Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

ACADEMIC YEAR: 2020-2021

JOURNAL

COURSE CODE	**: ITL501**
COURSE NAME	**: Internet Programming Lab**
YEAR / SEMESTER	**: TE I.T. / V**
STUDENT NAME	**: Santoshi Sabat**
ROLL NO	**: 60**
DIV	**: A**

COURSE IN-CHARGE: Ms. Shraddha More

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Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T **Div: A**

Student Name :Santoshi Sabat **Roll No: 60**

Experiment No : 01

Experiment Title : Requirement Analysis for Mini Project.

Date of Performance : 01/10/2020 **Date of Submission : 08/10/2020**

Group Members:

1)	**Parth Patel**	**50**
2)	**Chirag Pavesha**	**53**
3)	**Santoshi Sabat**	**60**

Project Title : Sports Website (PCS Sports Club)

Introduction :

Sports play a great in everyone's busy life especially for students. Everyone should involve themselves in the sports activity even for a small time all through the day. Sports are necessary because it brings physical and mental fitness to the person involved in this on regular basis. People who have busy schedule in their life get tired very easily. As we all know that, living a relaxed and comfort life we need a sound mind and a sound body. Education is very necessary to get name, fame and money. In the same way, getting a sound mind and body, everyone must involve in some type of physical activities for which sports is the best way.

There are so many websites about sports but our website provides you so much information as compared to any other website because we are providing modules like, it allows you to participate in national sports events and allows you to join in training sessions in our state with coordinates with their direct interaction. It includes all information regarding most popular sports especially in India and top 4 games in the world. It includes sports calander which includes all info regarding any sport through the world round the clock.

Requirements :

1.1.1 HTML 5

- HTML stands for Hyper Text Mark-up Language and is the standard mark-up language for creating Web pages.

- HTML describes the structure of Web pages using mark-up.

- HTML elements are the building blocks of HTML pages.

- HTML elements are represented by tags.

- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on.

- Browsers do not display the HTML tags but use them to render the content of the page.

1.1.2 Cascading Style Sheets

- CSS is a language that describes style of HTML document.

- It describes how HTML elements should be displayed. It can control the layout of multiple web pages all at once.

- Cascading style sheets can be classified into three sub components i.e. External CSS, Internal CSS and Inline CSS.

1.3.4 PHP

- PHP is a server scripting language and power tool that is used to make dynamic and responsive web pages.

- PHP is widely used, free and efficient alternative to competitors such as Microsoft ASP.

- PHP scripts are executed on the server.

1.3.5 SQL

- SQL stands for Structured Query Language. It is a standard language for storing, manipulating and retrieving data in a database.

- A database most often contains one or more tables. Each table is identified by a name. Tables contain records (rows).

- The Select statement is used to select data from a database. The data returned is stored in a result table called as the result-set.

- The insert statement is used to enter values into your database.

1.3.6 JavaScript

- JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

- JavaScript enables interactive web pages and is an essential part of web applications.

- The vast majority of websites use it for client-side page behavior, and all major web browsers have a dedicated JavaScript engine to execute it.

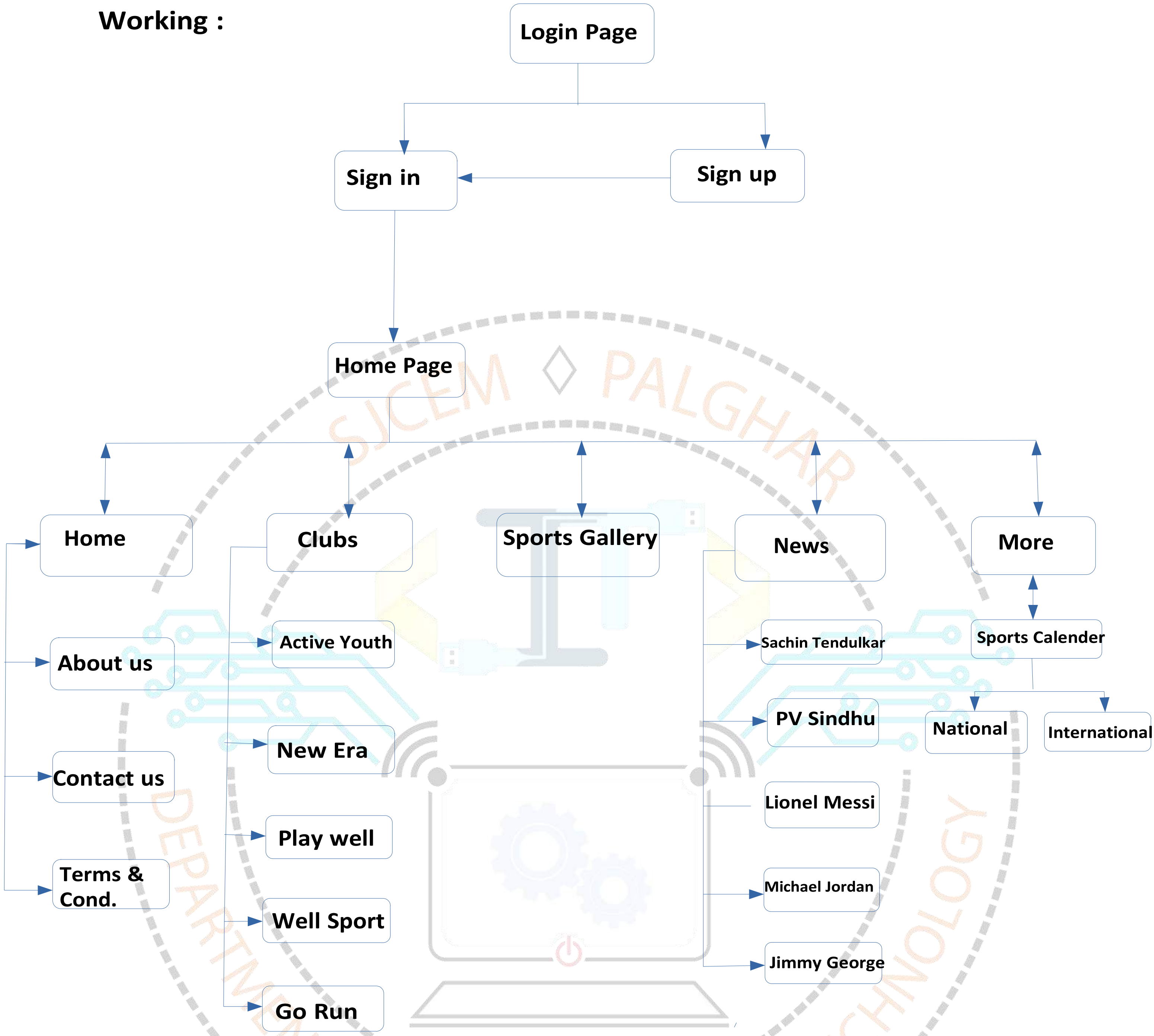
1.3.7 Bootstrap4

- Bootstrap is a free front-end framework for faster and easier web development

- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins

- Bootstrap also gives you the ability to easily create responsive designs.

Working :



- ➢ When the user visits our url it directly redirects to our first login page where the user has two options Signin & Signup. After entering correct necessary details, user gets access to our website.
- ➢ Now, user has many options to surf our website.
- ➢ In club section, user can select his/her club & sports as per their convenience & get registered themselves in our PCS Sports club.
- ➢ In Sports Gallery, user can view different types of sports & games which our club supports & offers memberships.
- ➢ In news section, user can get information about latest news & legendary players details.
- ➢ We have added More Section, where user can get extra information related to sports or Calendar events taking place at different levels i.e National & International.

- About us, Contact us, Privacy policies are also added in homepage of our website where can contact us & give feedback.

- About us, Contact us, Privacy policies are also added in homepage of our website where can contact us & give feedback.

Conclusion : Thus, using all the above mentioned programming languages we devoloped our website on Sports Club.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

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Department of Information Technology A.Y.
2020-2021

Subject: Internet Programming Lab

Class: T.E-I.T **Div: A**

Student Name :Santoshi Sabat **Roll No : 60**

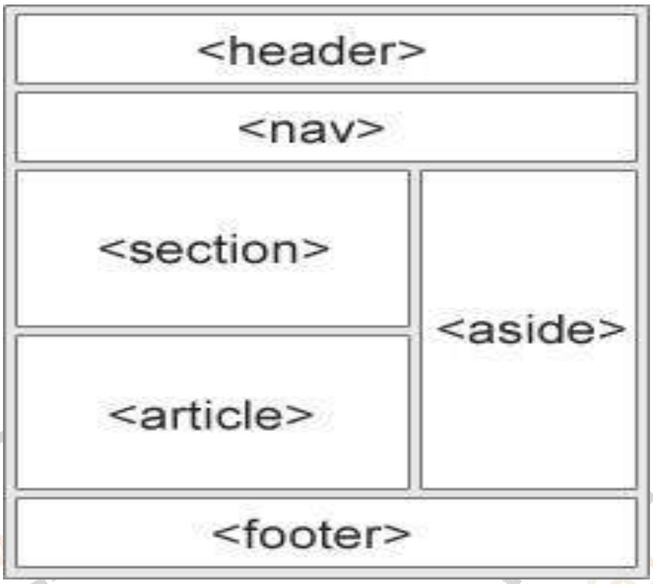
Experiment No: 02

Experiment Title : Design a Web layout using HTML tags.

Date of Performance : 01/10/2020 **Date of Submission : 08/10/2020**

Theory:

- Websites often display content in multiple columns like a magazine or newspaper.
- HTML offers several semantic elements that define the different parts of a web page:



- <header> - Defines a header for a document or a section
- <nav> - Defines a container for navigation links
- <section> - Defines a section in a document
- <article> - Defines an independent self-contained article
- <aside> - Defines content aside from the content (like a sidebar)
- <footer> - Defines a footer for a document or a section
- <details> - Defines additional details
- <summary> - Defines a heading for the <details> element

Source Code :

```
<body>
<header>
        <h2>Food Items</h2>
</header>

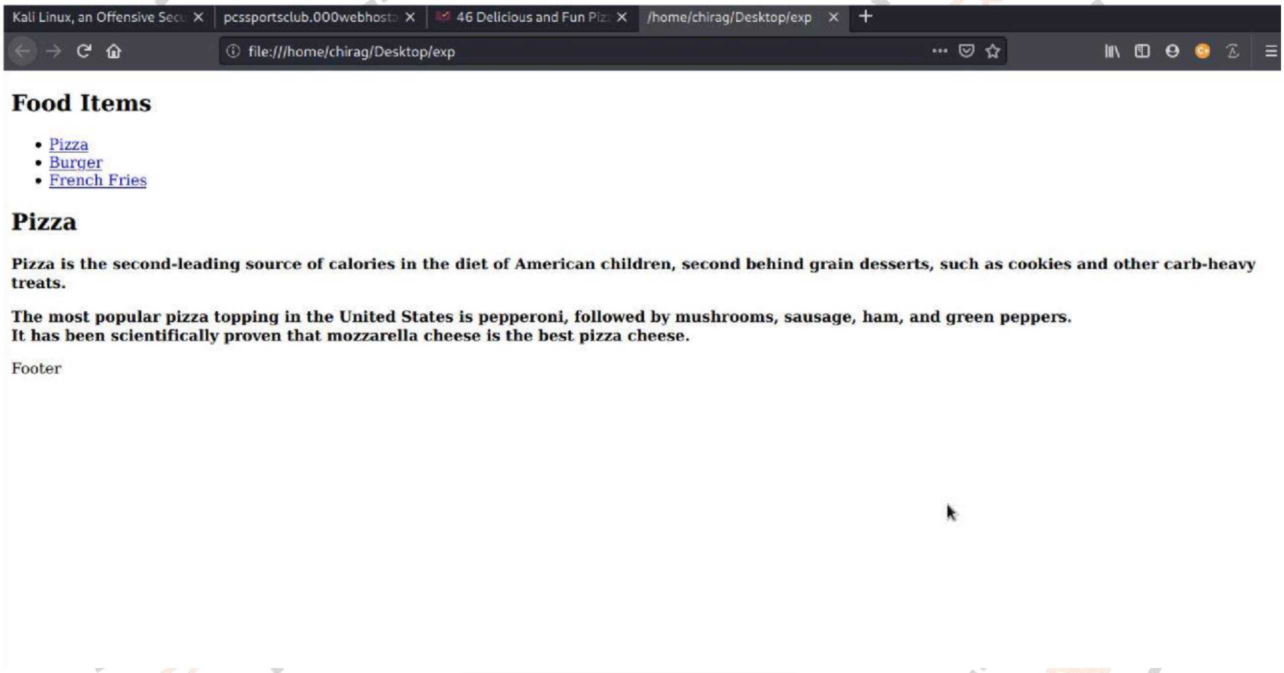
<section>
     <nav>
     <ul>
                <li><a href="#">Pizza</a></li>
                 <li><a href="#">Burger</a></li>
                  <li><a href="#">French Fries</a></li>
        </ul>
        </nav>

        <article>
         <h2>Pizza</h2>
        <b><p>Pizza is the second-leading source of calories in the diet of American
children, second behind grain desserts, such as cookies and other carb-heavy
treats.</p>
        <p>The most popular pizza topping in the United States is pepperoni,
followed by mushrooms, sausage, ham, and green peppers.<br>
It has been scientifically proven that mozzarella cheese is the best pizza
cheese.</p>        </article></b>
</section>

<footer>
        <p>Footer</p>
</footer>

</body> </html>
```

Output :



Kali Linux, an Offensive Secu
pcssportsclub.000webhosta
46 Delicious and Fun Piz
/home/chirag/Desktop/exp
file:///home/chirag/Desktop/exp

Food Items

- Pizza
- Burger
- French Fries

Pizza

Pizza is the second-leading source of calories in the diet of American children, second behind grain desserts, such as cookies and other carb-heavy treats.

The most popular pizza topping in the United States is pepperoni, followed by mushrooms, sausage, ham, and green peppers.<br>It has been scientifically proven that mozzarella cheese is the best pizza cheese.

Footer

<u>**Conclusion**</u> : Hence we have successfully studied web layouts using HTML Tags.

Ms. Shraddha More

Subject In-charge

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Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div: A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 03

Experiment Title : Design Different types of CSS

Date of Performance : 08/10/2020 Date of Submission : 15/10/2020

Theory:

Cascading Style Sheets, supports three different styles you can add to a document.

1. Inline styles :

   Inline styles are styles that are written directly in the tag in the HTML document.
   Inline styles affect only the specific tag they are applied to: Eg :

   ```
   <a href="/index.html" style="text-decoration: none;">
   ```

2. Embedded styles :

   Embedded styles reside in the head of the document. They're encased in **<style>** tags and look much like external CSS files within that portion of the document.

   Eg :

```
       <style>
          h1, h2, h3, h4, h5 {
font-weight: bold;            text-
align: center;
          }
a {
          color: #16c616;
            }
       </style>
```

3. External styles :

   Most websites today use external style sheets. External styles are styles that are written in a separate document and then attached to various web documents. They're called into the main document using a **<link>** tag in the head of the document. External style sheets can either reside on the same server as the HTML, or they can be pulled in from another server entirely. This is often the case with assets, like fonts, which many sites borrow from Google.

   Eg :

   <link rel="stylesheet" type="text/css" href="css/style.css">

Code : Css code

```
body {
font-family: 'Montserrat', sans-
serif; font-weight: 300; font-size:
15px; line-height: 1.7; background-
color: #fff; transition: all 300ms
linear;

}
.cd-header
{
```

```
position: fixed;
width: 100%;
top: 0; left: 0;
z-index: 100; }
.header-wrapper
{
position: relative; width:
calc(100% - 100px);
margin-left: 50px;} .nav-
but-wrap {position:
relative; padding-left:
105px; padding-top: 15px;
margin-top: 26px;
transition: all 0.3s ease-
out;
}
.menu-icon {
height: 30px;
width: 30px;
position:
relative; z-index:
2; cursor:
pointer; display:
block;
}
.menu-icon_line {
height: 3px; width:
30px; display: block;
background-color:
#111; margin-bottom:
7px; cursor: pointer;
transition: background-
color .5s ease;
transition: transform .2s
ease, background-color
.5s ease;
}
```

```
.nav:before,
.nav:after
{
content: "";
position: fixed;
top: 20px; left:
50px; width: 0;
height: 0;
background-color: rgba(20, 21, 26, 0.6); border-
bottom-right-radius: 200%; z-index: -1; transition:
border-radius linear 0.8s,           width cubic-
bezier(0.77, 0, 0.175, 1)0.6s,           height cubic-
bezier(0.77, 0, 0.175, 1)0.6s;       }
.nav:after
{
background-color: rgba(9, 9, 12, 1); transition-
delay: 0s;
box-shadow: 6px 7px 28px 0 rgba(16, 16, 16, 0.3);
}
.nav_content {
position: fixed;
top: 90px; left:
50px; width:
280px; text-
align: left;}
.nav_list
{
position: relative;
padding: 0;
margin: 0; z-
index: 2;
}
.nav_list-item
{
position: relative; display: block; transition-
delay: 0.8s; opacity: 0; text-align: left; color:
#fff; font-family: 'Poppins', sans-serif; font-
```

```
size: 22px; line-height: 1.2; letter-spacing:
2px; transform: translate(30px, 0%);
transition: opacity .2s ease, transform .2s
ease; margin-top: 7px; margin-bottom: 7px; }
.nav_list-item a
{
position: relative; text-
decoration: none; color:
rgba(255, 255, 255, 0.6);
overflow: hidden; cursor:
pointer; font-family: 'Poppins',
sans-serif; font-weight: 600; z-
index: 2; padding-left: 40px;
padding-top: 5px; padding-
bottom: 5px; display: inline-
block; transition: all 200ms
linear;
}

.nav_list-item a:after
{
position: absolute;
content: '';
top: 50%;
left: 0;
width: 5px; height: 0;
opacity: 0; background-
color: yellow; z-index: 1;
transition: all 200ms
linear;
}
.nav_list-item
a:hover:after { height:
100%; opacity: 1; top: 0;
}
.nav_list-item a:hover{ color:
rgba(255, 255, 255, 1);
```

```
}
.nav_list-item.active-nav a{
color: rgba(255, 255, 255, 1);
}
.nav_list-item.active-nav a:after{
height: 100%; opacity: 1; top: 0;
} body.nav-active .menu-icon_line{
background-color: #fff; transform:
translate(0px, 0px) rotate(-45deg);
}
body.nav-active .menu-icon_line-left {
width: 15px; transform: translate(2px, 4px)
rotate(45deg);
}
body.nav-active .menu-icon_line-right {
width: 15px; float: right;
transform: translate(-3px, -3.5px) rotate(45deg); }
body.nav-active .menu-icon:hover .menu-icon_line-left,
body.nav-active .menu-icon:hover .menu-icon_line-right {
width: 15px; } body.nav-active .nav:before, body.nav-
active .nav:after { width: 250px; height: 300px; border-
radius: 15px; } body.nav-active .nav:after { transition-
delay: .1s;
}
body.nav-active .nav:before { transition-
delay: 0s;
}
body.nav-active .nav_list-item {
opacity: 1; transform:
translateX(0%);
}
body.nav-active .nav_list-item:nth-child(0) { transition-
delay: 0.7s;
}
body.nav-active .nav_list-item:nth-child(1) { transition-
delay: 0.8s;
}
```

```
body.nav-active .nav_list-item:nth-child(2) { transition-

delay: 0.9s;

}

body.nav-active .nav_list-item:nth-child(3) { transition-

delay: 1s;

}

body.nav-active .nav_list-item:nth-child(4) { transition-

delay: 1.1s;

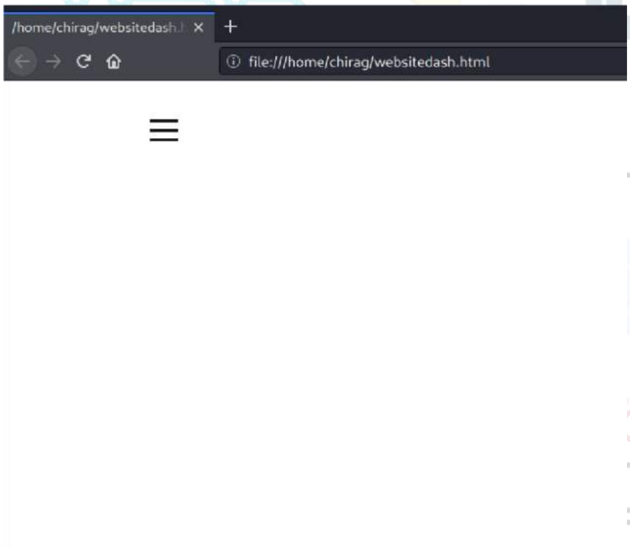
}

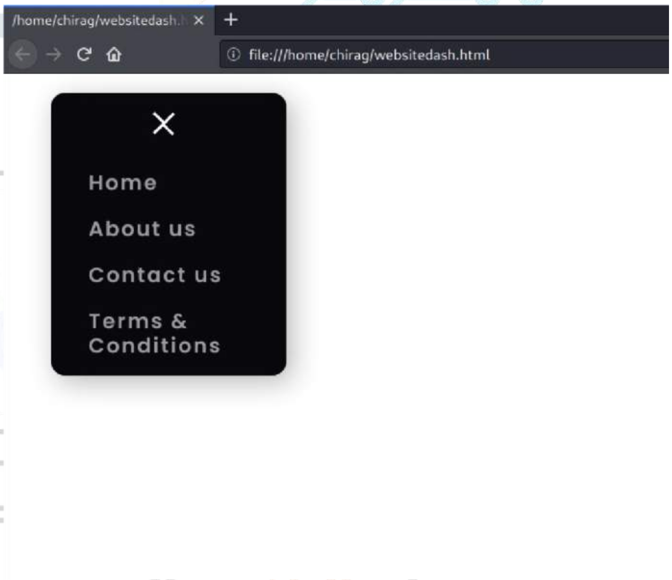
body.nav-active .nav_list-item:nth-child(5) { transition-

delay: 1.2s;

}
```

Output :


/home/chirag/websitedash.h
file:///home/chirag/websitedash.html


/home/chirag/websitedash.h
file:///home/chirag/websitedash.html
Home
About us
Contact us
Terms & Conditions

Conclusion :- Thus we successfully studied & implemented CSS in HTML.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T **Div : A**

Student Name :Santoshi Sabat **Roll No : 60**

Experiment No : 04

Experiment Title : Design web page using CSS3 selectors.

Date of Performance : 15/10/2020 **Date of Submission : 22 /*10*/2020**

AIM: Design web page using CSS3 selectors.

Theory:

CSS selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS selectors into five categories:

- Simple selectors (select elements based on name, id, class)
- Combinator selectors (select elements based on a specific relationship between them)
- Pseudo-class selectors (select elements based on a certain state)
- Pseudo-elements selectors (select and style a part of an element)
- Attribute selectors (select elements based on an attribute or attribute value)

➢ CSS id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element!

➢ CSS class Selector

The class selector selects HTML elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the class name.

➢ CSS Universal Selector

The universal selector (*) selects all HTML elements on the page.

➢ CSS Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions.

