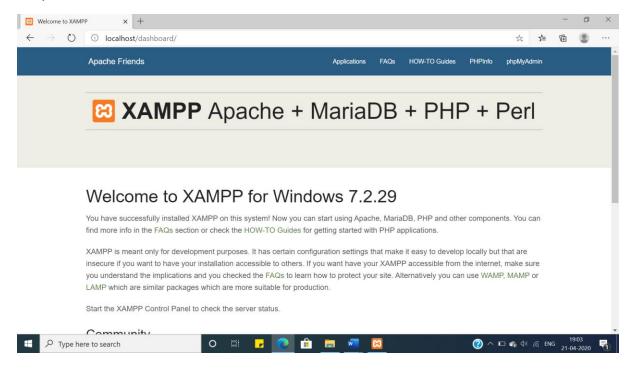
Step 2: open XAMPP control pannel



Step 3: Start apache, MySQI, Tomcat server

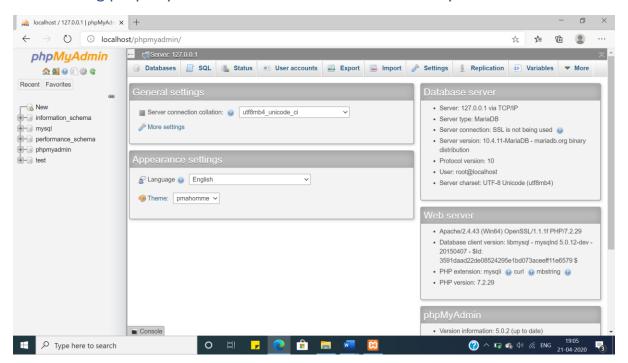


Step 4 : search for localhost in web-broswer

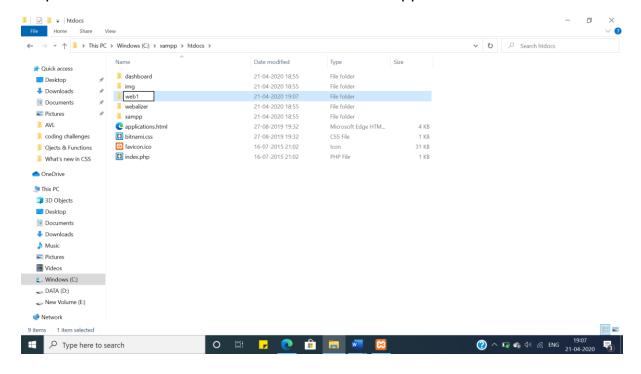


Step 5: to check open phpMyAdmin:-

It is working properly and local host is created successfully

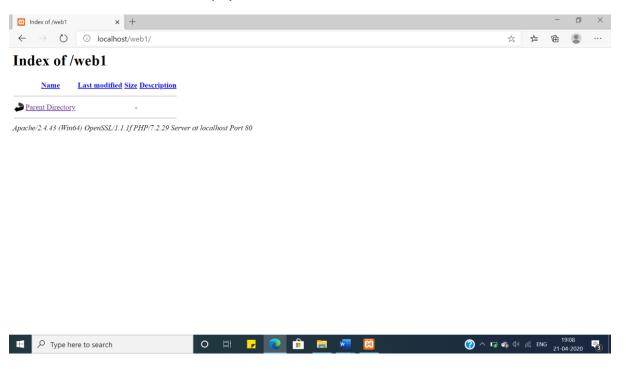