Code :

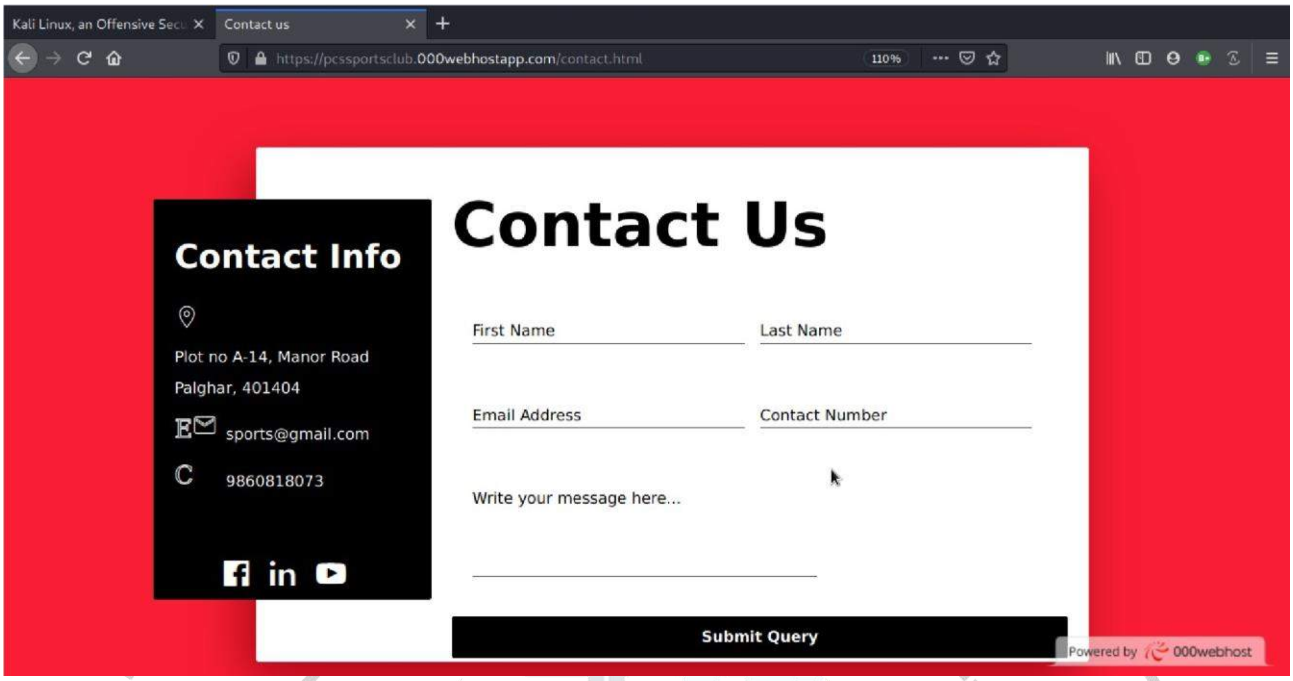
```
*   {              font-family:   "Poppins",
sansserif;     line-height: 30px;
}

body {
    display:                    flex;
justifycontent:          center;
alignitems:                 center;
background: #fa1e34; }

.container {     background: #ffffff;     height:
500px;       display:  flex;       justify-content:
center;     border-radius: 2px;     margin-top:
60px;     margin-left: 50px;     box-shadow: -
10px 20px 50px #91010fcc;
}
.contact-info            {
padding:             20px;
background:     black;
width:             230px;
height:            350px;
color:               #ffffff;
margin-top:      50px;
margin-left:    -100px;
border-radius: 2px;
} span
{     color: #ffffff;     display: inline-
block;       vertical-align:  middle;
font-size:  15px;        margin-top:
2px; } i {     width: 45px;     cursor:
pointer;       color:  black;       font-
size:
15px;     -webkit-text-stroke-width:
1px;     -webkit-text-stroke-color:
#ffffff;     margin-top: 10px;
}
```

```
.social  {        margin-top:
50px;          display:  flex;
justify-content:       center;
align-items: center;
}
#social-icon                {
fontsize: 30px;     color:
#ffffff;
    -webkit-text-stroke-width: 1px;
    -webkit-text-stroke-color: black;
}
#social-icon:hover         {
color: #fa1e34;
}
.contact                {
padding:        20px;
width:          600px;
height: 350px;
}
.heading {     font-size:
60px;    marginbottom:
50px; } .inputname {
    color:                    black;
pointerevents:                none;
margin-top:
0px;     padding: 0;
}
.inputbox {     width:
255px;    margintop:
10px;     margin-left:
20px;
}
.inputname {
    position:  relative;          top:
30px;     left: 0;     transition:
0.25s ease-in-out;
}  input  {          width:  100%;
height:  100%;         margin:  0;
padding: 0;        border: none;
outline: none;    border-bottom:
1px solid black;        padding:
5px; } textarea {        border:
none;              outline:   none;
border-bottom:
1px solid black;     resize: none;
}
.textname {       color: black;
pointerevents:              none;
margin-top: 0px;     padding:
0;    position: relative;     top:
-100px;    left: 0;    transition:
0.25s ease-in-out;
}
.container          .contact          .inputbox
input:focus~span,      .container      .contact
.inputbox  input:valid~span  {        position:
relative;       top: -60px;       font-size: 10px;
color: #341efa;
}
.container          .contact          .inputbox
textarea:focus~span,    .container    .contact
.inputbox textarea:valid~span {      position:
relative;      top: -130px;      font-size: 10px;
color:#341efa;
}
.submit                  {
background:      black;
color: #ffffff;     border-
radius:  2px;       font-
weight: 600;
}
```

Output :


Kali Linux, an Offensive Secu
Contact us
https://pcssportsclub.000webhostapp.com/contact.html
110%
Submit Query
Powered by 000webhost

Contact Info

Plot no A-14, Manor Road
Palghar, 401404

sports@gmail.com

9860818073

Contact Us

First Name

Last Name

Email Address

Contact Number

Write your message here...

Conclusion : Thus, we have successfully studied and implemented CSS selectors in HTML language.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

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Department of Information Technology A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div: A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 05

Experiment Title : Design responsive Web page layout.

Date of Performance : 22/10/2020 Date of Submission : 29/10/2020

Aim: Design responsive Web page layout.

THEORY:

Responsive Web design is the approach that suggests that design and development should respond to the user's behavior and environment based on screen size, platform and orientation. The practice consists of a mix of flexible grids and layouts, images and an intelligent use of CSS media queries. Web pages can be viewed using many different devices: desktops, tablets, and phones. Your web page should look good, and be easy to use, regardless of the device. It is called responsive web design when you use CSS and HTML to resize, hide, shrink, enlarge, or move the content to make it look good on any screen.

Example

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

This will set the viewport of your page, which will give the browser instructions on how to control the page's dimensions and scaling.

Code

```
<!DOCTYPE html>
<html>
<head>
        <title>About us</title>
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <link rel="stylesheet" type="text/css" href="aboutus.css">
</head>
<body>
  <section class="team">
          <div class="container">
                  <h1>Board Members </h1>
                  <div class="card">
                          <div class="box">
                                  <img src="chirag3.jpg" alt="team img" />
                                  <h4>Mr.Chirag Pavesha</h4>
                                  <h5>Chairman Of Sports Club</h5>
```

```
            </div>
        </div>
        <div class="card">
            <div class="box">
                <img src="santoshi2.jpg" alt="team img" />
                <h4>Ms.Santoshi Sabat</h4>
< h5>CEO of Sports Club</h5>
        </div>
        </div>
        <div class="card">
            <div class="box">
                <img src="parth2.jpg" alt="team img" />
                <h4>Mr.Parth Patel</h4>
                 <h5>Vice-Chairman of Sports Club</h5>
            </div>
        </div>
 </div>
  </section>
</body>
</html>
```

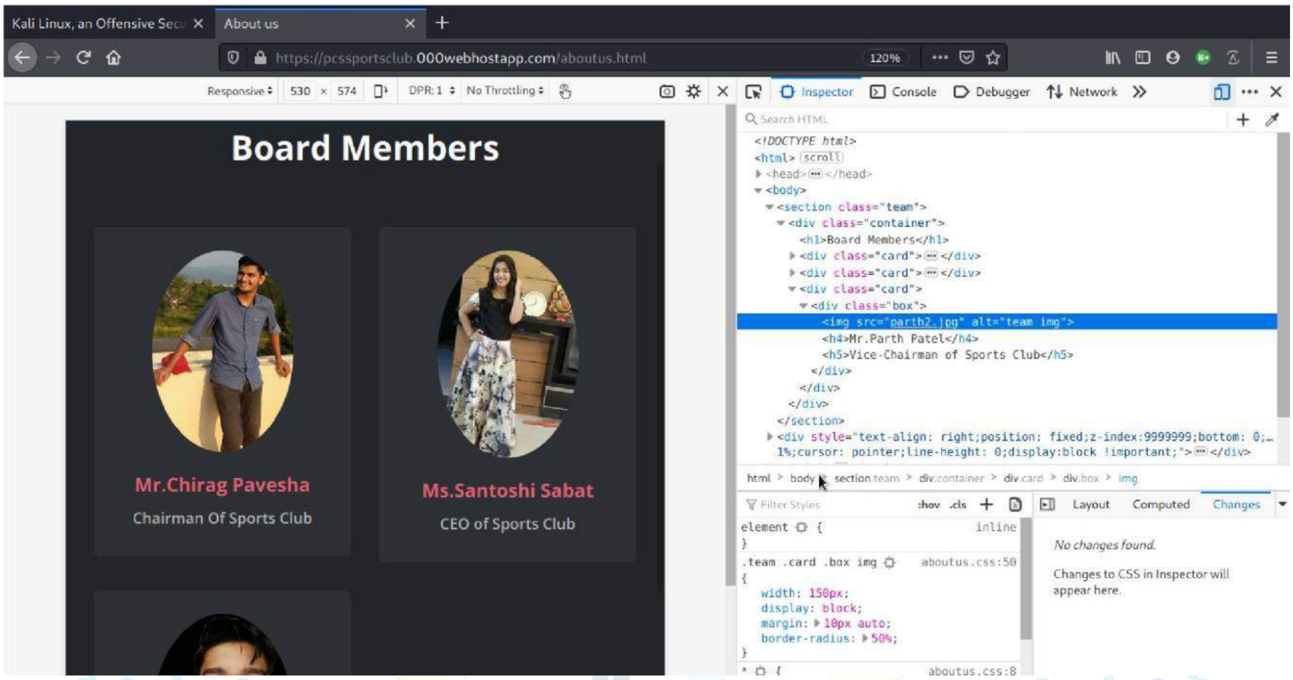
CSS Code :

```
@importurl('https://fonts.googleapis.com/css?
family=Open+Sans:400,600,700&display=swap'); body{
margin:0; padding:0;
}
*{ box-sizing: border-box;
}
.container{
    maxwidth:1140px;
    margin:auto; position:
    relative; min-height:
    1px;
}
.team{ min-height: 100vh;
    padding:60px 15px;
    backgroundcolor:#22
    252a;  float: left;
    width: 100%;
}
.team h1{ font-size: 36px;
    font-family: open
    sans; font-weight: 700;
    color:#ffffff; margin:0;
    paddingbottom:60px;
    textalign: center;
}
.team .card{
    width:25%; float:
    left;
    padding:0px 15px;
}
.team .card .box { padding:15px; background-color:
    #2d3035; border-radius:5px; transition: margin
    1s ease,box-shadow 1s ease;
}
.team .card .box:hover{ margin-top:15px;
    box-shadow:0px 0px 40px black;
}
.team .card .box img{
    width:150px; display:
    block; margin:10px
```

```
          auto; border-
          radius:50%;
}
.team .card .box h4{ font-size:
          20px; fontfamily: open
          sans; margin:20px 0px
          10px; color:#ea5e71;
          textalign: center;
          fontweight: 700;
}
.team .card .box h5{ fontsize:16px;
          font-family:
          open sans; font-weight:
          600; color:#b9b9b9;
          margin:0px 0px 15px; text-
          align: center;
}
.team .card .box p{
          color:#b9b9b9; fontsize:
          15px; font-family: open
          sans; font-weight: 400;
          line-height: 24px; text-
          align: center;
          padding:0px 20px;
}
/*responsive*/
@media(max-width: 991px){
          .team .card{ width:50%;
                    marginbottom:30px;
          }
}
@media(max-width:550px){ .team .card{ width:100%;
```

```
        }
}
```

Output :



Board Members

Mr.Chirag Pavesha
Chairman Of Sports Club

Ms.Santoshi Sabat
CEO of Sports Club

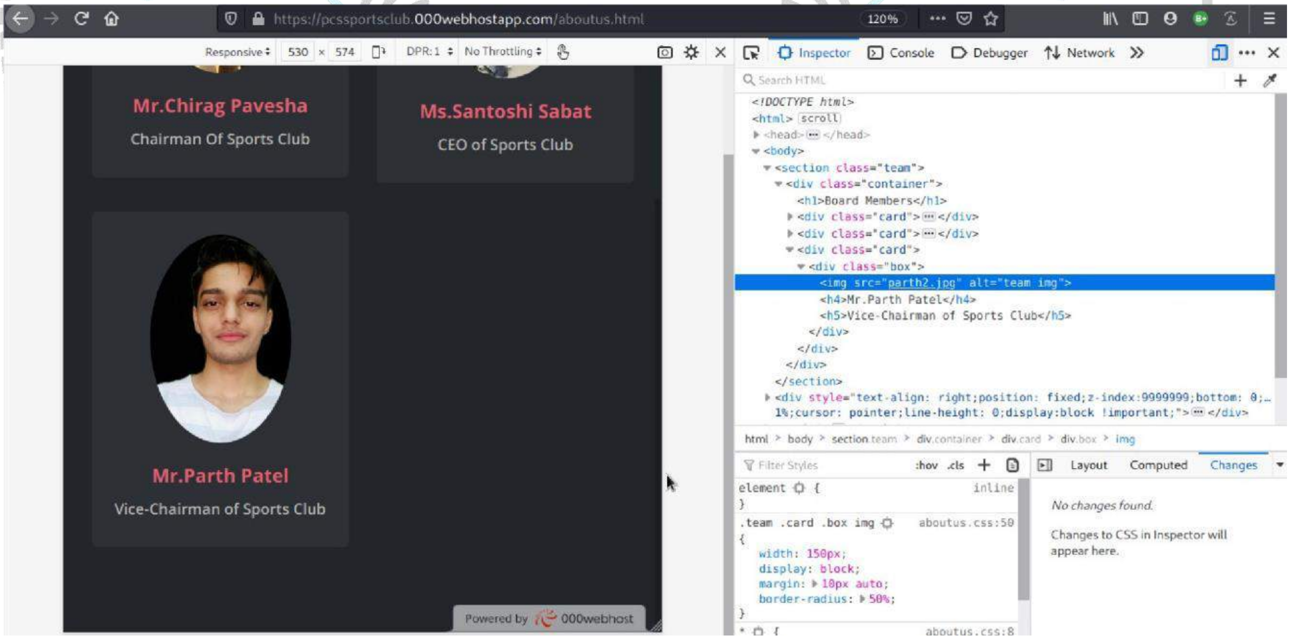
```
<!DOCTYPE html>
<html> scroll
▸ <head>⋯</head>
▾ <body>
  ▾ <section class="team">
    ▾ <div class="container">
        <h1>Board Members</h1>
      ▸ <div class="card">⋯</div>
      ▸ <div class="card">⋯</div>
      ▾ <div class="card">
        ▾ <div class="box">
            <img src="parth2.jpg" alt="team img">
            <h4>Mr.Parth Patel</h4>
            <h5>Vice-Chairman of Sports Club</h5>
          </div>
        </div>
      </div>
    </section>
  ▸ <div style="text-align: right;position: fixed;z-index:9999999;bottom: 0;…
    1%;cursor: pointer;line-height: 0;display:block !important;">⋯</div>
```

html > body > section.team > div.container > div.card > div.box > img

```
element {                         inline
}
.team .card .box img        aboutus.css:50
{
  width: 150px;
  display: block;
  margin: ▸ 10px auto;
  border-radius: ▸ 50%;
}
* {                         aboutus.css:8
```

No changes found.

Changes to CSS in Inspector will appear here.



Mr.Chirag Pavesha
Chairman Of Sports Club

Ms.Santoshi Sabat
CEO of Sports Club

Mr.Parth Patel
Vice-Chairman of Sports Club

Powered by 000webhost

```
<!DOCTYPE html>
<html> scroll
▸ <head>⋯</head>
▾ <body>
  ▾ <section class="team">
    ▾ <div class="container">
        <h1>Board Members</h1>
      ▸ <div class="card">⋯</div>
      ▸ <div class="card">⋯</div>
      ▾ <div class="card">
        ▾ <div class="box">
            <img src="parth2.jpg" alt="team img">
            <h4>Mr.Parth Patel</h4>
            <h5>Vice-Chairman of Sports Club</h5>
          </div>
        </div>
      </div>
    </section>
  ▸ <div style="text-align: right;position: fixed;z-index:9999999;bottom: 0;…
    1%;cursor: pointer;line-height: 0;display:block !important;">⋯</div>
```

html > body > section.team > div.container > div.card > div.box > img

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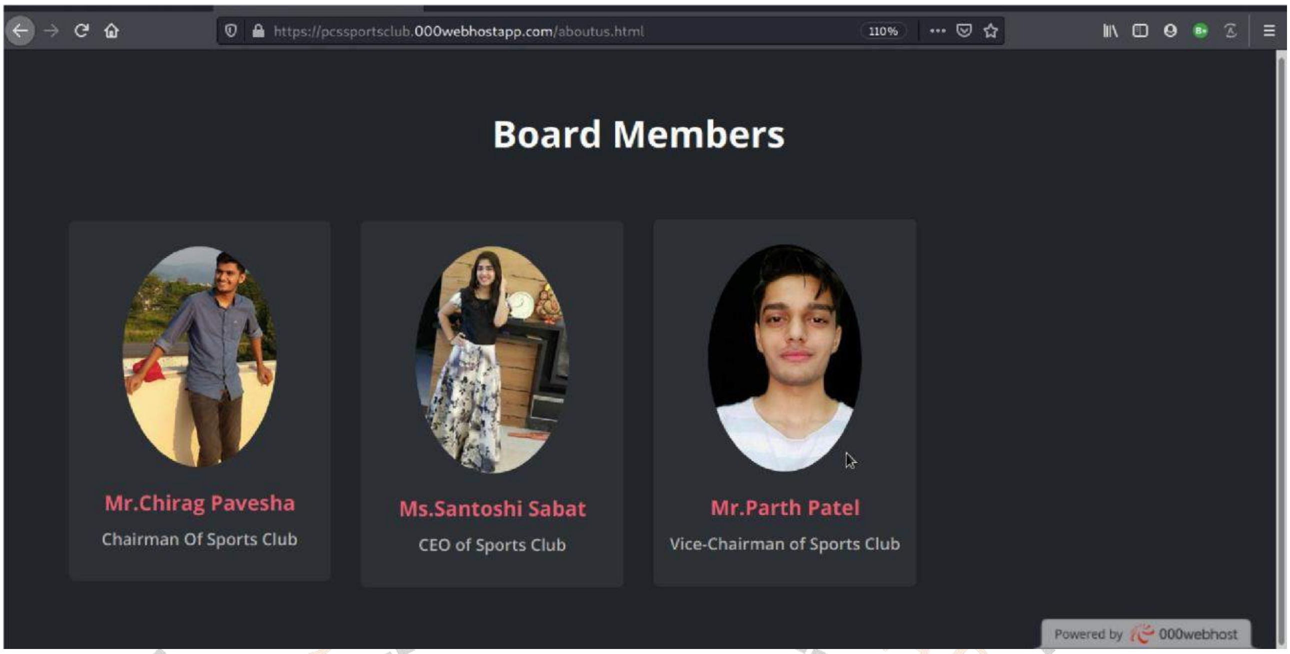
element {                         inline
}
.team .card .box img        aboutus.css:50
{
  width: 150px;
  display: block;
  margin: ▸ 10px auto;
  border-radius: ▸ 50%;
}
* {                         aboutus.css:8
```

No changes found.

Changes to CSS in Inspector will appear here.



https://pcssportsclub.000webhostapp.com/aboutus.html

Board Members

Mr.Chirag Pavesha
Chairman Of Sports Club

Ms.Santoshi Sabat
CEO of Sports Club

Mr.Parth Patel
Vice-Chairman of Sports Club

Conclusion : Hence, we have successfully designed a responsive web page layout.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust’s

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div: A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 06

Experiment Title : Design CSS3 Transformation, Transition, & Animation.

Date of Performance : 29/10/2020 Date of Submission : 05/11/2020

AIM: Design CSS3 Transformation, Transition, & Animation.

Theory:

CSS3 transitions provide a way to control animation speed when changing CSS properties. Instead of having property changes take effect immediately, you can cause the changes in a property to take place over a period of time. To make the transition occur, you must specify at least two things — the name of the CSS property to which you want to apply the transition effect using the transition-property CSS property, and the duration of the transition effect (greater than 0) using the transition-duration CSS property.

The syntax for a CSS3 transition is of the form:

```
transition:  [ <transition-property> ||

            <transition-duration> ||

            <transition-timing-function> ||

            <transition-delay> ]
```

You will notice the final parameter is a delay - this let's you trigger things after an event has occurred. Below is a small demo showing this functionality.

Animation-

An animation lets an element gradually change from one style to another. You can change as many CSS properties you want, as many times you want. To use CSS animation, you must first specify some keyframes for the animation. Keyframes hold what styles the element will have at certain times.

Binding an animation to a <div> element, using the shorthand property:

```
div {
  animation: mymove 5s infinite;
}
```

Always specify the animation-duration property, otherwise the duration is 0, and will never be played.

Code :

```
<!DOCTYPE html>

<!DOCTYPE html>

<html>

<head>

<link rel="stylesheet" type="text/css" href="national.html">

        <title></title>

        <style> .header h1{

        position:relative    ;

        top:18px;
```

```
            left:15px;       color:
            gold; font-size:
            70px;
}
.gall     img{     height:     250px;
            width:300px;       border:
            5px; border-radius:
            20px;
    }
   .gall img:hover { transform: scale(1.5);

  div{

transition: width 2s, height 4s;        animation-
            duration : 4s;

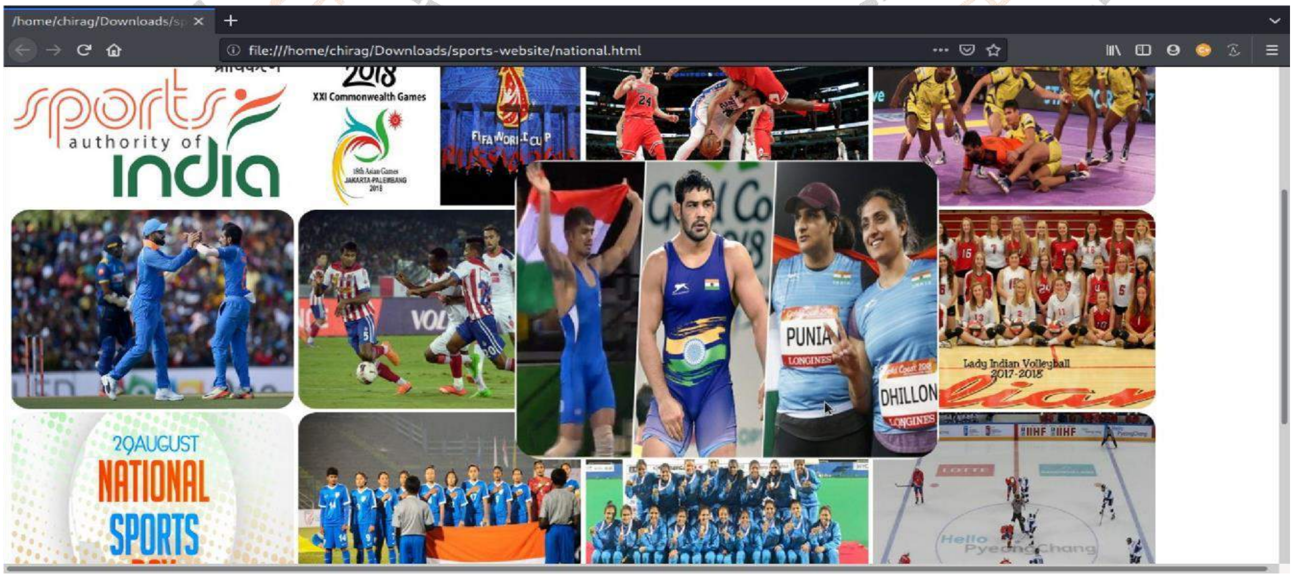
    }

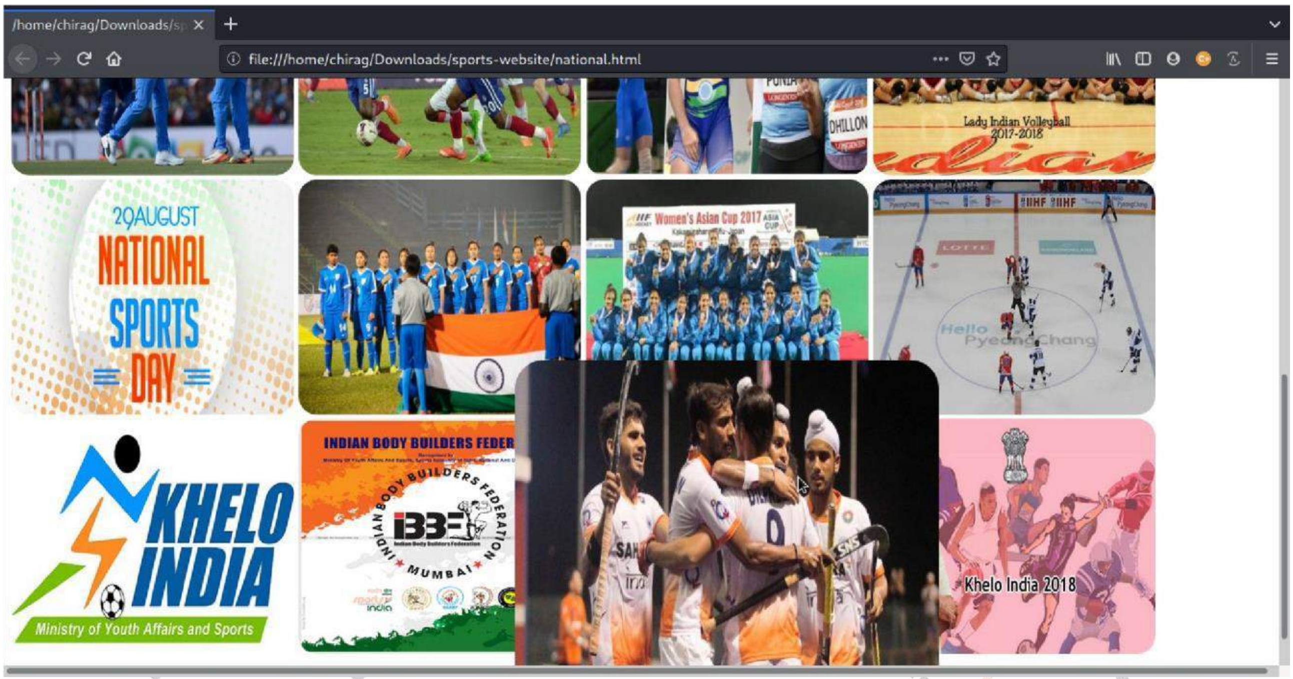
      @keyframes example {
      0% {background-color :red ;}
      25% {background-color :yellow ;}
      50% {background-color :blue ;}
      100% {background-color :green ;}
      }
}     a{     padding:10px     5px;
background-color:silver;
border-radius:5px; color:black;
fontstyle:italic;   fontsize:20px;
textdecoration:none;
align:left;
leftalign:30px;   }
a:hover{ back
</style>
</head>
<body>
<a href="myprj.html" id="new">Home</a> <div class="header">
```

```
            <h1 align="center"><b>NATIONAL SPORTS GALLERY</b></h1> </div>


<div class="gall">
            <image src="m1.jpg" height="200" width="250">
            <image src="m2.jpg" height="200" width="250">
            <image src="m3.jpg" height="200" width="250">
            <image src="m4.jpg" height="200" width="250">
            <image src="m5.jpg" height="200" width="250">
            <image src="m6.jpg" height="200" width="250">
           <image src="m7.jpg" height="200" width="250">
           <image src="m8.jpg" height="200" width="250">
          <image src="n1.jpg" height="200" width="250">
         <image src="n2.jpg" height="200" width="250">
         <image src="n3.jpg" height="200" width="250">
         <image src="n4.jpg" height="200" width="250">
         <image src="n5.jpg" height="200" width="250">
         <image src="n6.jpg" height="200" width="250">
        <image src="n10.jpg" height="200" width="250">
        <image src="n8.jpg" height="200" width="250">
</image>
</div>
</body>
</html>
```

Output :


/home/chirag/Downloads/s
file:///home/chirag/Downloads/sports-website/national.html
sports authority of India
2018
XXI Commonwealth Games
18th Asian Games JAKARTA PALEMBANG 2018
FIFA WORLD CUP
PUNIA
DHILLON
Lady Indian Volleyball 2017-2018
29AUGUST
NATIONAL
SPORTS
Hello PyeongChang


/home/chirag/Downloads/sp
file:///home/chirag/Downloads/sports-website/national.html
Lady Indian Volleyball 2017-2018
29AUGUST
NATIONAL
SPORTS
DAY
Women's Asian Cup 2017
Hello PyeongChang
KHELO INDIA
Ministry of Youth Affairs and Sports
INDIAN BODY BUILDERS FEDER
INDIAN BODY BUILDERS FEDERATION MUMBAI
Khelo India 2018

Conclusion : Hence, We have successfully studied and implemented CSS3 Transitions, Transformation and Animations in our web page

Ms. Shraddha More

Subject In-charge

Aldel Education Trust’s

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T **Div: A**

Student Name : Santoshi Sabat **Roll No : 60**
Experiment No : 07

Experiment Title : Connect Database with webpage using PHP.

Date of Performance : 05/11/2020 **Date of Submission : 18/11/2020**

AIM: Connect Database with webpage using PHP.

Theory:

PHP Data Objects (PDO) is an extension that serves as an interface for connecting to databases.Create MySQL Database at the Localhost. Create Database. Now return to the homepage of PHPMyAdmin. Create a Folder in htdocs. Create Database Connection File In PHP. Create a new PHP file to check your database connection. Run it! Create Database Connection. MySQLi Procedural Query. Connect MySQL Database with PHP.

Code :

```
 <?php
if( isset($_POST['sbmt']) ){ $user_id
= $_POST['user_id'];
$pass = $_POST['pass'];
$u_name =  $_POST['u_name'];
$u_address = $_POST['u_address'];
$u_state = $_POST['u_state'];
$phone_no = $_POST['phone_no'];
$u_email = $_POST['u_email'];
$sex =  $_POST['sex'];
$language = $_POST['lang'];
$u_about = $_POST['u_about'];
// user_id, password , name ,address , state , phone_no , email , sex, language,
about

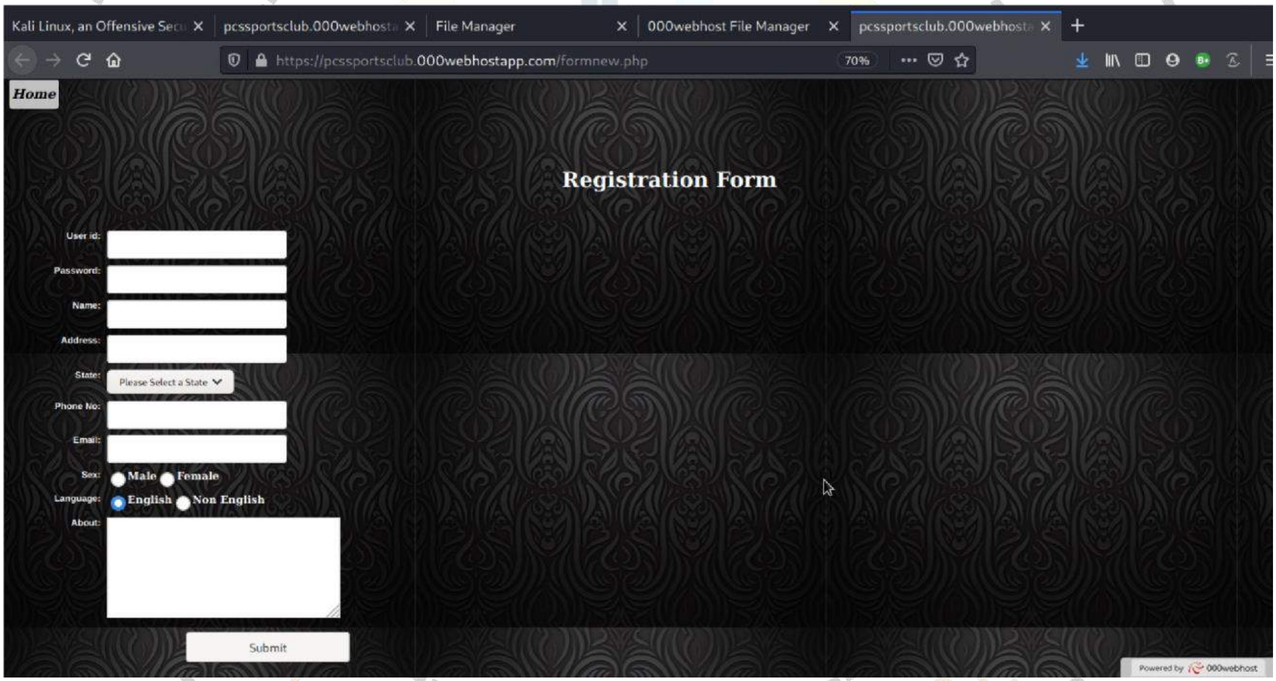
// Check connection

$servername = "localhost";
$username = "root";
$password = "123";
$dbname = "sportsform";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);

$sql = "INSERT INTO sports ( user_id, pass, u_name, u_address, u_state, phone_no,
u_email, sex, language, u_about) VALUES ( '$user_id', '$pass', '$u_name',
'$u_address', '$u_state', '$phone_no', '$u_email', '$sex', '$language',
'$u_about')"; if (mysqli_query($conn, $sql)){
    echo '<script>alert("Registration Successful");</script>';     echo
'<script>window.location.href = "homepage.php";</script>';
}
else
{
 echo '<script>alert("Please try again later");</script>'; echo
'<script>window.location.href = "homepage.php";</script>';
}
}
?>
```

Output :



Kali Linux, an Offensive Secu | pcssportsclub.000webhost | File Manager | 000webhost File Manager | pcssportsclub.000webhost

https://pcssportsclub.000webhostapp.com/formnew.php

Home

Registration Form

User id:

Password:

Name:

Address:

State: Please Select a State

Phone No:

Email:

Sex: ○ Male ○ Female

Language: ● English ○ Non English

About:

Submit

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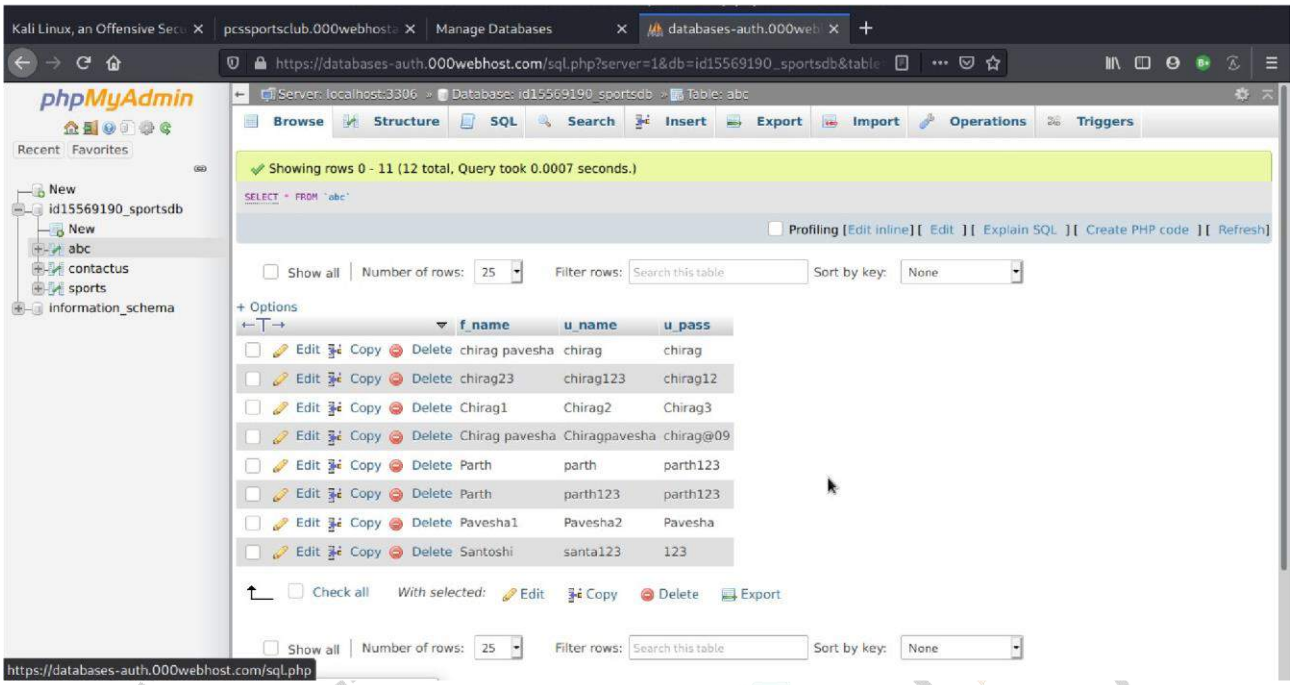

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pcssportsclub.000webhosta
Manage Databases
databases-auth.000webh
https://databases-auth.000webhost.com/sql.php?server=1&db=id15569190_sportsdb&table
phpMyAdmin
Recent Favorites
New
id15569190_sportsdb
New
abc
contactus
sports
information_schema
Server: localhost:3306 » Database: id15569190_sportsdb » Table: abc
Browse Structure SQL Search Insert Export Import Operations Triggers

✓ Showing rows 0 - 11 (12 total, Query took 0.0007 seconds.)

```
SELECT * FROM `abc`
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

				f_name	u_name	u_pass
□	Edit	Copy	Delete	chirag pavesha	chirag	chirag
□	Edit	Copy	Delete	chirag23	chirag123	chirag12
□	Edit	Copy	Delete	Chirag1	Chirag2	Chirag3
□	Edit	Copy	Delete	Chirag pavesha	Chiragpavesha	chirag@09
□	Edit	Copy	Delete	Parth	parth	parth123
□	Edit	Copy	Delete	Parth	parth123	parth123
□	Edit	Copy	Delete	Pavesha1	Pavesha2	Pavesha
□	Edit	Copy	Delete	Santoshi	santa123	123

□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Conclusion : Hence, we have successfully connected database with web page using PHP.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div: A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 08

Experiment Title : Design RIA using AJAX.

Date of Performance : 18/*11/2020* Date of Submission : 19/11/2020

What is AJAX?

AJAX stands for AJAX stands for A Asynchronous synchronous Ja JavaScript and vaScript and X XML. AJAX is a new technique for creating better, ML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script. faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script. It means you fill out a form, hit submit, and get directed to a new page with new information from the server. information from the server. XML is commonly used as the format for receiving server data, although any format, including XML is commonly used as the format for receiving server data, although any format, including plain text, can be used. plain text, can be used.

Rich Internet Application Technology Rich Internet Application Technology AJAX is the most viable Rich Internet Application (RIA) technology so far. It is getting tremendous AJAX is the most viable Rich Internet Application (RIA) technology so far. It is getting tremendous industry momentum and several tool kit and frameworks are emerging. But at the same time, AJAX industry momentum and several tool kit and frameworks are emerging.

AJAX is Based on Open Standards AJAX is Based on Open Standards AJAX is based on the following open standards − AJAX is based on the following open standards − Browser- based presentation using HTML and Cascading Style Sheets (CSS). Browser-based presentation using HTML and Cascading Style Sheets (CSS). Data is stored in XML format and fetched from the server. Data is stored in XML format and fetched from the server.

Behind-the-scenes data fetches using XMLHttpRequest objects in the browser. Behindthe- scenes data fetches using XMLHttpRequest objects in the browser. JavaScript to make everything happen. There are hundreds of criteria for evaluating RIA and AJAX products. So many that it’s easy to lose focus and misjudge priorities.

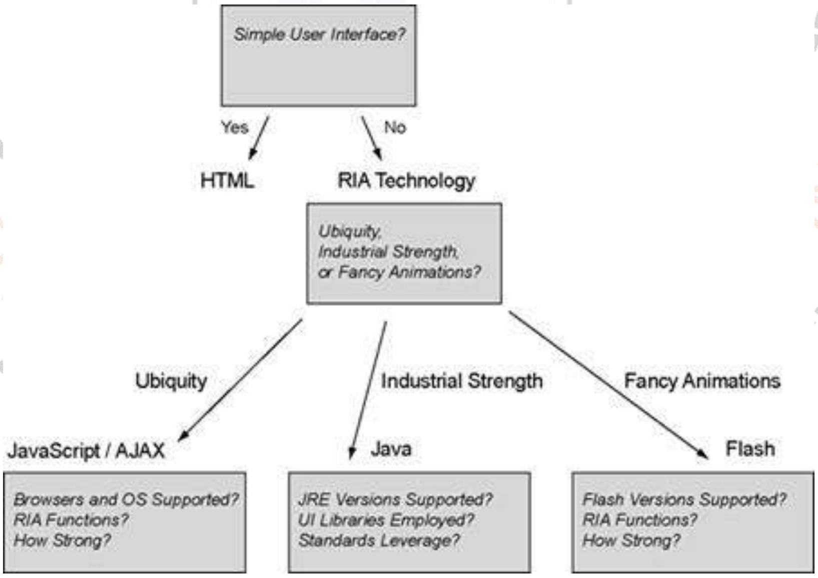


Figure 1: Decision Tree

obscure fundamental issues. Notice that RIA and AJAX are sometimes used as synonyms.
This is not
The focus is entirely on questions you should answer when evaluating RIA products. There is no assessment of specific products, because the individual features of products tend to entirely correct: AJAX is short for “Asynchronous JavaScript And XML”, which essentially limits the term to the set of RIA solutions based on JavaScript. I will adhere to this latter definition, although I fully

agree with authors who argue that the concepts proposed by AJAX are by no means limited to JavaScript [1].

Simple User Interface?

The first and most important question to ask is whether the user interface (UI) of your application is simple enough for HTML. If the answer is yes, then HTML is your best option because it enables ubiquitous end user access via browser.

Simple enough for HTML means that the UI has modest interactivity requirements. However, if any of the following features improves your UI, you should consider RIA technology:

Partial screen updates

Asynchronous communication

Server push

Widgets supporting direct manipulation

Multiple coordinated windows

Modal dialogs

Menus

Keyboard navigation

RIA technology provides rich client capabilities in a web infrastructure. The goal is to combine the advantages of desktop applications with those of web applications. There are three fundamentally different technology options to achieve this: JavaScript, Java, and Flash. Their respective core advantages lead to the next level of the decision tree. **Conclusion** : Hence we have successfully studied RIA using AJAX.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust’s

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div: A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 09

Experiment Title : Case Study ON SQL Injection Prevention.

Date of Performance : 19/11/2020 Date of Submission : 02/11/2020

Theory :

SQL Injection

SQL injection is a code injection technique that might destroy your database. SQL injection is one of the most common web hacking techniques.
SQL injection is the placement of malicious code in SQL statements, via web page input.

SQL in Web Pages
SQL injection usually occurs when you ask a user for input, like their username/userid, and instead of a name/id, the user gives you an SQL statement that you will unknowingly run on your database.
Look at the following example which creates a SELECT statement by adding a variable (txtUserId) to a select string. The variable is fetched from user input (getRequestString):

Example

```
txtUserId = getRequestString("UserId");
txtSQL = "SELECT * FROM Users WHERE UserId = " + txtUserId;
```

The rest of this chapter describes the potential dangers of using user input in SQL statements.

SQL Injection Based on 1=1 is Always True
Look at the example above again. The original purpose of the code was to create an SQL statement to select a user, with a given user id.
If there is nothing to prevent a user from entering "wrong" input, the user can enter some "smart" input like this:
UserId:
Then, the SQL statement will look like this:
SELECT * FROM Users WHERE UserId = 105 OR 1=1;
The SQL above is valid and will return ALL rows from the "Users" table, since OR 1=1 is always TRUE.
Does the example above look dangerous? What if the "Users" table contains names and passwords?
The SQL statement above is much the same as this:
SELECT UserId, Name, Password FROM Users WHERE UserId = 105 or 1=1;A hacker might get access to all the user names and passwords in a database, by simply inserting 105 OR 1=1 into the input field.