Step 6: create web1 folder in htdocs folder of xampp

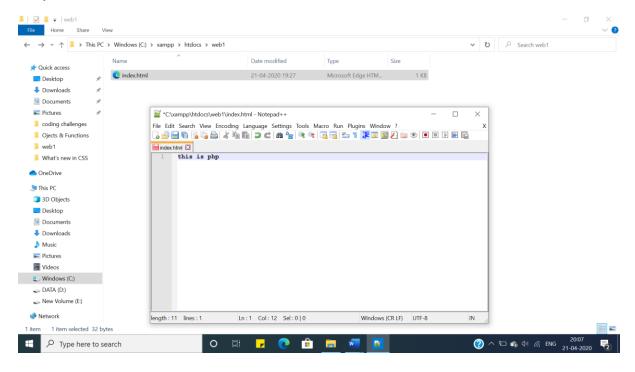


Step 7: Search localhost/web1/

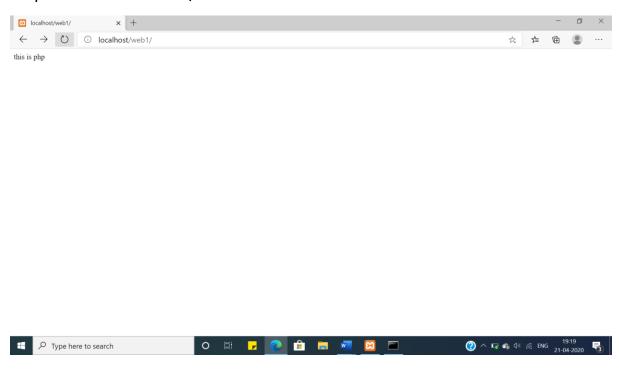
For now web1 folder is empty



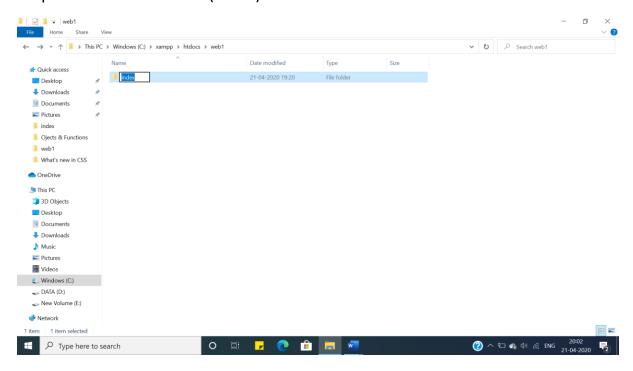
Step 8: then create html file in web1 folder



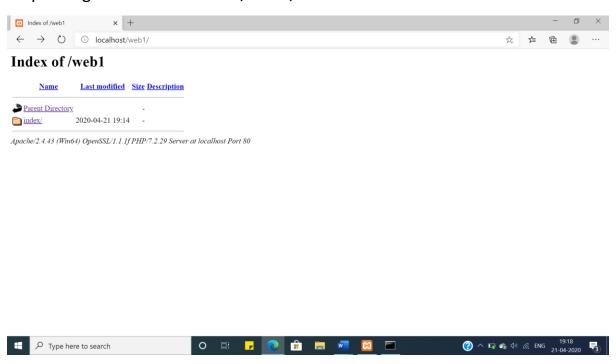
Step 9: search localhost/web1



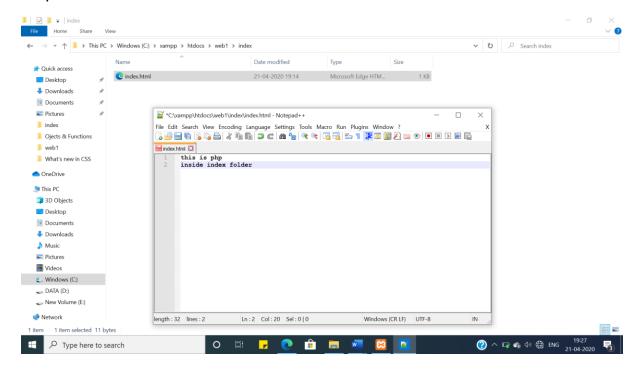
Step 9: create new folder(index) in web1