Code :

```
<?php
// Initialize the session session_start();
// Include config file require_once "config.php";
// Define variables and initialize with empty values
$username = $password = "";
$username_err = $password_err = "";

// Processing form data when form is submitted if($_SERVER["REQUEST_METHOD"] == "POST"){

// Check if username is empty if(empty(trim($_POST["username"]))){
$username_err = "Please enter username.";
```

```
} else{
$username = trim($_POST["username"]);
}
// Check if password is empty if(empty(trim($_POST["password"]))){
$password_err = "Please enter your password.";
} else{
$password = trim($_POST["password"]);
}
// Validate credentials
if(empty($username_err) && empty($password_err)){
// Prepare a select statement
$sql = "SELECT id, username, password FROM users WHERE username = ?";

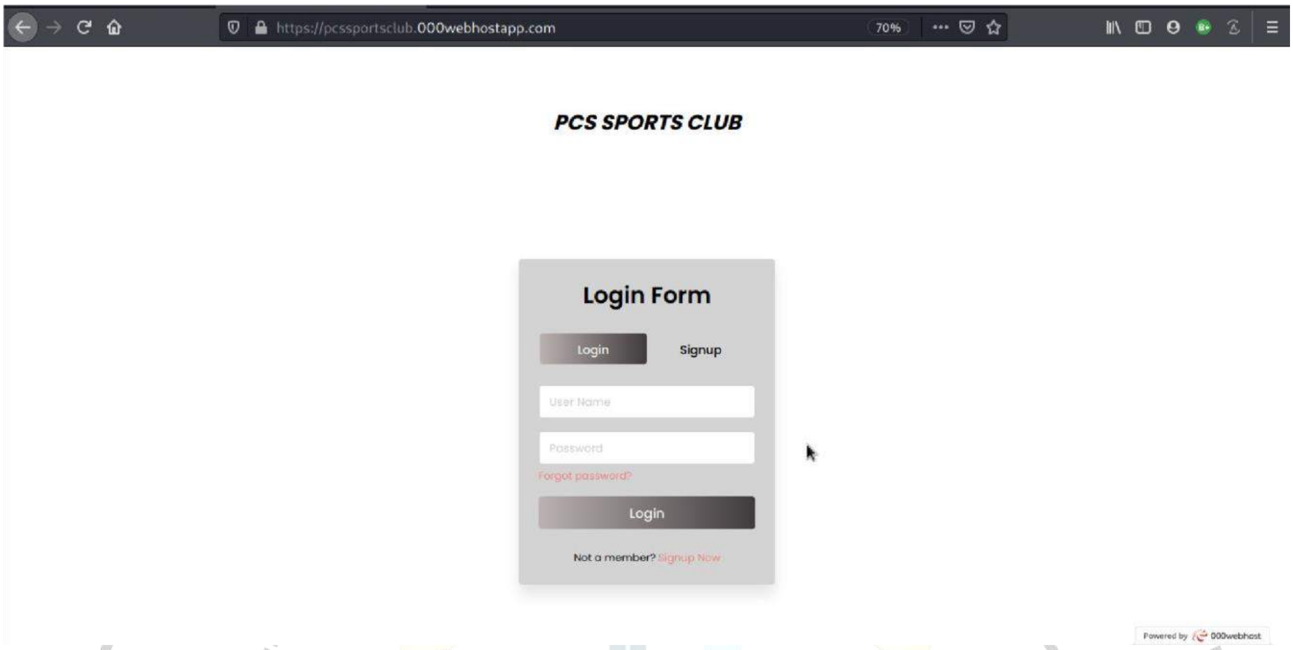
if($stmt = mysqli_prepare($link, $sql)){
// Bind variables to the prepared statement as parameters. mysqli_stmt_bind_param($stmt, "s",
$param_username)
// Set parameters
$param_username = $username;
// Attempt to execute the prepared statement if(mysqli_stmt_execute($stmt)){ //
Store result mysqli_stmt_store_result($stmt);

// Check if username exists, if yes then verify password if(mysqli_stmt_num_rows($stmt) == 1){
// Bind result variables
mysqli_stmt_bind_result($stmt, $id, $username, $hashed_password);
if(mysqli_stmt_fetch($stmt)){
if(password_verify($password, $hashed_password)){
// Password is correct, so start a new session session_start();

// Store data in session variables
$_SESSION["loggedin"] = true;
$_SESSION["id"] = $id;
$_SESSION["username"] = $username;

// Redirect user to index page header("location: index.php"); }
else{
// Display an error message if password is not valid
$password_err = "The password you entered was not valid.";
}
}
} else{
// Display an error message if username doesn't exist
$username_err = "No account found with that username.";
}
} else{
echo "Oops! Something went wrong. Please try again later.";
}
}
// Close statement mysqli_stmt_close($stmt);
```

```
}
// Close connection mysqli_close($link);
}
?>
```



Conclusion : Hence we have successfully studied SQL Injection Prevention.

Ms. Shraddha More

Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T Div : A

Student Name : Santoshi Sabat Roll No : 60

Experiment No : 10

Experiment Title : Host Website with any Free Web Domain.

Date of Performance : 02/12/2020 Date of Submission : 05/12/2020

Theory:

Step 1: Decide What Type of Website You Want

You will typically find 2 types of websites:

- **Static or Basic Websites:** Static websites are simple websites with one or more web pages (called HTML pages). You can build them on your computer with software like Dreamweaver and then upload the pages to your host's server using any FTP software (such as FileZilla).Whenever you need to make changes to your website, you'll have to edit the pages on your computer and upload them again. Since they cannot be modified dynamically, such websites are called static websites.Static websites are cheaper than dynamic websites (below) but come with limited functionality and no option for e-commerce or interactivity.

- **Dynamic Websites:** Dynamic websites contain information that changes, depending on the time of day, the viewer and other factors. They make use of both client-side and server-side scripts to create and update content. Client-side scripts, which run on a user's computer, are mainly used for appearance and interaction purposes. Server-side scripts, which reside on a server and are extensively used by E-commerce and social networking sites, allow users to have individual accounts and provide a customized response for each user. Dynamic websites are CMS-driven, and allow you to directly add and edit content (i.e. text, design, photos, and videos), as well as let your visitors leave comments and start discussions.Dynamic websites are ideal for businesses and organizations. Examples of dynamic websites include blogs, forums, photo galleries and e-commerce sites.

Step 2: Choose Your Hosting Server

Unlike static HTML sites which can be hosted on most web servers, when it comes to web applications, there are basically two types of hosting platforms. Depending on your hosting needs and what you're most comfortable with, you can choose from:

- **Linux Hosting,** which allows running scripts written in PHP, Perl, Python and other Unixoriginated languages, and usually supports PostgreSQL and MySQL databases. This is the most commonly used system today.
- **Windows Hosting,** which allows running ASP scripts utilizing .NET and other Microsoft technologies, and supports Microsoft SQL Server and Access database.

Step 3: Select Your Web Hosting Plan

You will typically find a wide range of services in web hosting, such as:

- **Shared Hosting:** In Shared hosting, you get to share the physical server with other website owners. However, you will have your own separate account (secured with login credentials). Shared hosting is very affordable because the cost of operating the server is shared between you and the other website owners.
- **VPS Hosting (Virtual Private Server Hosting)**: In VPS hosting, every website is stored on a very powerful server that is divided into several virtual compartments. The server software is configured separately so that each unit can function independently. It should be your preferred

option if you have high-security concerns but don't want to invest in a faster (but costlier) dedicated server.

- **Dedicated Hosting:** Dedidcated hosting offers you an entire server for yourself, thereby making it faster, more secure…and costlier. It is the ideal solution for larger businesses and high-traffic websites because it allows for maximum customization, configuration, installation and flexibility.
- **Cloud Hosting:** Cloud hosting allows multiple virtual servers (clouds) to work together to host a website or a group of websites. It offers unlimited ability to handle sudden traffic spikes. A cloudhosted website is not limited to a single server, and the resources allocated to it can shrink or expand dynamically, depending on how much traffic you get. It's a great option for large websites, including e-commerce websites, newsletters and blogs.

Step 4 : Upload Your Website

You can now upload your website to your account by connecting to the server using either cPanel's **File Manager** or **FTP Client** (such as FileZilla) – after which your website will go live.

- How to Upload Your Website Using cPanel File Manager
    1. Log in to your cPanel.
    2. Click on the icon titled File Manager.
    3. Select Web Root and click on Go.
    4. Add all the files and folders under public_html and their respective domain folder.

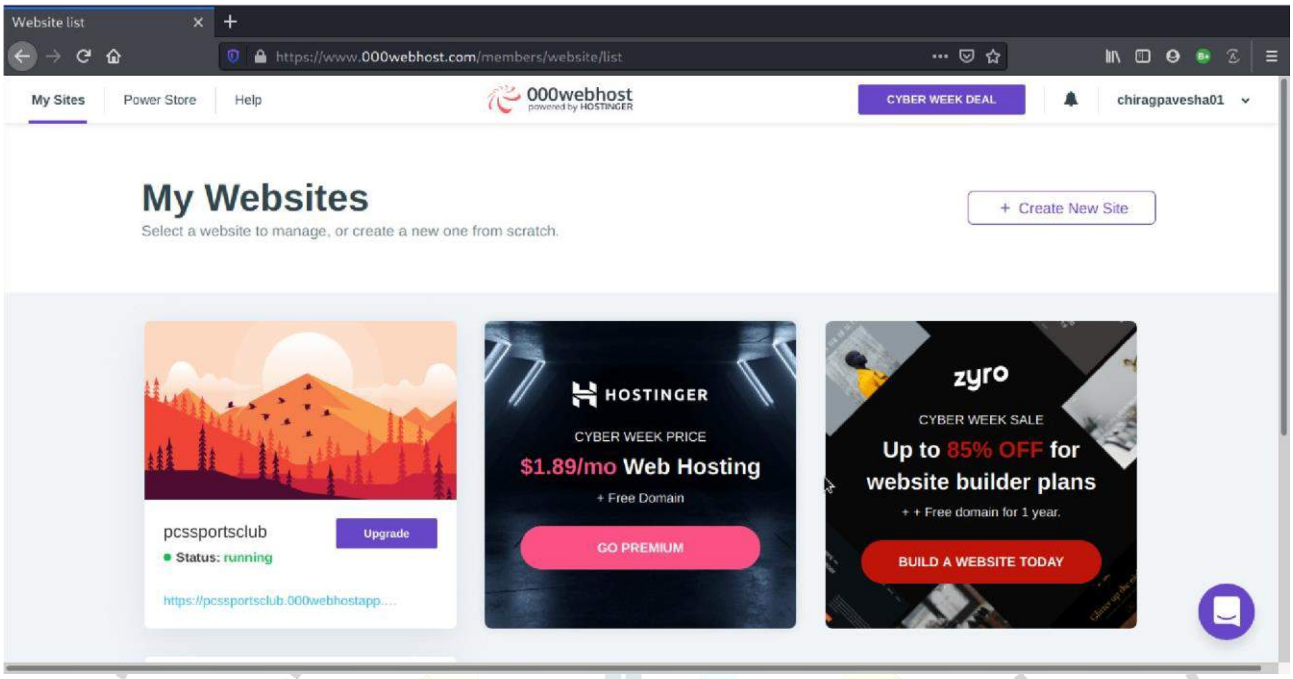
Step 5: Change Your DNS Address

After you have purchased your web hosting, you will get Name Servers (also known as Domain Name Servers or DNS) – which is the Internet's equivalent of a phone book that contains IP Addresses3. To get your website up and working, you will need to change the Name Servers of your domain. It's a simple but mandatory step for you to get started.

1. Go to your Domain Control Panel via
2. Enter your registered email address and password.
3. Click on the Domain Name for which you need to change the Name Servers.
4. In the domain registration, section, click on the Name Servers option.
5. Replace the existing Name Servers with the ones provided by your current web host, and click on the Update Name Servers button.

Now your website will be live, and you can visit your website by entering Url of your website.

Output :



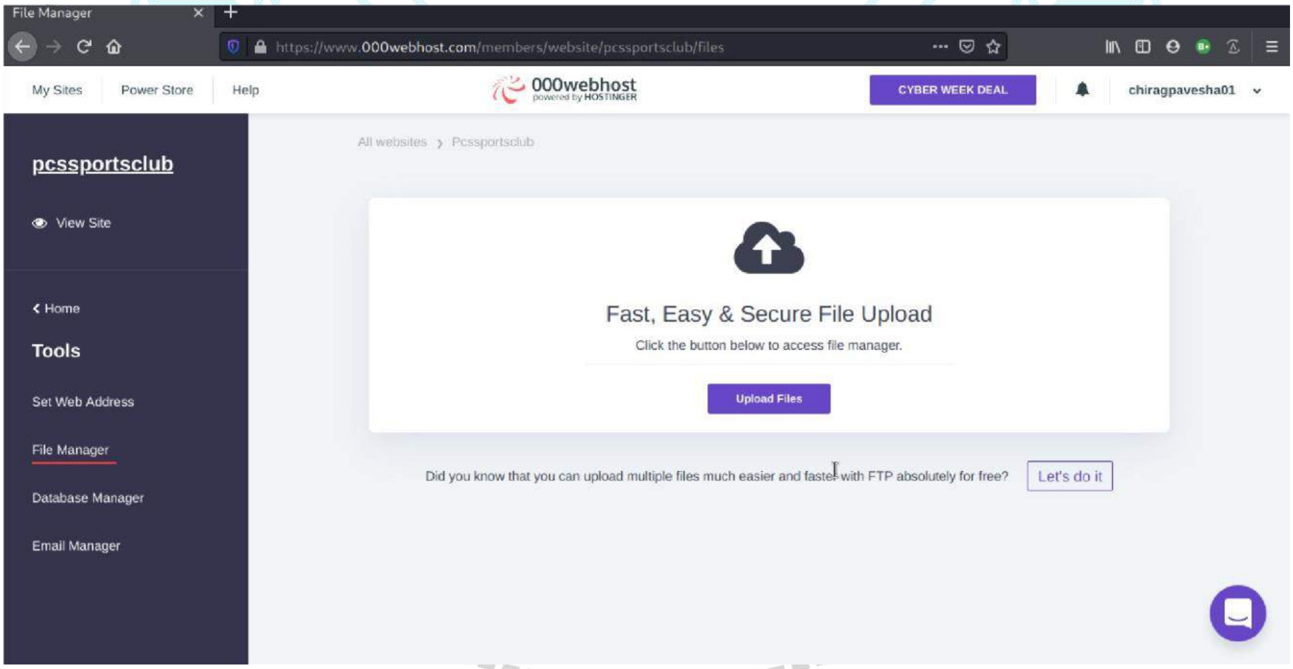
My Websites

Select a website to manage, or create a new one from scratch.

pcssportsclub

Status: running

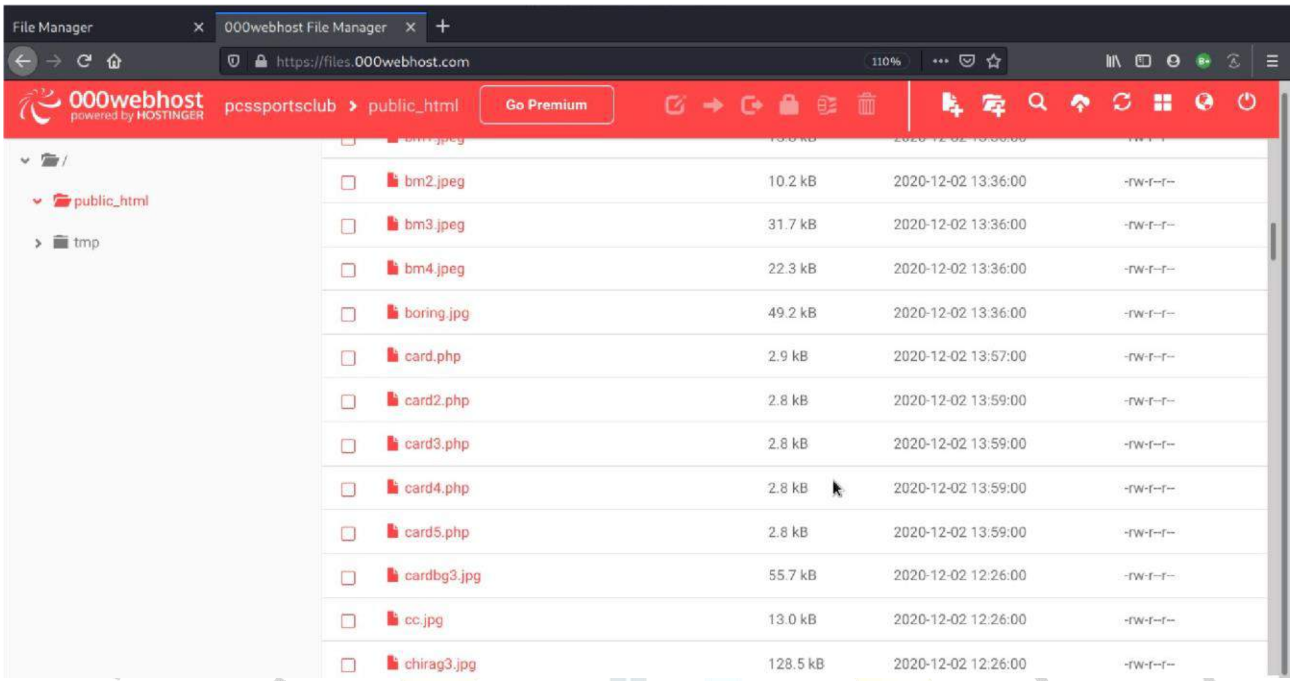
https://pcssportsclub.000webhostapp....



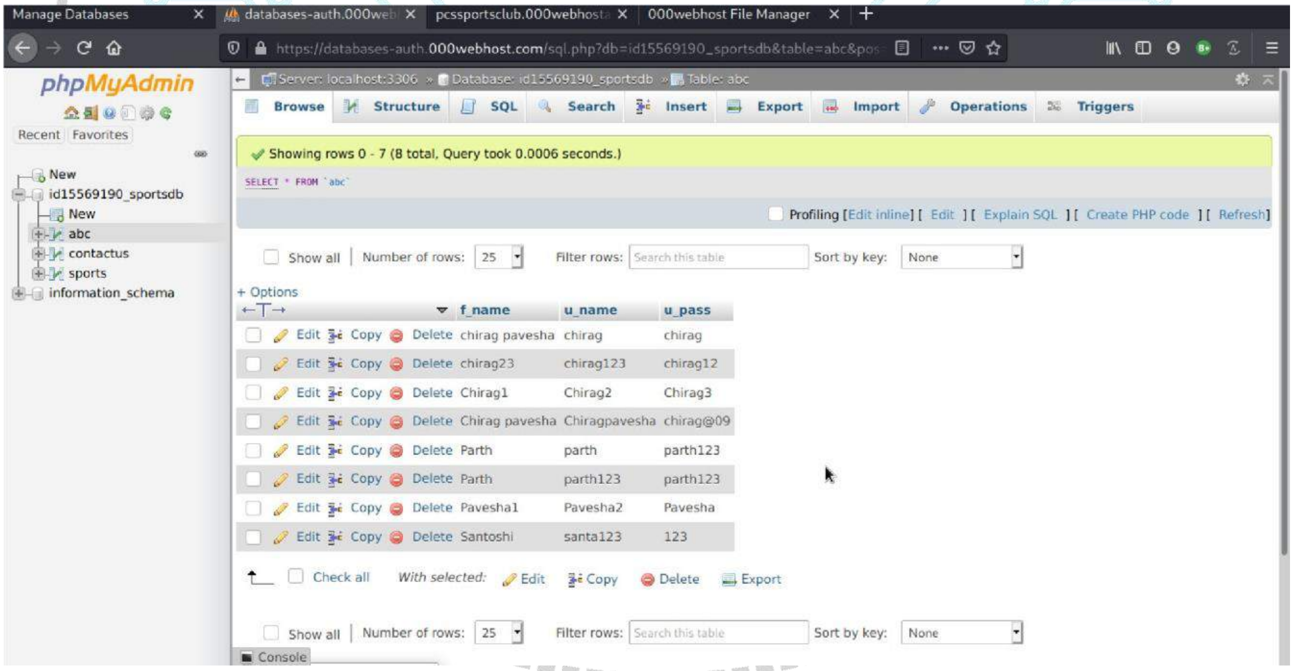
Fast, Easy & Secure File Upload

Click the button below to access file manager.

Did you know that you can upload multiple files much easier and faster with FTP absolutely for free?



	Name	Size	Date	Permissions
□	bm2.jpeg	10.2 kB	2020-12-02 13:36:00	-rw-r--r--
□	bm3.jpeg	31.7 kB	2020-12-02 13:36:00	-rw-r--r--
□	bm4.jpeg	22.3 kB	2020-12-02 13:36:00	-rw-r--r--
□	boring.jpg	49.2 kB	2020-12-02 13:36:00	-rw-r--r--
□	card.php	2.9 kB	2020-12-02 13:57:00	-rw-r--r--
□	card2.php	2.8 kB	2020-12-02 13:59:00	-rw-r--r--
□	card3.php	2.8 kB	2020-12-02 13:59:00	-rw-r--r--
□	card4.php	2.8 kB	2020-12-02 13:59:00	-rw-r--r--
□	card5.php	2.8 kB	2020-12-02 13:59:00	-rw-r--r--
□	cardbg3.jpg	55.7 kB	2020-12-02 12:26:00	-rw-r--r--
□	cc.jpg	13.0 kB	2020-12-02 12:26:00	-rw-r--r--
□	chirag3.jpg	128.5 kB	2020-12-02 12:26:00	-rw-r--r--



✓ Showing rows 0 - 7 (8 total, Query took 0.0006 seconds.)

```
SELECT * FROM `abc`
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

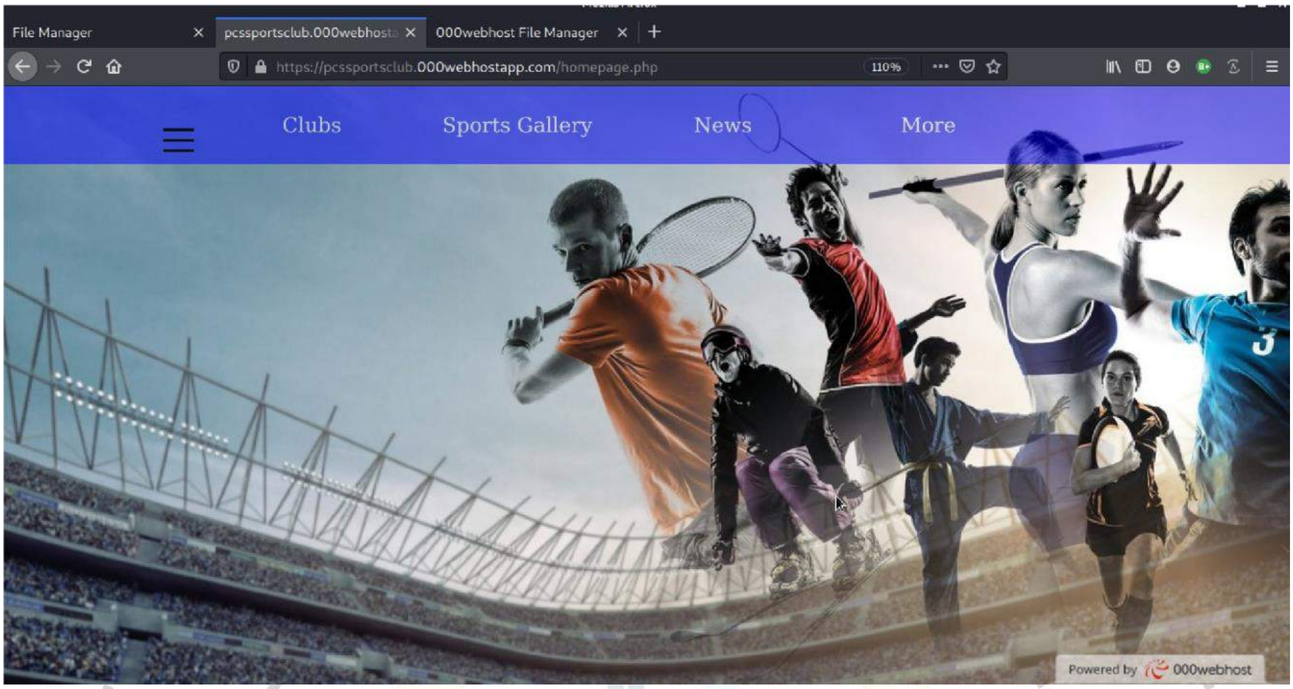
□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	f_name	u_name	u_pass
□ Edit Copy Delete	chirag pavesha	chirag	chirag
□ Edit Copy Delete	chirag23	chirag123	chirag12
□ Edit Copy Delete	Chirag1	Chirag2	Chirag3
□ Edit Copy Delete	Chirag pavesha	Chiragpavesha	chirag@09
□ Edit Copy Delete	Parth	parth	parth123
□ Edit Copy Delete	Parth	parth123	parth123
□ Edit Copy Delete	Pavesha1	Pavesha2	Pavesha
□ Edit Copy Delete	Santoshi	santa123	123

□ Check all With selected: Edit Copy Delete Export

□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None



The URL of our Hosted website is :

https://pcssportsclub.000webhostapp.com/

Conclusion : Hence, We have succefully hosted a Website on free Domain.

Ms. Shraddha More

Subject In-charge

SPORTS CLUB WEBSITE

TE mini-project

By

Santoshi Surendra Sabat	EU1184002
Chirag Lalit Pavesha	EU1184005
Parth Pradeep Patel	EU1184017

Under the guidance of

Ms. Shraddha More

Department of Information Technology

St. John College of Engineering and Management

University of Mumbai

CERTIFICATE

This is to certify that the project entitled **"Sports Club Website"** is a Project report of

"Santoshi Surendra Sabat" (EU1184002)

"Chirag Lalit Pavesha" (EU1184005)

"Parth Pradeep Patel" (EU1184017)

Submitted during the academic year 2020-21.

Subject In-charge ____________________

(Ms. Shraddha More)

Head of Department ____________________

(Mrs. Anita Chaudhari)

External Examiner ____________________

DECLARATION

We declare that this written submission represents our ideas in our own words and others ideas or words have not been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Santoshi Sabat _______________

Chirag Pavesha _______________

Parth Patel _______________

ACKNOWLEDGEMENT

Today, we cannot find appropriate words that will express deep sense of gratitude and satisfaction.

We are indebted to our inspiring **Ms. Shraddha More** (Subject In-charge) who has extended all valuable guidance, along with **Mrs. Anita Chaudhari** (HOD IT Dept.) in helping and giving constant encouragement through various difficult stages for development of the project.

We express our sincere gratitude to our respected principal **Dr. G. V. Mulgund** for encouragement and facilities provided to us.

We would also like to acknowledge the patience that our ever-beloved parents have shown during our efforts and the encouragement we have received from them. Thus, we have fully obliged and convey our thanks to the teaching and as well as non-teaching staff of the department. Special thanks to all the lab assistants for helping us with problems developed in the lab and assisting, helping us to solve any problems generated on the spot. Last but not the least we would like to thank all direct and indirect identities of the college with whom we took the strides for this successful project.

ABSTRACT

Sports club website provides and manages various club activities such as member registration, registration for various regular and activities, favourite sports and also provides information related to sports. The user has to first signup or login before entering the home page. User has to fill in basic information to register. Once a user is registered, he/she can login into the website. After logging in the user can register for the event and get the membership. And you can access our website. The registration and login details will be stored in the database. And we are describing about modules like sports calendar, Training and workshop for those who are interested in participation of sports, and we are adding help. If the user wants to know about the sports events than he can view the calendar.

TABLE OF CONTENT

1. INTRODUCTION

1.1 Overview

Sports play a great in everyone's busy life especially for students. Everyone should involve themselves in the sports activity even for a small time all through the day. PCS Sports Club provide information about different modules of sports. It allows you to participate in national sports events and allows you to join in training sessions in our state with coordinates with their direct interaction. It includes all information regarding most popular sports especially in India and top 4 games in the world. It includes sports calendar which includes all info regarding any sport through the world round the clock.

1.2 Problem Statement

The main purpose of our sports website is to give information about sports and want us more participation in sports events and league at national and international level's PCS Sports Club is where you can register yourself to get training from professional trainers and coaches. It provides information regarding most popular sports, events and leagues.

1.3 Technologies Used

1.3.1 HTML

- HTML stands for Hyper Text Mark-up Language and is the standard mark-up language for creating Web pages.
- HTML describes the structure of Web pages using mark-up.
- HTML elements are the building blocks of HTML pages.
- HTML elements are represented by tags.
- HTML tags label pieces of content such as "heading", "paragraph", "table", and so on.
- Browsers do not display the HTML tags but use them to render the content of the page.

1.3.2 CSS : Cascading Style Sheets

- CSS is a language that describes style of HTML document.
- It describes how HTML elements should be displayed. It can control the layout of multiple web pages all at once.
- Cascading style sheets can be classified into three sub components i.e. External CSS, Internal CSS and Inline CSS
- CSS saves a lot of work. It can control the layout of multiple web pages all at once.

1.3.3 JavaScript

- JavaScript (JS) is a lightweight, interpreted, or just-in-time compiled programming language with first-class functions.
- While it is most well-known as the scripting language for Web pages, many non-browser environments also use it, such as Node.js, Apache CouchDB and Adobe Acrobat.

- JavaScript is a prototype-based, multi-paradigm, single-threaded, dynamic language, supporting object-oriented, imperative, and declarative (e.g. functional programming) styles.
- Javascript helps you create really beautiful and crazy fast websites. You can develop your website with a console like look and feel and give your users the best Graphical User Experience.

1.3.4 PHP

- PHP is an acronym for "PHP: Hypertext Pre-processor"
- PHP is a server scripting language and power tool that is used to make dynamic and responsive web pages.
- PHP is widely used, free and efficient alternative to competitors such as Microsoft ASP.
- PHP scripts are executed on the server.

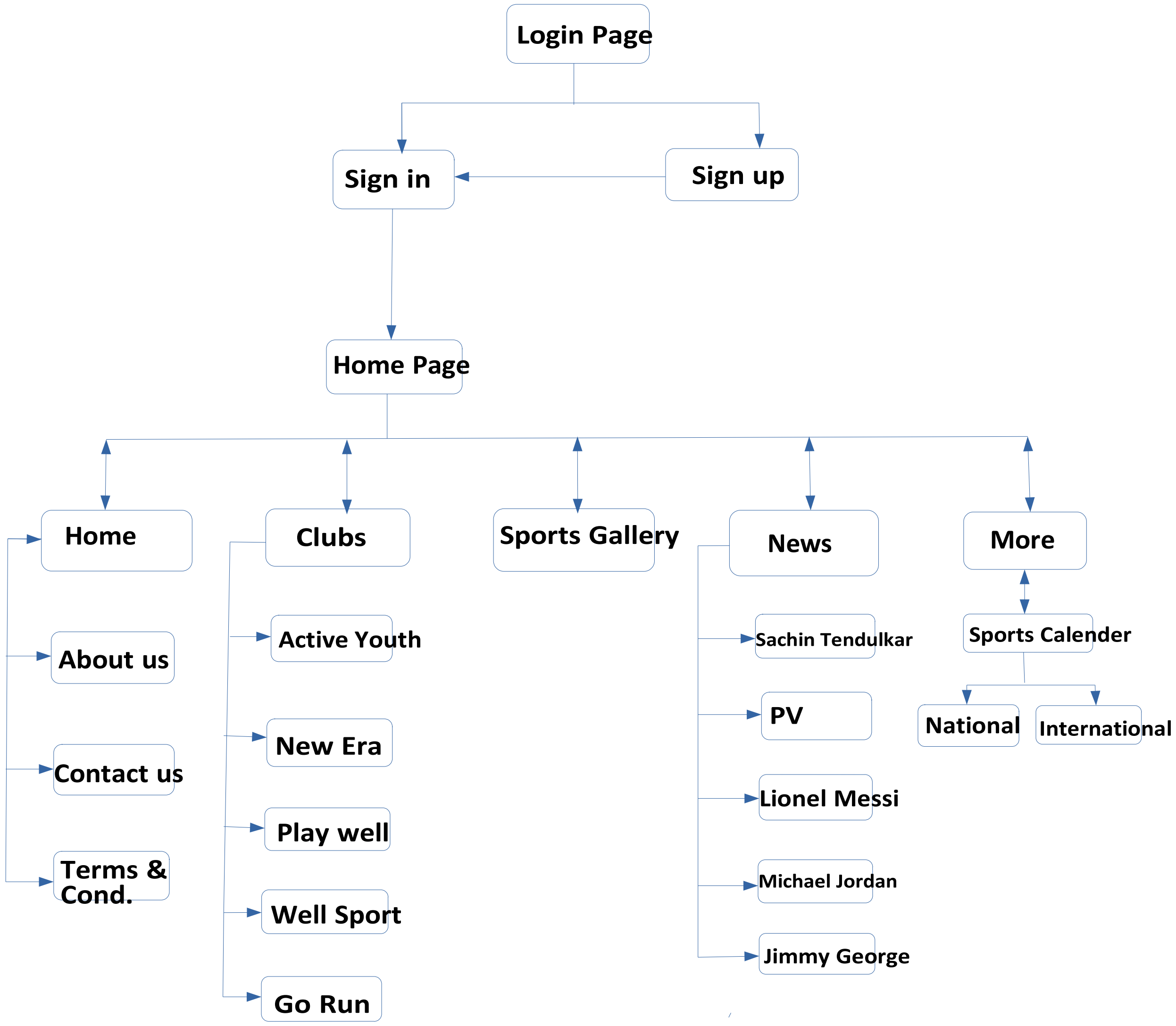
1.3.5 SQL

- SQL stands for Structured Query Language. It is a standard language for storing, manipulating and retrieving data in a database.
- A database most often contains one or more tables. Each table is identified by a name. Tables contain records (rows).
- The Select statement is used to select data from a database. The data returned is stored in a result table called as the result-set.
- The insert statement is used to enter values into your database.

2. SYSTEM DESIGN

2.1 Working

- When the user visits our URL it directly redirects to our first login page where the user has two options Sign in & Signup. After entering correct necessary details, user gets access to our website.
- Now, user has many options to surf our website.
- In club section, user can select his/her club & sports as per their convenience & get registered themselves in our PCS Sports club.
- In Sports Gallery, user can view different types of sports & games which our club supports & offers memberships.
- In news section, user can get information about latest news & legendary players details.
- We have added More Section, where user can get extra information related to sports or Calendar events taking place at different levels i.e National & International.
- About us, contact us, Privacy policies are also added in homepage of our website where can contact us & give feedback.



3. IMPLEMENTATION

3.1 HOMEPAGE

```
<?php
   require 'conn.php';
   session_start();
   if( !$_SESSION['u_name'])
   {
   header ('Location: index.php');
   }
?>
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="website.css">
<title>
</title>
<style>
body
{
background: url('page.jpg') no-repeat center fixed;
background-size: cover;
background-position: cover;
font-family:Verdana;
font-size:20px;
margin:0;
line-height:26px;
width:100%;
height:100%;
position:absolute;
}

.navbar{
text-align:center;
width:100%;
background:blue;
opacity:0.5;
}
.navbar ul{
margin:0;
padding:0;
list-style:none;
position:relative;
}
.navbar ul li a{
display:block;
padding:25px;
color:white;
text-decoration:none;
width:150px;
}
.navbar ul:after
{
content:"";clear:both;
display:block;
}
.navbar ul li{
float:left;
list-style:none;
}
.navbar ul ul{
display:none;
}
.navbar ul li:hover > ul{
display:block;
}
.navbar ul li:hover a{
background-color:black;
transition:0.9s;
}
.navbar ul li: hover a{
color:white;
}
.navbar ul ul{
background:black;
padding:0;
margin:0;
position:absolute;
top:100%;
}
.navbar ul ul li{
float:none;
position:relative;
}
.navbar ul ul li a{
padding:25px;
color:white;
width:300px;
text-align:left;
}
.navbar ul ul li a:hover {
background:pink;
color:black;
transition:0.9s;
}
```

```
#sidebar{
position:fixed;
width:150px;
height:400px;
background:#151719;
right:-200px;

opacity:0.8;
Color:black;
}
#sidebar.active{
right:0px;
}

#sidebar ul li a{
Color:rgba(230,230,230,0.9);
list-style:none;
padding:10px 10px;
border-bottom:1px solid rgba(100,100,100,0.3);
text-decoration:none;
}

#sidebar ul li:hover {
background:lightpink;
transition:0.9s;
}

#sidebar .toggle-btn{
position: absolute;
right:210px;
top:20px;
}

#sidebar .toggle-btn span{
display:block;
width:20px;
height:5px;
background:silver;
margin: 5px 0px;

.glowing {
position:absolute;
top:50%;
left:50%;
transform:translate(-50%,-50%);
}
.glowing  #glow span{
color:#fff;
font-family:verdana;
font-size:10px;
```

```
color:#fff;
display:inline-block;
animation:animate 2s linear infinite;
width:24px;
height:24px;
text-align:center;
line-height:24px;
border:1px solid rgba(255,255,255,.4);
margin:0 -2.5px;
}
@keyframes animate{
0%
{
color:#f00;
box-shadow:0 2px 10px rgba(255,0,0,1);
border:1px solid rgba(255,0,0,1);
}
33.3%
{
color:#ff0;
box-shadow:0 2px 10px rgba(255,255,0,1);
border:1px solid rgba(255,255,0,1);
}
66.6%
{
color:#0f0;
box-shadow:0 2px 10px rgba(0,255,0,1);
border:1px solid rgba(0,255,0,1);
}
100%
{
color:#f00;
box-shadow:0 2px 10px rgba(255,0,0,1);
border:1px solid rgba(255,0,0,1);
}
}
.glowing  span:nth-child(1)
{
animation-delay:0s;
}
.glowing span:nth-child(2)
{
animation-delay:0.1s;
}
.glowing span:nth-child(3)
{
animation-delay:0.2s;
}
.glowing span:nth-child(4)
{
```

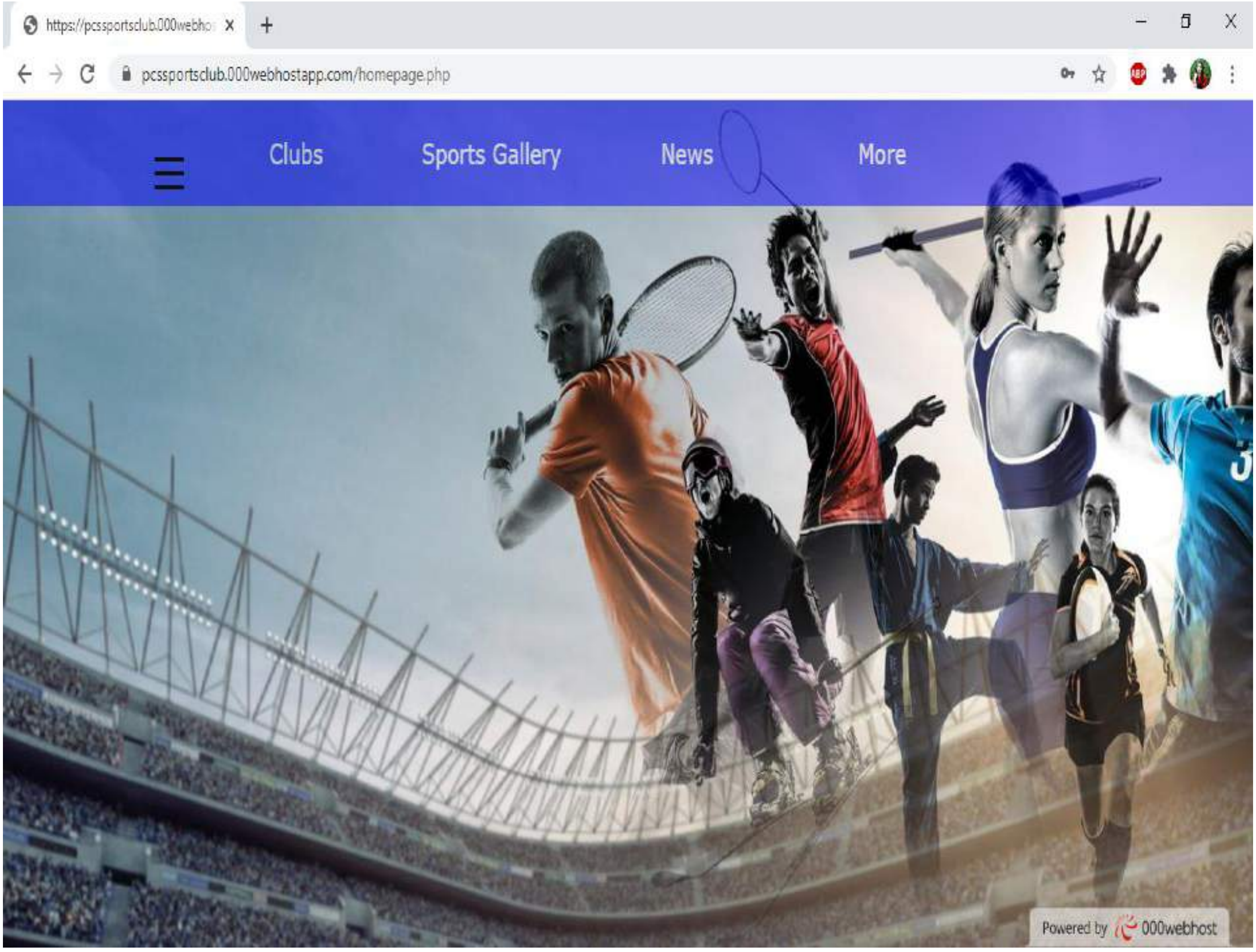
```
animation-delay:0.3s;
}
.glowing span:nth-child(5)
{
animation-delay:0.4s;
}
.glowing span:nth-child(6)
{
animation-delay:0.5s;
}
.glowing span:nth-child(7)
{
animation-delay:0.6s;
}

.glowing span:nth-child(8)
{
animation-delay:0.7s;
}
.glowing span:nth-child(9)
{
animation-delay:0.8s;
}

</style>
</head>
<body>
<header class="cd-header">
<div class="header-wrapper">
<div class="nav-but-wrap">
 <div class="menu-icon hover-target">
 <span class="menu-icon_line menu-icon_line-left">
 </span>
 <span class="menu-icon_line">
 </span>
 <span class="menu-icon_line menu-icon_line-right">
 </span>
 </div>
 </div>
 </div>
 </header>
 <div class="nav">
 <div class="nav_content">
 <ul class="nav_list">
 <li class="nav_list-item"><a href="homepage.php" class="hover-
target">Home</a></li>
 <li class="nav_list-item"><a href="aboutus.html" class="hover-target">About
us</a></li>
 <li class="nav_list-item"><a href="contact.html" class="hover-target">Contact
us</a></li>
```

```
   <li class="nav_list-item"><a href="termsandconditions.html" class="hover-target">Terms & Conditions</a></li>
   </il>
   </div>
   </div>
   <script type="text/javascript" src="website.js">
    </script>

<div class="navbar">
<ul>
<li><a href="#">          </a>
<li><a href="#">   Clubs </a>
<ul>
<li><a href="card.php">ACTIVE YOUTH</a></li>
<li><a href="card2.php">NEW ERA</a></li>
<li><a href="card3.php">PLAY WELL</a></li>
<li><a href="card4.php">WELL SPORT</a></li>
<li><a href="card5.php">GO RUN</a></li>
</ul>
</li>
<li><a href="pics.html">Sports Gallery</a></li>
<li><a href="#">News</a>
<ul><li><a href="sachin.html">Sachin Tendulkar</a></li>
<li><a href="pv.html">PV sindhu</a></li>
<li><a href="messi.html">Lionel Messi</a></li>
<li><a href="jordan.html">Michael Jordan</a></li>
<li><a href="jimmy.html">Jimmy george</a></li>
</ul>
</li>
</li>
<li><a href="#">More</a>
<ul>
<li><a href="myprj.html">SPORTS CALENDAR</a></li>
</ul>
</li>
</ul>
</div>
</body>
</html>
```


https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/homepage.php
☰
Clubs
Sports Gallery
News
More
Powered by 000webhost

HOME PAGE:

- Home page is the main page of our website. It consist of different modules like clubs, sports gallery,news,more. Information about the sport, history of sport. It provides information about the particular clubs. Users reviews on particular clubs. Registration for the particular club or how one can apply for the club. Current events going on in that particular sport. Information about the top most players, profile of top most players. And the users who have designed the website.

3.2 REGISTRATION PAGE