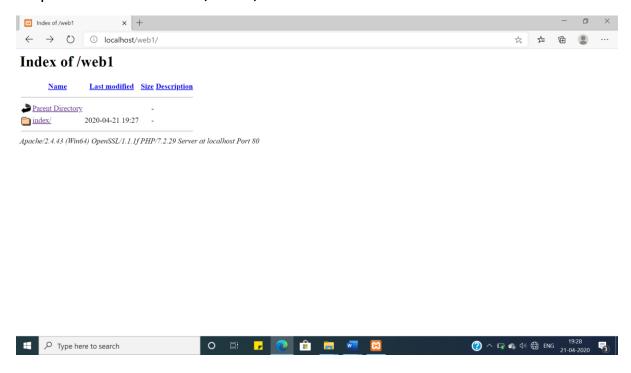
Step 10: again search localhost/web1/



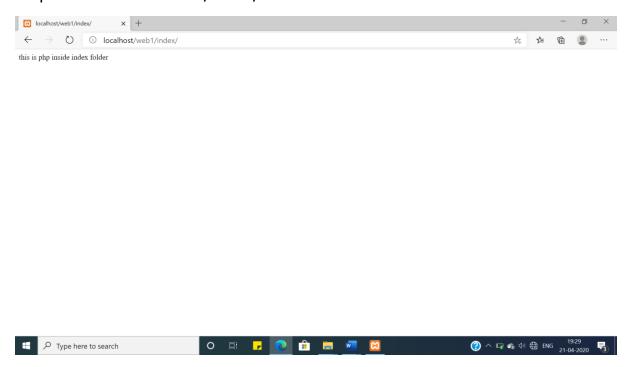
Step 11: create html file inside index folder



Step 12: search localhost/web1/



Step 13: search localhost/web1/index



5. Understanding modification of Web.XML

Solution:

The web.xml Deployment Descriptor file describes how to deploy a web application in a servlet container such as Tomcat. This file is required for every application you deploy on Tomcat. You will find one in the jsp-examples, servlet-examples and ROOT applications provided on a new Tomcat website, and every web application example you download, including inside WAR files. The location of the file is always the same: application root/WEB-INF/web.xml At minimum, the file needs to contain an XML descriptor and an opening and closing tag. Open the configuration file "web.xml". We shall enable the directory listing by changing "listings" from "false" to "true" for the "default" servlet, true like:

6. Creating website using php

Solution:

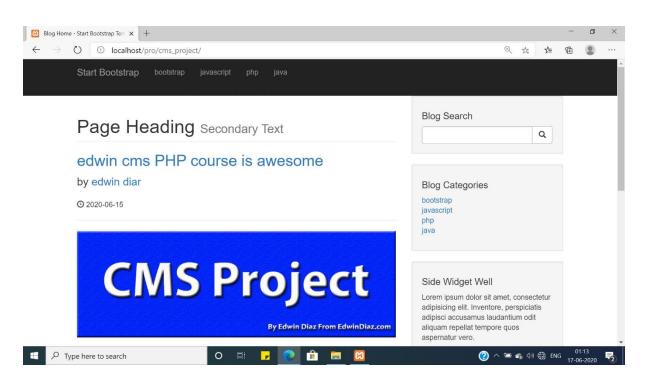
*We are using bootstrap framework do add some functionality.