```
<?php
require 'conn.php';
   session_start();
?>
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
  <meta charset="utf-8">
   <link rel="stylesheet" href="styles.css">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body>
 <div class="wrapper">
<div class="title-text">
 <div class="title login">
Login Form</div>
<div class="title signup">
Signup Form</div>
</div>
<div class="form-container">
        <div class="slide-controls">
          <input type="radio" name="slide" id="login" checked>
        <input type="radio" name="slide" id="signup">
        <label for="login" class="slide login">Login</label>
        <label for="signup" class="slide signup">Signup</label>
        <div class="slider-tab">
</div>
</div>
<div class="form-inner">
 <form action="#" class="login" method="POST">
<div class="field">
<input type="text" placeholder="User Name" name="u_name" required>
</div>
<div class="field">
<input type="password" placeholder="Password" name="u_pass" required>
</div>
<div class="pass-link">
<a href="#">Forgot password?</a></div>
<div class="field btn">
<div class="btn-layer">
</div>
<input type="submit" value="Login" name="log">
</div>
<div class="signup-link">
Not a member? <a href="">Signup now</a></div>
</form>
```

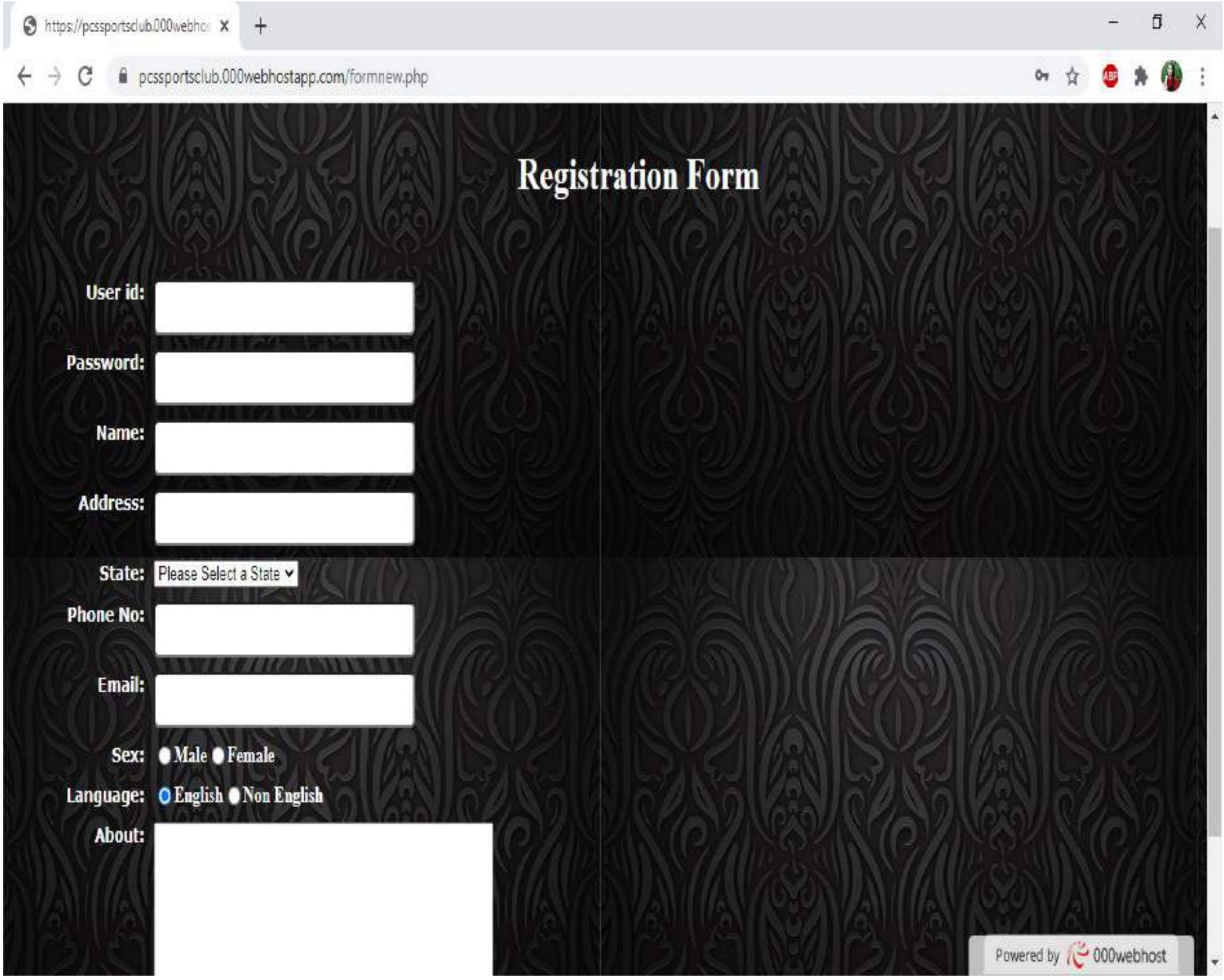
```
<form action="#" class="signup" method="POST">
<div class="field">
<input type="text" placeholder="Full Name" name="f_name"required>
</div>
 <div class="field">
<input type="text" placeholder="User Name" name="u_name"required>
</div>
<div class="field">
 <input type="password" placeholder="Password" name="u_pass"required>
</div>
<div class="field btn">
<div class="btn-layer">
</div>
<input type="submit" value="Signup" name="sb">
  </div>
</form>
</div>
</div>
</div>
<script>
      const loginText = document.querySelector(".title-text .login");
      const loginForm = document.querySelector("form.login");
      const loginBtn = document.querySelector("label.login");
      const signupBtn = document.querySelector("label.signup");
      const signupLink = document.querySelector("form .signup-link a");
      signupBtn.onclick = (()=>{
        loginForm.style.marginLeft = "-50%";
        loginText.style.marginLeft = "-50%";
      });
      loginBtn.onclick = (()=>{
        loginForm.style.marginLeft = "0%";
        loginText.style.marginLeft = "0%";
      });
      signupLink.onclick = (()=>{
        signupBtn.click();
        return false;
     });
    </script>
<?php
 if( isset($_POST['sb']) )
{
 $u_name = $_POST['u_name'];
$f_name = $_POST['f_name'];
$u_pass = $_POST['u_pass']
 $sql = "INSERT INTO abc (f_name, u_name, u_pass) VALUE ( '$f_name', '$u_name',
'$u_pass')";
if (mysqli_query($conn, $sql)){
    header('Location: homepage.php');
```

```
   }
else {
echo "Error;" . $sql . "<br>" . mysqli_error($conn);
}
 }
 else
 if(isset($_POST['log']) ){
  $u_name = $_POST['u_name'];
  $u_pass = $_POST['u_pass'];
  $sql = "SELECT * FROM abc WHERE u_name = '$u_name' ";
  $result = mysqli_query($conn, $sql)
    if (mysqli_num_rows($result) > 0)
{
    while($user = mysqli_fetch_assoc($result)){
   if( $u_name == $user['u_name'] && $u_pass == $user['u_pass'] )
{
   $_SESSION['u_name'] = $u_name;
 header('Location: homepage.php');
  }
Else
{
 echo "error";
 }}
}
```

```
}?>

</body>

</html>
```


https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/formnew.php
Powered by 000webhost

Registration Form

User id:

Password:

Name:

Address:

State: Please Select a State

Phone No:

Email:

Sex: ○ Male ○ Female

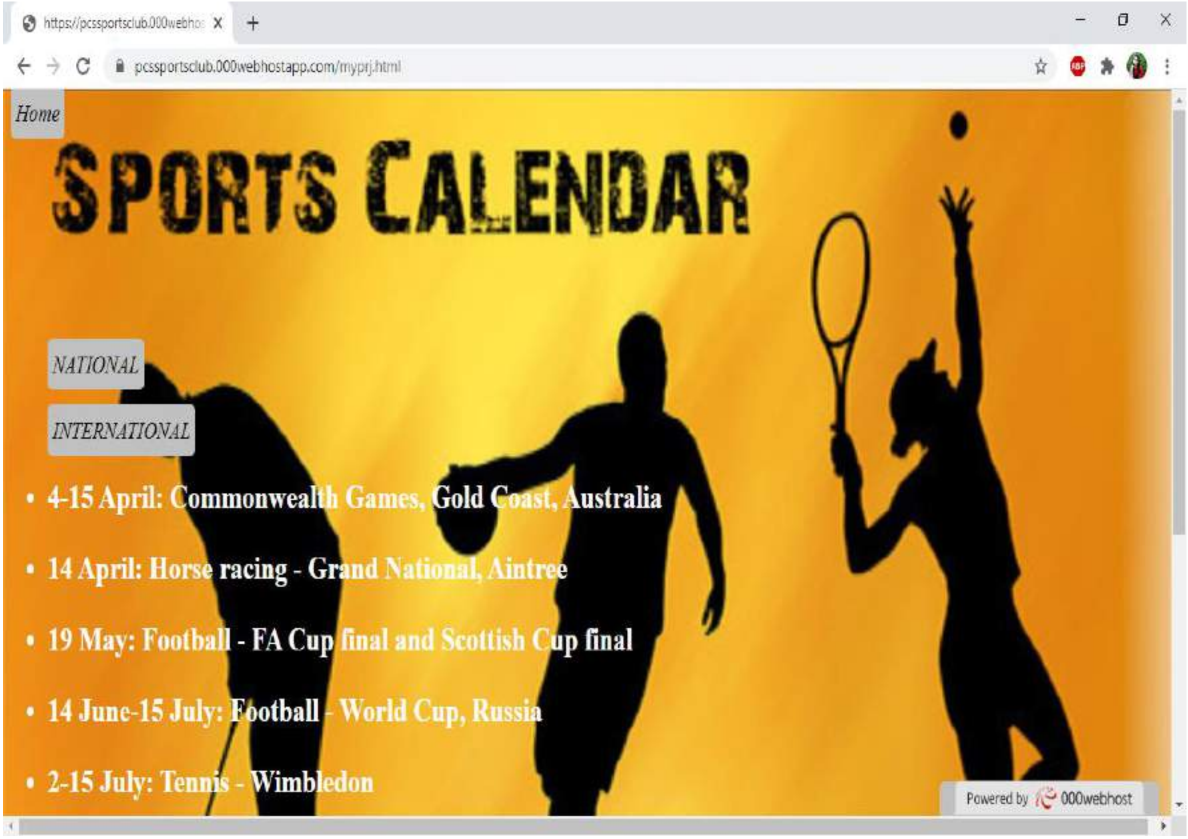
Language: ● English ○ Non English

About:

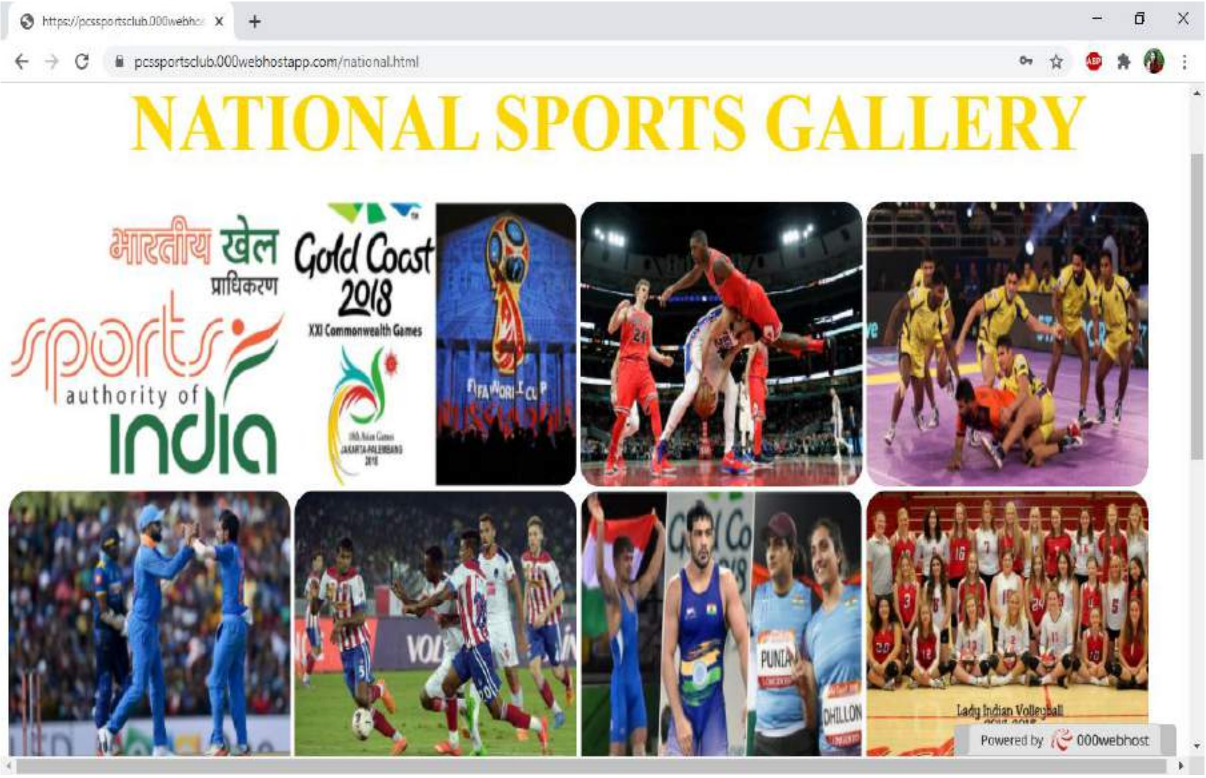
Registration Page:

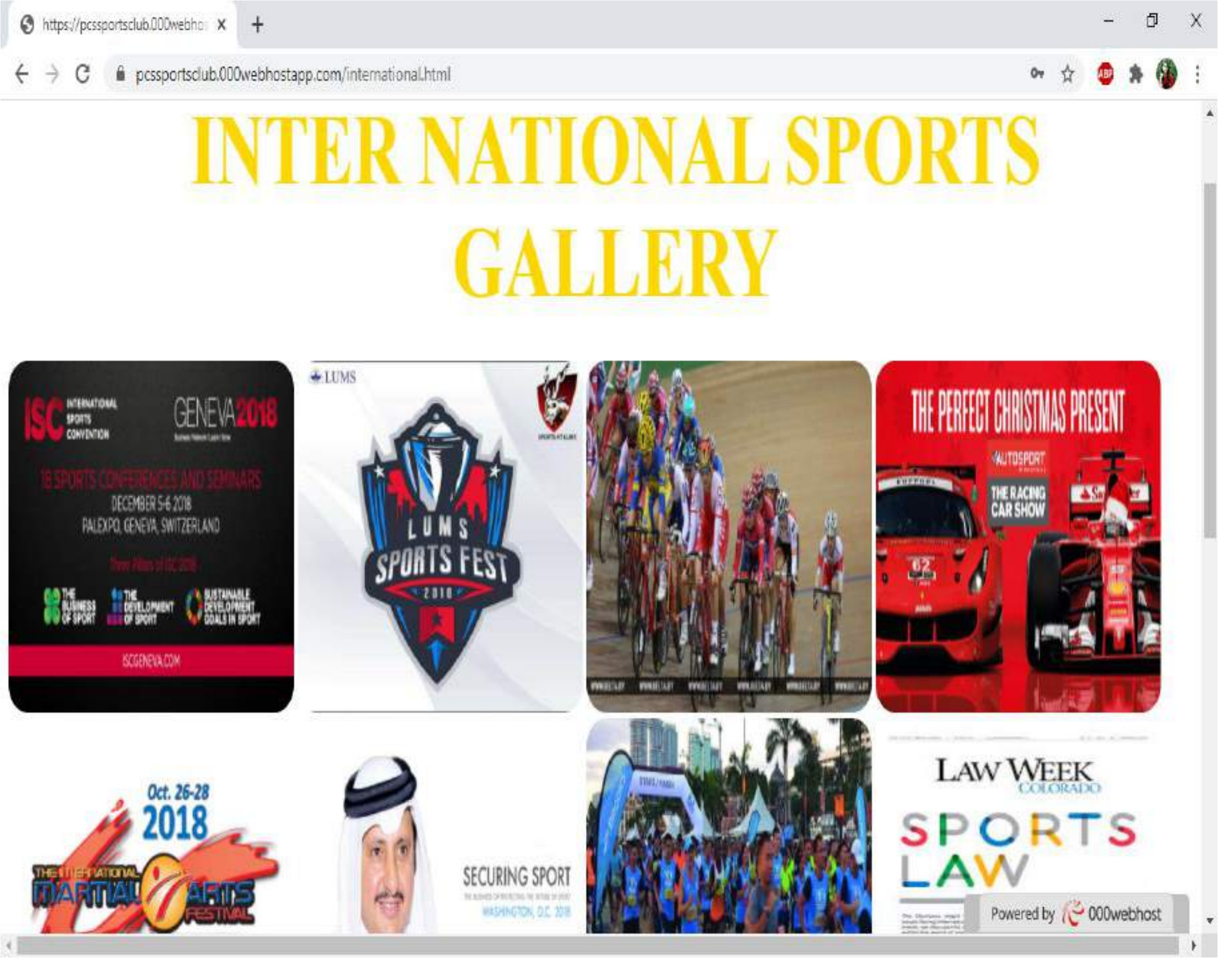
The page allows user to register themselves in favourite sports so as to access the page. The registration form consists of basic details that the user has to fill in order to explore the website. All these details are stored in the database.

3.3 Sports Calendar :


https://pcssportsclub.000webhos
pcssportsclub.000webhostapp.com/myprj.html
Home
SPORTS CALENDAR
NATIONAL
INTERNATIONAL
Powered by 000webhost

- 4-15 April: Commonwealth Games, Gold Coast, Australia
- 14 April: Horse racing - Grand National, Aintree
- 19 May: Football - FA Cup final and Scottish Cup final
- 14 June-15 July: Football - World Cup, Russia
- 2-15 July: Tennis - Wimbledon

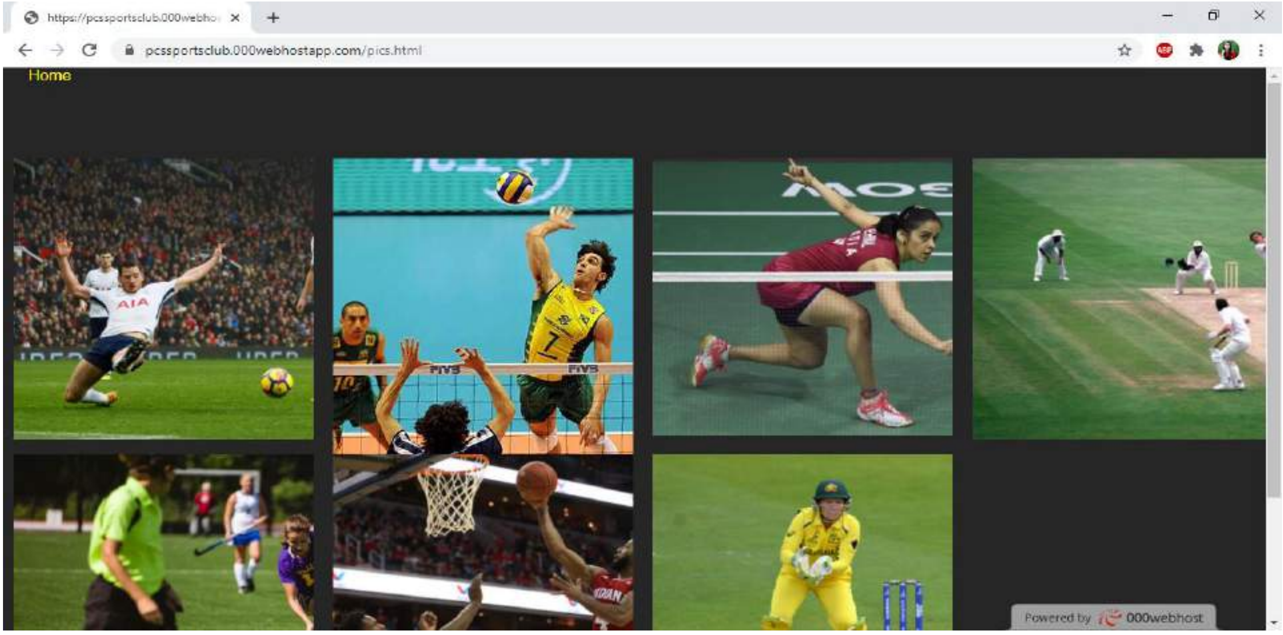


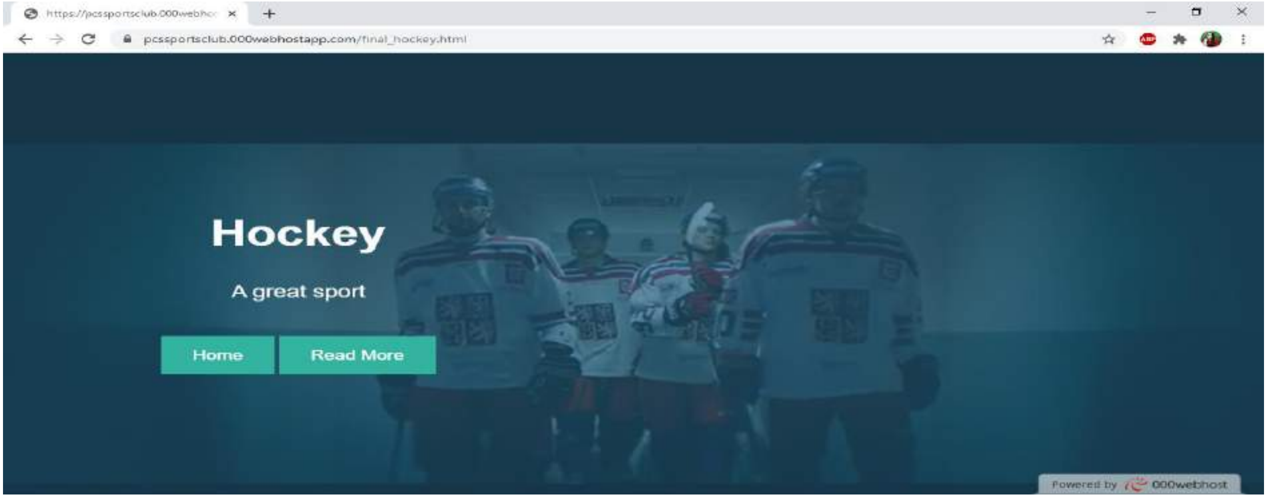

https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/international.html
INTER NATIONAL SPORTS GALLERY
ISC INTERNATIONAL SPORTS CONVENTION
GENEVA2018
DECEMBER 5-6 2018
PALEXPO, GENEVA, SWITZERLAND
ISCGENEVA.COM
LUMS
LUMS SPORTS FEST 2018
THE PERFECT CHRISTMAS PRESENT
AUTOSPORT
THE RACING CAR SHOW
Oct. 26-28 2018
THE INTERNATIONAL MARTIAL ARTS FESTIVAL
SECURING SPORT
WASHINGTON, D.C. 2018
LAW WEEK COLORADO
SPORTS LAW
Powered by 000webhost

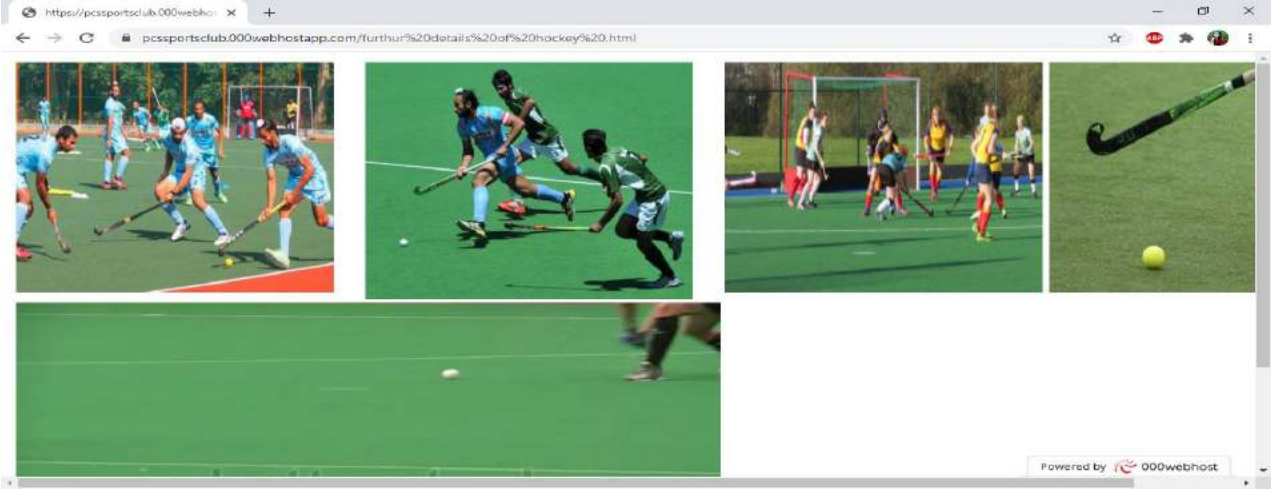
Sports Calendar:

It consists information about upcoming major events i.e. international n national events. Information regarding any sport through the world round the clock.

3.4 Sports Gallery

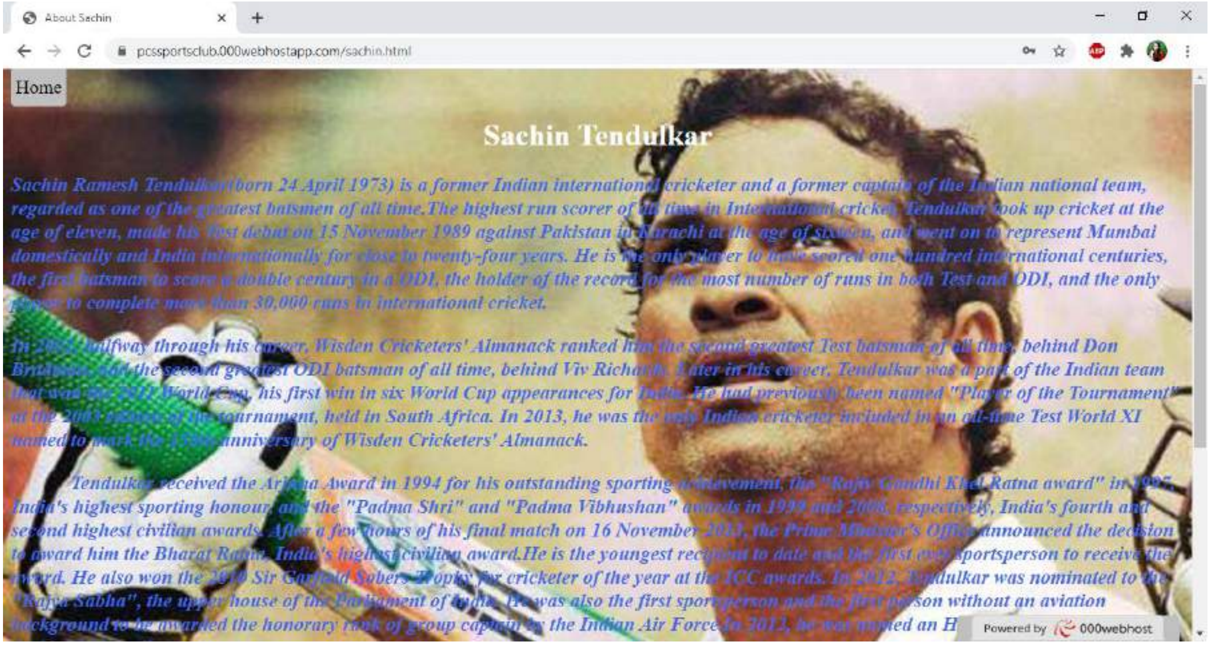

https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/pics.html
Home
Powered by 000webhost


https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/final_hockey.html
Hockey
A great sport
Home
Read More
Powered by 000webhost


https://pcssportsclub.000webho
pcssportsclub.000webhostapp.com/furthur%20details%20of%20hockey%20.html
Powered by 000webhost

The sports gallery consists of different types of sports and information related to it.

3.5 News



Sachin Tendulkar

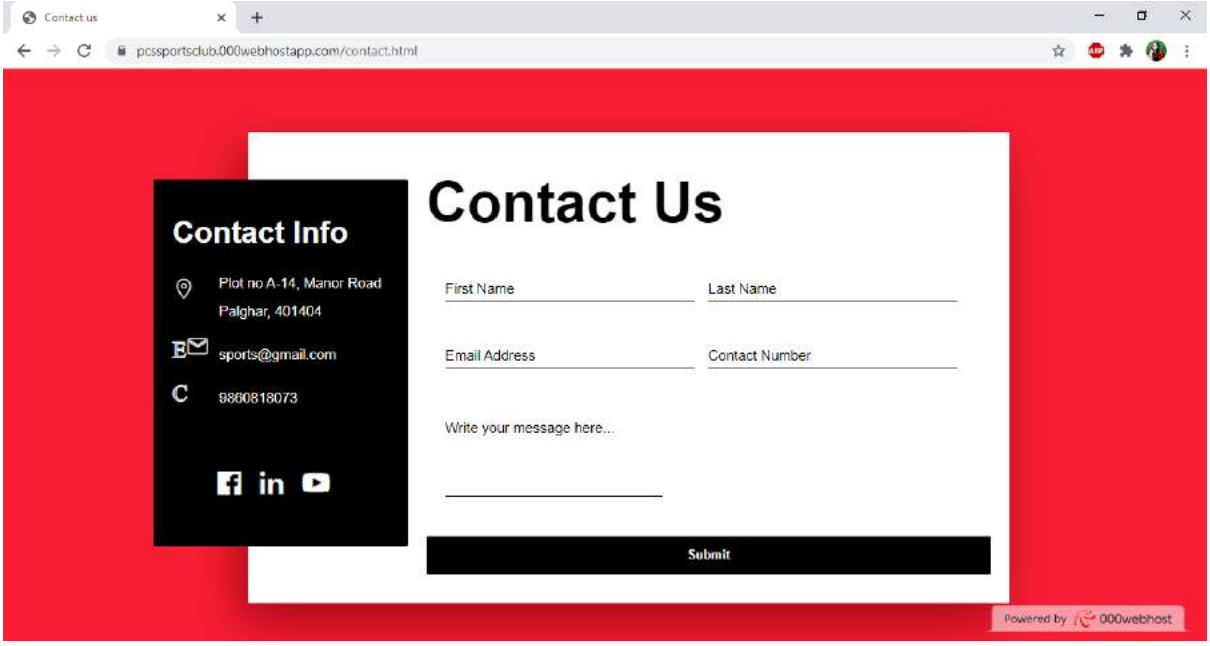
Sachin Ramesh Tendulkar(born 24 April 1973) is a former Indian international cricketer and a former captain of the Indian national team, regarded as one of the greatest batsmen of all time.The highest run scorer of all time in International cricket, Tendulkar took up cricket at the age of eleven, made his first debut on 15 November 1989 against Pakistan in Karachi at the age of sixteen, and went on to represent Mumbai domestically and India internationally for close to twenty-four years. He is the only player to have scored one hundred international centuries, the first batsman to score a double century in a ODI, the holder of the record for the most number of runs in both Test and ODI, and the only player to complete more than 30,000 runs in international cricket.

In 2002, halfway through his career, Wisden Cricketers' Almanack ranked him the second greatest Test batsman of all time, behind Don Bradman, and the second greatest ODI batsman of all time, behind Viv Richards. Later in his career, Tendulkar was a part of the Indian team that won the 2011 World Cup, his first win in six World Cup appearances for India. He had previously been named "Player of the Tournament" at the 2003 edition of the tournament, held in South Africa. In 2013, he was the only Indian cricketer included in an all-time Test World XI named to mark the 150th anniversary of Wisden Cricketers' Almanack.

Tendulkar received the Arjuna Award in 1994 for his outstanding sporting achievement, the "Rajiv Gandhi Khel Ratna award" in 1997, India's highest sporting honour, and the "Padma Shri" and "Padma Vibhushan" awards in 1999 and 2008, respectively, India's fourth and second highest civilian awards. After a few hours of his final match on 16 November 2013, the Prime Minister's Office announced the decision to award him the Bharat Ratna, India's highest civilian award.He is the youngest recipient to date and the first ever sportsperson to receive the award. He also won the 2010 Sir Garfield Sobers Trophy for cricketer of the year at the ICC awards. In 2012, Tendulkar was nominated to the "Rajya Sabha", the upper house of the Parliament of India. He was also the first sportsperson and the first person without an aviation background to be awarded the honorary rank of group captain by the Indian Air Force.In 2012, he was named an H

It contains news related to your favourite sports person.

3.6 Contact us :



Contact Info

Plot no A-14, Manor Road
Palghar, 401404

E✉ sports@gmail.com

C 9860818073

Contact Us

First Name

Last Name

Email Address

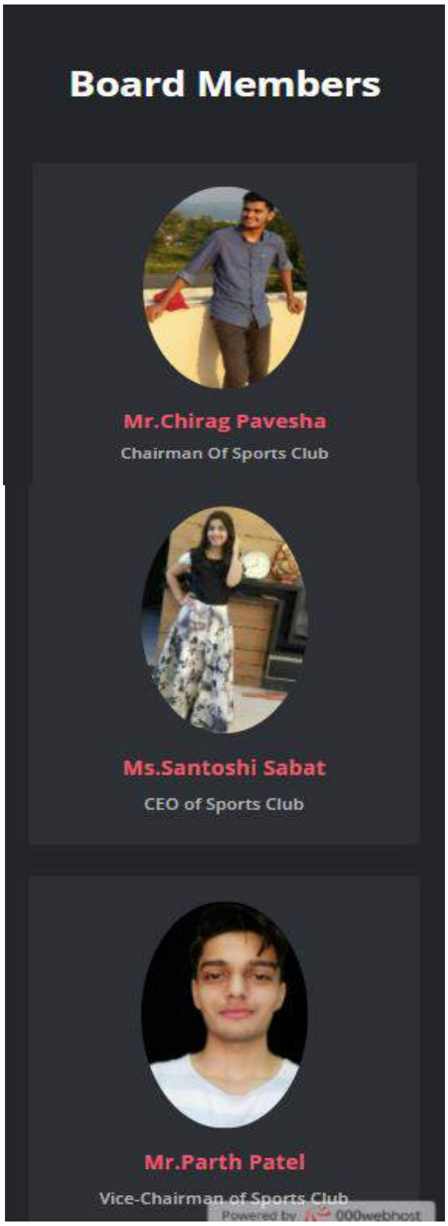
Contact Number

Write your message here...

Submit

A contact page is standard webpage on website used to allow the visitor to contact the website owner or peope who are responsible for maintaince of website.This page describe how they can help solve their visitors' problems. Using a contact form is even better since users will be able to get in touch from within your website.

3.5 Responsive Web Design:



Board Members

Mr.Chirag Pavesha

Chairman Of Sports Club

Ms.Santoshi Sabat

CEO of Sports Club

Mr.Parth Patel

Vice-Chairman of Sports Club

This is the view of our page in various sizes on the window. If the webpage is opened in a mobile phone or a tab the webpage gets adjusted to the size of the screen.

4. CONCLUSION

We successfully developed user friendly sports club Website which gives you all basic information about sports and you can register yourself in club which includes various types of sports and games. It also tells us various events and leagues taking place at national and international level.

The URL for our website is: https://pcssportsclub.000webhostapp.com/

This is all regarding our mini-project Sports Club website.

5. REFERENCE

https://www.w3schools.com/html/

https://www.youtube.com/c/CodeWithHarry

https://www.udemy.com/

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T

Div: A

Student Name:Santoshi Sabat **Roll No: 60**

Assignment No.: 01

Date of Performance: 18/09/2020 **Date of Submission: 30/09/2020**

Q.1] Difference between GET and POST method .

	GET	POST
Back Button/Reload	Harmless	Data will be re-submitted
bookmarked	Can be bookmarked	Cannot be bookmarked
Cached	Can be cached	Not cached
Encoding type	Application/x-www-form-url encoded	application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data.
History	Parameters remain in browser history	Parameters are not saved in browser history
Restrictions on data length	Yes, when sending data, the GET method adds the data to the URL; and the length of a URL is limited (maximum URL length is 2048 characters)	No restrictions
Restrictions on data type	Only ASCII characters allowed	No restrictions. Binary data is also allowed

Security	GET is less secure compared to POST because data sent is part of the URL Never use GET when sending passwords or other sensitive information!	POST is a little safer than GET because the parameters are not stored in browser history or in web server logs
Visibility	Data is visible to everyone in the URL	Data is not displayed in the URL

Q.2] What is CSS ? Explain the ways by which CSS is included in the web page.

CSS stands for Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once.

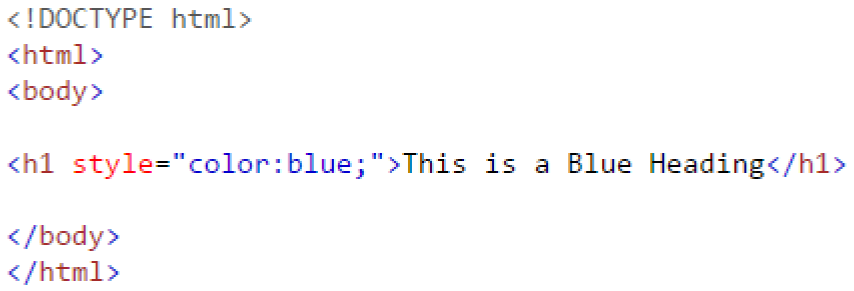
CSS can be added to HTML elements in 3 ways:

- Inline - by using the style attribute in HTML elements
- Internal - by using a <style> element in the <head> section
- External - by using an external CSS file

1. Inline CSS:

- An inline CSS is used to apply a unique style to a single HTML element.
- An inline CSS uses the style attribute of an HTML element.
- This example sets the text color of the

element to blue:



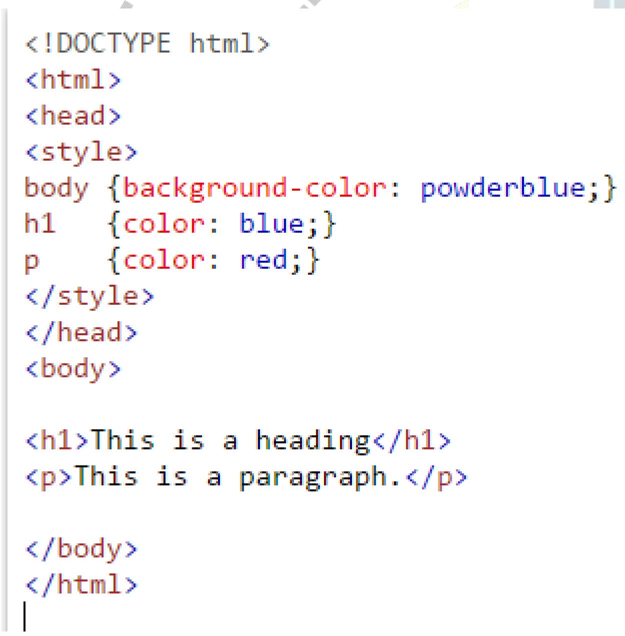
```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue;">This is a Blue Heading</h1>