PHP code:

```
<!--including database-->
<?php include 'includes/db.php' ?>
<!-- including header -->
<?php include 'includes/header.php' ?>
  <!-- including navigation -->
  <?php include 'includes/navigation.php' ?>
  <!-- Page Content -->
  <div class="container">
    <div class="row">
      <!-- Blog Entries Column -->
      <div class="col-md-8">
        <?php
          $query = "SELECT * FROM posts";
          $select all posts query = mysqli query($connection, $query);
          //data in database is stored like an associative array and we can access it like
[key-value] pairs
          while($row = mysqli_fetch_assoc($select_all_posts_query))
          {
              $post_title = $row['post_title'];
              $post author = $row['post author'];
              $post_date = $row['post_date'];
              $post image = $row['post image'];
              $post content = $row['post content'];
        ?>
        <!--making blogs dynamically using templating (we have used php as php only
inside of html tags)-->
        <h1 class="page-header">
          Page Heading
          <small>Secondary Text</small>
        </h1>
        <!-- First Blog Post -->
        <h2>
          <a href="#"><?php echo $post title ?></a>
        </h2>
        by <a href="index.php"><?php echo $post author?></a>
```

```
<span class="glyphicon glyphicon-time"></span> <?php echo $post_date ?>
<hr>
        <img class="img-responsive" src="images/<?php echo $post_image ?>" alt="">
        <hr>
        <?php echo $post_content ?> 
        <a class="btn btn-primary" href="#">Read More <span class="glyphicon"
glyphicon-chevron-right"></span></a>
        <hr>
        <?php } ?>
        <!--we will also make pager dynamically -->
      </div>
    <!-- including slidebar -->
    <?php include 'includes/slidebar.php' ?>
    </div>
    <!-- /.row -->
    <hr>
<!-- including footer -->
<?php include 'includes/footer.php' ?>
```

Output:



7. Understanding JavaScript and writing program in it.

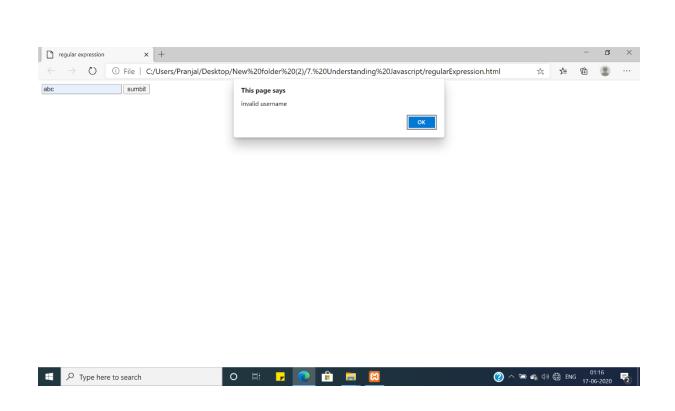
Solution:

```
<html>
  <head>
    <title> regular expression </title>
  </head>
  <body>
    <form action= # >
      <input id = 'uname' placeholder='username' type="text"/>
      <button onclick="valid()" type="button"> sumbit </button>
    </form>
  <script>
    function valid() {
      var username = document.getElementById('uname').value;
      var regx = /E00/;
    if(regx.test(username)) {
        alert('valid username'); }
    else {
        alert('invalid username'); }
    }
  </script>
  </body>
</html>
```

Output:







8. Creating a Web page with back end in PHP and front end in JavaScript and hosting it on Apache Tomcat Server

Solution:

*We are database using bootstrap framework do add some functionality.

Index.html

```
<!-- including header -->
<?php include "includes/admin_header.php"; ?>
  <div id="wrapper">
    <!-- including navigation -->
    <?php include "includes/admin_navigation.php"; ?>
      <div id="page-wrapper">
        <div class="container-fluid">
          <!-- Page Heading -->
           <div class="row">
             <div class="col-lg-12">
               <h1 class="page-header">
                 WELCOME TO ADMIN
                 <small>Author</small>
               </h1>
               <!-- including table-->
               <?php
               if(isset($_GET['source']))
                 $source = $ GET['source'];
```

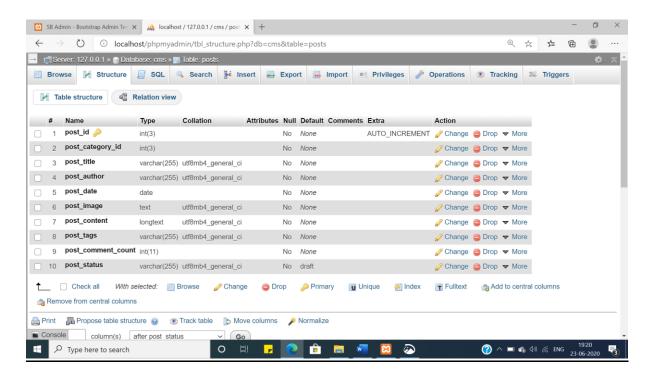
```
}
               else
                  $source = ";
               switch($source)
                  case 'add post':
                    include "includes/add_post.php";
                    break;
                  case 'edit_post':
                    include "includes/edit_post.php";
                    break;
                  default:
                    include "includes/view_all_posts.php";
               }
               ?>
             </div>
           </div>
           <!-- /.row -->
         </div>
         <!-- /.container-fluid -->
       </div>
      <!-- /#page-wrapper -->
  </div>
  <!-- /#wrapper -->
<!-- including footer -->
<?php include "includes/admin footer.php"; ?>
```