</body>
</html>
```

2. Internal CSS:

- An internal CSS is used to define a style for a single HTML page.
- An internal CSS is defined in the <head> section of an HTML page, within a <style> element:



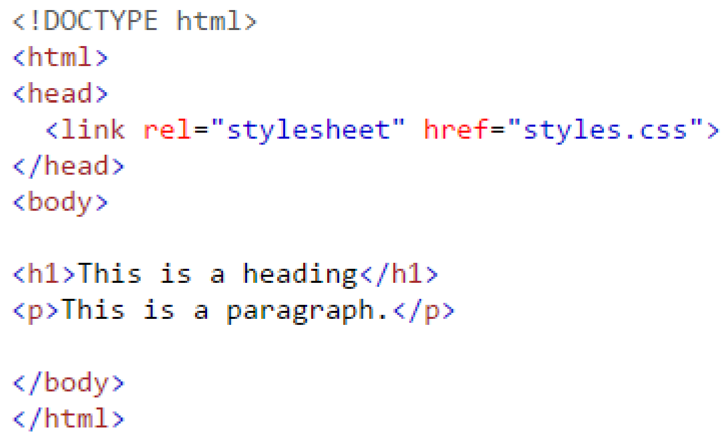
```
<!DOCTYPE html>
<html>
<head>
<style>
body {background-color: powderblue;}
h1   {color: blue;}
p    {color: red;}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

3. External CSS

- An external style sheet is used to define the style for many HTML pages.
- With an external style sheet, you can change the look of an entire web site, by changing one file!
- To use an external style sheet, add a link to it in the <head> section of the HTML page:



```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

Q.3] Explain media query with an example in HTML5 and CSS3.

Media Query

- The World Wide Web (W3C) introduced the media query as a part of the CSS 3 standard in June 2012.
- Media queries are used to define completely different styles for different browser sizes.
- Media Query is a CSS 3 module allowing different media types and features to adapt different styles for individual device viewport, device orientation, and many more.
- Media Query is a combination of media type and an expression that tells how a Web page would appear on a particular device.
- It consists of different media types such as: aural, braille, handheld, print, projection, screen, tv etc.
- Each media type is followed by different expressions that check conditions of particular media features such as: width, height, device-width, device-height, orientation, resolution, grid, color.
- It uses logical expression true or false. When the media features and values allocated is true then the given style is applied. The expression and value allocated is false, the style is ignored.

Initializing Media Queries:

- There are a couple of different ways to use media queries, such as:
  - @media rule inside of an existing style sheet. @media all and (max-width: 1024px) {...CSS Code}
  - Importing a new style sheet using the @import rule. @import url(styles.css) all and (max-width: 1024px) {...CSS Code}
  - By linking to a separate style sheet within the HTML document. <link href="styles.css" rel="stylesheet" media="all and (max-width: 1024px)">
- Generally speaking it is recommended using the @media rule inside of an existing style sheet to avoid any additional HTTP requests.

Logical Operators in Media Queries:

- Logical operators in media queries help to build powerful expressions.
- There are three different logical operators available for use within media queries, including and, not, and only.

Operator and

- Using the 'and' logical operator within a media query allows an extra condition to be added, making sure that a browser or devices does both a, b, c, and so forth.
- Multiple individual media queries can be comma separated, acting as an unspoken or operator.
- The example below selects all media types between 800 and 1024 pixels wide @media all and (min-width: 800px) and (max-width: 1024px) {...CSS Code}

Operator not

- The 'not' logical operator negates the query, specifying any query but the one identified.
- In the example below the expression applies to any device that does not have a color screen. Black and white or monochrome screens would apply here for example. @media not screen and (color) {...CSS Code}

Operator only

- The 'only' logical operator is a new operator and is not recognized by user agents using the HTML4 algorithm, thus hiding the styles from devices or browsers that don't support media queries.

- Below, the expression selects only screens in a portrait orientation that have a user agent capable of rending media queries. @media only screen and (orientation: portrait) {...CSS Code}

Media Features:

- Media features identify what attributes or properties will be targeted within the media query expression.
- Media features are used to set conditions in media queries.
- Some media features are height, width, device-width, device-height, orientation, aspect-ratio, device-aspect-ratio, color, color-index, monochrome, resolution, scan and grid.

Example of Media Query:

In following example when the browser window width matches the condition of the given media query then the associated CSS style is applied.

```
<!DOCTYPE html>
<html>
<head>
<title>Media Query Example</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
@media only screen and (min-width: 320px) and (max-width: 480px){
body{ background-color: yellow; }
}
@media only screen and (min-width: 481px) and (max-width: 1000px){
body{ background-color: violet; }
}
@media only screen and (min-width: 1001px) and (max-width: 1400px){
body{ background-color: lightblue; }
}
</style>
</head>
<body>
<center>
<h1 style="font-size:10vw">Example of Media Query</h1>
<h1>According to screen size background-color is displayed.<br>
If screen size changes background-color also changes</h1>
</center>
```

```
</body>

</html>
```

4. Explain geolocation API with example usage.

➔Geo-location:

Geolocation is a technology used to find out the exact location of user or user’s device in the world.

To do this it uses various things like IP address of computer, wireless network connection, cell tower of user’s phone and GPS to find out latitude or longitude information from satellites.

Geolocation is also very useful for location-specific information, like:

Up-to-date local information

Showing Points-of-interest near the user

Turn-by-turn navigation (GPS)

The HTML Geolocation API is used to get the geographical position of a user. Since this can compromise privacy, the position is not available unless the user approves it.

NavigatorGeolocation Interface provides an object of the ***Geolocation Interface*** which is used to include Geolocation API in a Web page.

The Geolocation Interface provides the ***getCurrentPosition()*** method to get the current location of user’s device.

Example

```
<!DOCTYPE html>
<html>
<style>
button{font:1em Arial; background:#fa4b2a; color:#fff;}
p{font:1em Verdana; color:#fa4b2a;}
</style>
<body>
<p id="output"></p>
<button onclick="getCoordinates()">
Click here to find your current location
</button>
<script>
var geo=document.getElementById("output");
function getCoordinates()
{
if (navigator.geolocation)
{
navigator.geolocation.getCurrentPosition(currentPosition);
}
else{geo.innerHTML="Please upgrade your browser.";}
}
function currentPosition(pos)
{
geo.innerHTML="(Latitude , Longitude)" + "<br>" + "(" + pos.coords.latitude + " ,
"
 + pos.coords.longitude + ")"; }
</script>
</body>
</html>
```

5. What are characteristics of Rich Internet Application.

Rich Internet Applications (RIA)

RIAs are web applications that have most of the characteristics of desktop applications, typically delivered through web-browser plug-ins or independently via sandboxes or virtual machines.

RIAs have always been about the user experience, it enhancing the end-user experience in different ways.

RIAs can run faster and be more engaging. They can offer users a better visual experience, better accessibility, usability and more interactivity than traditional browser applications that use only HTML and HTTP.

A RIA can perform computation on both the client side and server side. User Interface, its related activity and capability on the client side and the data manipulation and operation on the application server side.

RIA is developed using various technologies such as Java, Silverlight, JavaFX, JavaScript, REST/WS etc.

Characteristics of RIA

Performance - RIAs can often perform better than traditional applications on the basis of the characteristics of network and applications, performance of server also improved by offloading possible processing work to the client system and also perceived performance in terms of UI responsiveness and smoother visual transitions and animations are key aspects of any RIA.

Offline use - When connectivity is unavailable, it might still be possible to use an RIA. An RIA platform let the user work with the application without connecting to the Internet and synchronizing it automatically when the user goes live.

Consistency of look and feel - With RIA tools, the user interface and experience with different browsers, devices and operating systems can be more carefully controlled and made consistent.

Security - RIAs should be as secure as any other web application, and the framework should be well equipped to enforce limitations appropriately when the user lacks the required privileges, especially when running within a constrained environment such as a sandbox.

Advanced Communications - Sophisticated communications with supporting servers through optimized network protocols can considerably enhance the user experience.

Rapid Development - An RIA Framework should facilitate rapid development of a rich user experience through its easy-to-use interfaces in ways that help developers.

Direct Interaction - An RIA can use a wider range of controls that allow greater efficiency and enhance the user experience. In RIAs, for example, users can interact directly with page elements through editing or drag-and-drop tools. They can also do things like pan across a map or other image.

Better Feedback - Because of their ability to change parts of pages without reloading, RIAs can provide the user with fast and accurate feedback, real-time confirmation of actions and choices, and informative and detailed error messages.

Improved Features - RIA allow programmers to embed various functionalities in graphics-based web pages that look fascinating and engaging like desktop applications. RIA provide complex application screens on which various mixed media, including different fonts, vector graphic and bitmap files online conferencing etc. are paused by using different modern development tools.

Partial-page updating - RIAs incorporate additional technologies, such as real-time streaming, high-performance client-side virtual machines, and local caching mechanisms that reduce latency (wait times) and increase responsiveness.

6. What is AJAX? Explain steps required to process ajax with an example.

AJAX stands for **A**synchronous **Ja**vaScript and **X**ML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script.

Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.

Conventional web applications transmit information to and from the sever using synchronous requests. It means you fill out a form, hit submit, and get directed to a new page with new information from the server.

With AJAX, when you hit submit, JavaScript will make a request to the server, interpret the results, and update the current screen. In the purest sense, the user would never know that anything was even transmitted to the server.

XML is commonly used as the format for receiving server data, although any format, including plain text, can be used.

AJAX is a web browser technology independent of web server software.

A user can continue to use the application while the client program requests information from the server in the background.

Intuitive and natural user interaction. Clicking is not required, mouse movement is a sufficient event trigger.

Data-driven as opposed to page-driven.

Steps of AJAX Operation

A client event occurs.

An XMLHttpRequest object is created.

The XMLHttpRequest object is configured.

The XMLHttpRequest object makes an asynchronous request to the Webserver.

The Webserver returns the result containing XML document.

The XMLHttpRequest object calls the callback() function and processes the result.

The HTML DOM is updated.

1.A Client Event Occurs

A JavaScript function is called as the result of an event.

Example − *validateUserId()* JavaScript function is mapped as an event handler to an *onkeyup* event on input form field whose id is set to *"userid"*

<input type = "text" size = "20" id = "userid" name = "id" onkeyup = "validateUserId();">.

2.The XMLHttpRequest Object is Created

```
var ajaxRequest;  // The variable that makes Ajax possible!
function ajaxFunction() {
   try {
      // Opera 8.0+, Firefox, Safari
      ajaxRequest = new XMLHttpRequest();
   } catch (e) {

      // Internet Explorer Browsers
      try {
         ajaxRequest = new ActiveXObject("Msxml2.XMLHTTP");
      } catch (e) {

         try {
            ajaxRequest = new ActiveXObject("Microsoft.XMLHTTP");
         } catch (e) {

            // Something went wrong
            alert("Your browser broke!");
            return false;
            }
        }
    }
}
```

3.The XMLHttpRequest Object is Configured

In this step, we will write a function that will be triggered by the client event and a callback function processRequest() will be registered.