view_all_post.php

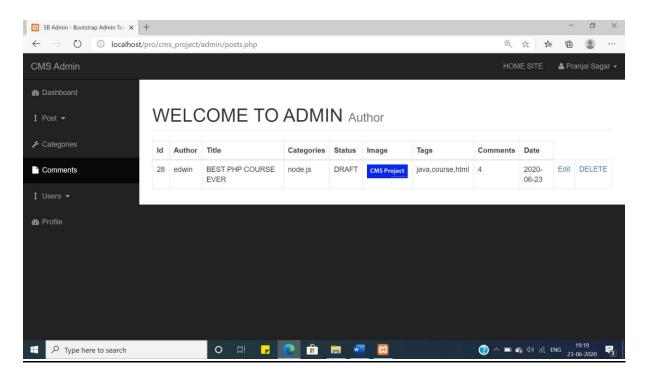
```
<thead>
 Id
  Author
  Title
  Categories
  Status
  Image
  Tags
  Comments
  Date
 </thead>
<!--tbody>tr>td*9-->
```

```
<?php
           $query = 'SELECT * FROM posts';
           $select posts = mysqli query($connection, $query);
           while($row = mysqli_fetch_assoc($select_posts))
              $post id = $row['post id'];
              $post author = $row['post author'];
              $post title = $row['post title'];
              $post_category_id = $row['post_category_id'];
              //echo $post category id;
              $post status = $row['post status'];
              $post image = $row['post image'];
              $post tags = $row['post tags'];
              $post comment count = $row['post comment count'];
              $post date = $row['post date'];
             echo "";
               echo "{$post id}";
               echo "{$post_author}";
               echo "{$post title}";
               $query = "SELECT * FROM categories WHERE cat id = {$post category id}
               $select_categories_id = mysqli_query($connection, $query);
               confirmQuery($select categories id);
               while($row = mysqli fetch assoc($select categories id))
                  $cat id = $row['cat id'];
                  $cat title = $row['cat title'];
                  echo "{$cat title}";
               echo "{$post status}";
               //SPECIAL HANDLING OF IMAGES
               echo "<img src='../images/{$post image}' alt='image' class='img-
responsive' width='100' > </img>";
               echo "{$post tags}";
               echo "{$post comment count}";
               echo "{$post date}";
               echo "<a
href='posts.php?source=edit post&p id={$post id}'>Edit</a>";
               echo "<a href='posts.php?delete={$post id}'>DELETE</a>";
             echo "";
           }
         ?>
```

Local database:



Output:



9. Writing and understanding program In Python

Solution:

```
def print_big(letter):

patterns = {1:' * ', 2:' * * ', 3:'* *', 4:'*****', 5:'****', 6:' * ', 7:' * ', 8:'* * ', 9:'* '}
alphabet = {'A':[1,2,4,3,3], 'B':[5,3,5,3,5], 'C':[4,9,9,9,4], 'D':[5,3,3,3,5], 'E':[4,9,4,9,4] }

for pattern in alphabet[letter.upper()]:
    print(patterns[pattern])

print_big('a')
```

```
Output:
In [26]: print_big('a')
 In [4]: print_big('b')
 In [5]: print_big('c')
         ****
         ****
 In [6]: print_big('d')
 In [7]: print_big('e')
         ****
```