```
function validateUserId() {
   ajaxFunction();

   // Here processRequest() is the callback function.
   ajaxRequest.onreadystatechange = processRequest;

   if (!target) target = document.getElementById("userid");
   var url = "validate?id=" + escape(target.value);

   ajaxRequest.open("GET", url, true);
   ajaxRequest.send(null);
}
```

4.Making Asynchronous Request to the Webserver

Source code is available in the above piece of code. Code written in bold typeface is responsible to make a request to the webserver. This is all being done using the XMLHttpRequest object *ajaxRequest*.

```
function validateUserId() {
   ajaxFunction();

   // Here processRequest() is the callback function.
   ajaxRequest.onreadystatechange = processRequest;

   if (!target) target = document.getElementById("userid");
   var url = "validate?id = " + escape(target.value);

   ajaxRequest.open("GET", url, true);
   ajaxRequest.send(null);
}
```

Assume you enter Zara in the userid box, then in the above request, the URL is set to "validate?id = Zara".

5.Webserver Returns the Result Containing XML Document

You can implement your server-side script in any language, however its logic should be as follows.

Get a request from the client.

Parse the input from the client.

Do required processing.

Send the output to the client.

If we assume that you are going to write a servlet, then here is the piece of code.

```
public void doGet(HttpServletRequest request,
   HttpServletResponse response) throws IOException, ServletException {
   String targetId = request.getParameter("id");

   if ((targetId != null) && !accounts.containsKey(targetId.trim())) {
      response.setContentType("text/xml");
      response.setHeader("Cache-Control", "no-cache");
      response.getWriter().write("<valid>true</valid>");
   } else {
      response.setContentType("text/xml");
      response.setHeader("Cache-Control", "no-cache");
      response.getWriter().write("<valid>false</valid>");
   }
}
```

6.Callback Function processRequest() is Called

The XMLHttpRequest object was configured to call the processRequest() function when there is a state change to the *readyState* of the *XMLHttpRequest* object. Now this function will receive the result from the server and will do the required processing. As in the following example, it sets a variable message on true or false based on the returned value from the Webserver.

```

function processRequest() {
   if (req.readyState == 4) {
      if (req.status == 200) {
         var message = ...;
...
}
```

7.The HTML DOM is Updated

This is the final step and in this step, your HTML page will be updated. It happens in the following way −

JavaScript gets a reference to any element in a page using DOM API.

The recommended way to gain a reference to an element is to call.

```
document.getElementById("userIdMessage"),
// where "userIdMessage" is the ID attribute
// of an element appearing in the HTML document
```

JavaScript may now be used to modify the element's attributes; modify the element's style properties; or add, remove, or modify the child elements. Here is an example −

```
<script type = "text/javascript">
   <!--
   function setMessageUsingDOM(message) {
      var userMessageElement = document.getElementById("userIdMessage");
      var messageText;

      if (message == "false") {
         userMessageElement.style.color = "red";
         messageText = "Invalid User Id";
      } else {
         userMessageElement.style.color = "green";
         messageText = "Valid User Id";
      }

      var messageBody = document.createTextNode(messageText);

      // if the messageBody element has been created simple
      // replace it otherwise append the new element
      if (userMessageElement.childNodes[0]) {
         userMessageElement.replaceChild(messageBody,
userMessageElement.childNodes[0]);
      } else {
         userMessageElement.appendChild(messageBody);
      }
   }
   -->
</script>

<body>
   <div id = "userIdMessage"><div>
</body>
```

Ms Shraddha More
Subject In-charge

Aldel Education Trust's

St. John College of Engineering and Management, Palghar

NAAC Accredited with Grade A

Department of Information Technology

A.Y. 2020-2021

Subject: Internet Programming

Class: T.E-I.T **Div: A**

Student Name: Santoshi Sabat **Roll No: 60**

Assignment No.: 2

Date of Performance: 23/10/2020 **Date of Submission: 8/11/2020**

1) Explain string function in PHP.

Ans.

Function	Description	Example	Output
strtolower	Used to convert all string characters to lower case letters	echo strtolower('Benjamin');	outputs benjamin
strtoupper	Used to convert all string characters to upper case letters	echo strtoupper('george w bush');	outputs GEORGE W BUSH
strlen	The string length function is used to count the number of character in a string. Spaces in between characters are also counted	echo strlen('united states of america');	24
explode	Used to convert strings into an array variable	$settings = explode(';', "host=localhost; db=sales; uid=root; pwd=demo"); print_r($settings);	Array ([0] => host=localhost [1] => db=sales [2] => uid=root [3] => pwd=demo)
substr	Used to return part of the string. It accepts three (3) basic parameters. The first one is the string to be shortened, the second parameter is the position of the starting point, and the third parameter is the number of characters to be returned.	$my_var = 'This is a really long sentence that I wish to cut short';echo substr($my_var,0, 12).'...';	This is a re...
str_replace	Used to locate and replace specified string values in a given string. The function accepts three arguments. The first argument is the text to be replaced, the second argument is the replacement text and the third argument is the text that is analyzed.	echo str_replace ('the', 'that', 'the laptop is very expensive');	that laptop is very expensive
strpos	Used to locate the and return the position of a character(s) within a	echo strpos('PHP Programing','Pro');	4

Function	Description	Example	Output
	string. This function accepts two arguments		
sha1	Used to calculate the SHA-1 hash of a string value	echo sha1('password');	5baa61e4c 9b93f3f0 682250b6cf8331b 7ee68fd8
md5	Used to calculate the md5 hash of a string value	echo md5('password');	9f961034ee 4de758 baf4de09ceeb1a75
str_word_count	Used to count the number of words in a string.	echo str_word_count ('This is a really long sentence that I wish to cut short');	12
ucfirst	Make the first character of a string value upper case	echo ucfirst('respect');	Outputs Respect
lcfirst	Make the first character of a string value lower case	echo lcfirst('RESPECT');	Outputs rESPECT

2) Explain how session management is done in PHP? Clearly explain how to create, access and modify session variables in PHP.

Ans. What is a Session

Although you can store data using cookies but it has some security issues. Since cookies are stored on user's computer it is possible for an attacker to easily modify a cookie content to insert potentially harmful data in your application that might break your application.

Also every time the browser requests a URL to the server, all the cookie data for a website is automatically sent to the server within the request. It means if you have stored 5 cookies on user's system, each having 4KB in size, the browser needs to upload 20KB of data each time the user views a page, which can affect your site's performance.

You can solve both of these issues by using the PHP session. A PHP session stores data on the server rather than user's computer. In a session based environment, every user is identified through a unique number called session identifier or SID. This unique session ID is used to link each user with their own information on the server like emails, posts, etc.

Starting a PHP Session

Before you can store any information in session variables, you must first start up the session. To begin a new session, simply call the PHP session_start() function. It will create a new session and generate a unique session ID for the user.

The PHP code in the example below simply starts a new session.

Example

```php
<?php
// Starting session
session_start();
?>
```

The `session_start()` function first checks to see if a session already exists by looking for the presence of a session ID. If it finds one, i.e. if the session is already started, it sets up the session variables and if doesn't, it starts a new session by creating a new session ID.

Storing and Accessing Session Data

You can store all your session data as key-value pairs in the `$_SESSION[]` superglobal array. The stored data can be accessed during lifetime of a session. Consider the following script, which creates a new session and registers two session variables.

Example

```php
<?php
// Starting session
session_start();

// Storing session data
$_SESSION["firstname"] = "Peter";
$_SESSION["lastname"] = "Parker";
?>
```

To access the session data we set on our previous example from any other page on the same web domain — simply recreate the session by calling `session_start()` and then pass the corresponding key to the `$_SESSION` associative array.

Example

```php
<?php
// Starting session
session_start();

// Accessing session data
echo 'Hi, ' . $_SESSION["firstname"] . ' ' .
$_SESSION["lastname"];
?>
```

The PHP code in the example above produce the following output.

Hi, Peter Parker.

Destroying a Session

If you want to remove certain session data, simply unset the corresponding key of the `$_SESSION` associative array, as shown in the following example:

Example

```
<?php
// Starting session
session_start();

// Removing session data
if(isset($_SESSION["lastname"])){
    unset($_SESSION["lastname"]);
}
?>
```

However, to destroy a session completely, simply call the `session_destroy()` function. This function does not need any argument and a single call destroys all the session data.

Example

```
<?php
// Starting session
session_start();

// Destroying session
session_destroy();
?>
```

3) Differentiate between REST and SOAP.

Ans.

Sr. No.	Key	REST API	SOAP API
1	Implementation	Rest API is implemented as it has no official standard at all because it is an architectural style.	On other hand SOAP API has an official standard because it is a protocol.
2	Internal communication	REST APIs uses multiple standards like HTTP, JSON, URL, and XML for data communication and transfer.	SOAP APIs is largely based and uses only HTTP and XML.
3	Resource requirement	As REST API deploys and uses multiple standards as stated above, so it takes fewer resources and bandwidth as compared to SOAP API.	On other hand Soap API requires more resource and bandwidth as it needs to convert the data in XML which increases its payload

Sr. No.	Key	REST API	SOAP API
			and results in the large sized file.
4	Description	REST API uses Web Application Description Language for describing the functionalities being offered by web services.	On other hand SOAP API used Web Services Description language for the same.
5	Security	REST has SSL and HTTPS for security.	On other hand SOAP has SSL(Secure Socket Layer) and WS-security due to which in the cases like Bank Account Password, Card Number, etc. SOAP is preferred over REST.
6	Abbreviation	REST stands for Representational State Transfer.	On other hand SOAP stands for Simple Object Access Protocol
7	Interchange	REST can make use of SOAP as the underlying protocol for web services, because in the end it is just an architectural pattern.	On other hand SOAP cannot make use of REST since SOAP is a protocol and REST is an architectural pattern.

4) Explain UDDI.

Ans. UDDI is an XML-based standard for describing, publishing, and finding web services.

- UDDI stands for **Universal Description, Discovery, and Integration.**
- UDDI is a specification for a distributed registry of web services.
- UDDI is a platform-independent, open framework.
- UDDI can communicate via SOAP, CORBA, Java RMI Protocol.
- UDDI uses Web Service Definition Language(WSDL) to describe interfaces to web services.

- UDDI is seen with SOAP and WSDL as one of the three foundation standards of web services.
- UDDI is an open industry initiative, enabling businesses to discover each other and define how they interact over the Internet.

UDDI has two sections −

- A registry of all web service's metadata, including a pointer to the WSDL description of a service.
- A set of WSDL port type definitions for manipulating and searching that registry.

Partner Interface Processes

Partner Interface Processes (PIPs) are XML based interfaces that enable two trading partners to exchange data. Dozens of PIPs already exist. Some of them are listed here −

- **PIP2A2** − Enables a partner to query another for product information.
- **PIP3A2** − Enables a partner to query the price and availability of specific products.
- **PIP3A4** − Enables a partner to submit an electronic purchase order and receive acknowledgment of the order.
- **PIP3A3** − Enables a partner to transfer the contents of an electronic shopping cart.
- **PIP3B4** − Enables a partner to query the status of a specific shipment.

Private UDDI Registries

As an alternative to using the public federated network of UDDI registries available on the Internet, companies or industry groups may choose to implement their own private UDDI registries.

These exclusive services are designed for the sole purpose of allowing members of the company or of the industry group to share and advertise services amongst themselves.

Regardless of whether the UDDI registry is a part of the global federated network or a privately owned and operated registry, the one thing that ties them all together is a common web services API for publishing and locating businesses and services advertised within the UDDI registry.

5) Explain features and application of Django.
Ans. Top Features of Django Framework

1. Excellent Documentation

This is one of the main reasons to **start learning Django**. If we compare Django with other open source technologies, it offers the best documentation in the market.

Better documentation of any technology is like a very well-established library for any developer. There, he can search for any function desired with ease with the time involving in the searching purpose only.

The documentation of any technology is also one of the categories to grade a technology, as it lets other developers other than its own creators to efficiently utilize the technology.

Django has been best at documentation from the beginning, from the point it became open source in 2005 to the present date, and the documentation has only been getting better with active development of technology and it is also offered in different languages.

2. Python Web-framework

Python is also one of the main reasons people started learning Django. It is that one tool which can solve all your problems and in any kind of operation out there, we can use it. It's very simple and easy to use. All these features are inside Python. In fact, Python is currently the most popular language in the market. It is because of these 2 main features.

Python is the easiest to learn programming language out there. We can use this language in almost everything from web-development (Django) to **machine-learning** and everything in between.
These features allow the python and thus Django to be the most powerful and yet easy to learn framework than others.

Yet you must have some basic **knowledge of Python** and web-working to start developing with Django. It offers rapid development and it achieves so by being simple and logical.

3. SEO Optimised

This is a special feature of Django due to which it has edge over others. SEO is **Search Engine Optimization** as from the name it means that adding your website to the search engine such that it appears in the top results. As we know that the search engines do use some algorithms which sometimes doesn't cooperate much with the web-developer. Since we are creating our website in the human understandable form and they have to add it in the URL form on the server so that its best recognized by the search engine.
Django clears that concept by maintaining the website through URLs rather than the IP addresses on the server, which makes it easy for SEO engineers to add the website to the server while the web-developer don't have to convert the URL into some numeric code.

4. High Scalability

A lot of MNCs on a worldwide scale uses Django and it gets implement there without any defects or errors. It is the best example of Django being scalable.

Scalability means that at what scope or level, our technology gets to implement. For bigger websites like Instagram, there are lots of active users (millions of them) which generate data in huge amounts (terabytes of data/day). This kind of level requires our system or application to be very precise and error-free. It is, of course, difficult even for programmers and web developers that have years of experience.

Django is written by those experienced programmers from scratch without using **any python library existing** other then what the developers created themselves. Thousands of tests and debugging and now with lots of time on the market side as the opensource project makes Django ideal for anyone who wants to make their websites error-free and scalable to a bigger environment.

5. Versatile in Nature

Django is very versatile in its own Django way. The **logical project structure** and MVT architecture of Django sometimes seem very limiting. But, that's just opposite because by giving us the files it is providing us with a solid foundation which can then be used to make whichever application we want to create.
All that with integration with almost all the technologies out there with upgradations is by fulfilling the industry standards.

It allows extending Django with all the technologies we work with and also with the upcoming ones. Therefore, Django is the future of web development and everyone who was previously using PHP will majorly use Django.

6. Offers High Security

Django is super secure. To prove the feature, you can always take examples of lots of websites which are worldwide and posses huge traffic.

Django is secure because it covers the loopholes by default which were once left open for the backend developer to complete. Although while using Django you may not feel it but those expert backend developers can tell the quality and security of the work done by Django.

The writing of Django's code is totally from scratch while that accounts for its other features as well, but it also accounts for the security you are getting with this framework. We cannot get the security at such a huge scale with this much expertise level of code in other technologies.

It's been written by web-developers keeping in mind what problems are faced by the same and with that to get a rapid development speed.

7. Thoroughly Tested

Whenever we are learning a new technology, we want it to be durable and powerful enough to withstand the dynamic changes happening in the industry. Well, Django achieves that task with flying colors. We are trying to state that "Django has been in the industry for more than a decade and is still a popular technology which is beating frameworks like Laravel(PHP) in their own game."

MNCs all over the world extensively **uses Django for creating projects** so we can say that it works well to handle all the traffics and also accomplish international standards.
Its been around for so much time that lots of bugs and errors have been taken care of. It is a good time to learn this technology. The number of developers using Django for web development keeps growing day by day. Thus, it makes Django a crowd-tested technology. If it was not stable or task accomplishing why would it gain popularity and still be in the market.

8. Provides Rapid Development

Although, lots of technologies cover this feature as the primary feature but Django has so many other better features that sets it apart.

Here, rapid development means that we won't need expert backend knowledge to make a fully functional website. We will also not create separate server files to design the database and connect the same while also making another file for transferring data to and from the server. Django handles this work and a lot of other tasks. We won't need extra files for each task.

These tasks are like half the project time and money, and they are surely important for almost any website out there. While Django supports them inbuilt thus, allowing you to work more on your website's unique feature.

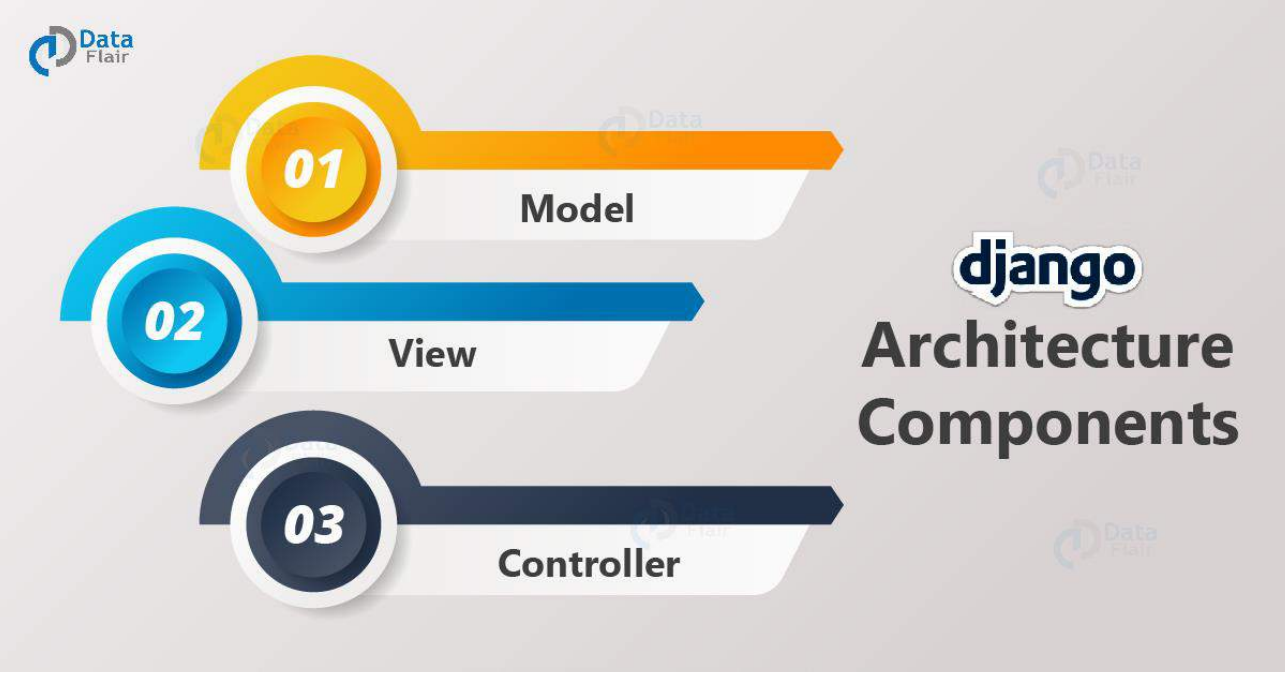
Applications

- Django framework is for rapid development, though it's not an Enterprise Solution like other languages, C#, Java, but it is useful in all types of projects. **For example –** You can create social media applications on Django, which requires scalability and capacity to handle heavy traffic and more extensive data. Also, you can make something as simple as a blogging website using the same framework.
- Django framework is perfect for implementations like **CRM (Client Relationship Management)**, Content Management System, Communication Platforms, Verification systems, **Machine Learning**, and the list goes on.
- Django is based on **DRY (don't repeat yourself)** design philosophy. The code reusability is much higher which is a great feature for developers who don't need to develop all the different programs repeatedly for each new client. It makes development speed faster and better.

6) Elaborate any one Web Framework architectural in detail.

Ans. Django Architecture – 3 Major Components of MVC Pattern

We will be understanding the MVC pattern in more detail. Django MVC architecture solves lots of problems which were there in the traditional approach for web development.
We will understand the components of the MVC pattern that are Model, Views, and Controller in detail.



MVC Pattern in Django Structure

For every website on the Internet, there are 3 main components or code partitions; Input Logic, Business Logic, and UI Logic.

These partitions of code have specific tasks to achieve, the input logic is the dataset and how the data gets to organize in the database. It just takes that input and sends it to the database in the desired format. The Business logic is the main controller which handles the output from the server in the HTML or desired format. The UI Logic as the name suggests are the HTML, CSS and JavaScript pages.

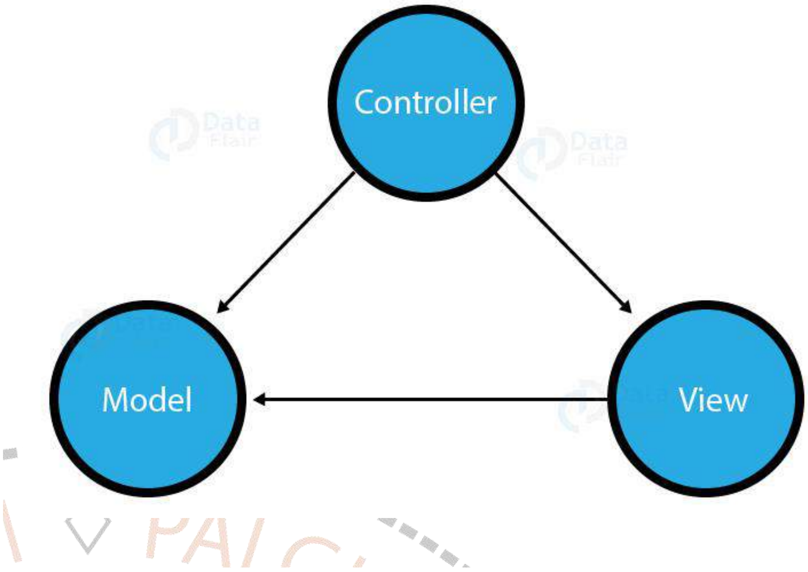
When the traditional approach was used for programming all this code was written in a single file, i.e., every piece of code increases the webpage size, which is downloaded and rendered by the browser. This was not a big problem back in the time, the webpages were largely static and websites and didn't contain much multimedia and large coding. Also, this architecture poses difficulty for developers while testing and maintaining the project as everything is inside one file.

Now, time is changing and the websites are getting bigger and bigger while providing **applications like cloud computing** and online artificial intelligence training, online development environments and what not, these projects are all implemented using MVC architecture.
So, what is MVC? It is an acronym for Model View Controller. Don't worry we will learn every aspect of the MVC pattern and also relate it to Django.

MVC pattern is a Product Development Architecture. It solves the traditional approach's drawback of code in one file, i.e., that MVC architecture has different files for different aspects of our web application/ website.The MVC pattern has three components, namely Model, View, and Controller.

This difference between components helps the developer to focus on one aspect of the web-app and therefore, better code for one functionality with better testing, debugging and scalability.

The Django architecture diagram below shows the working cycle of Django MVC architecture.



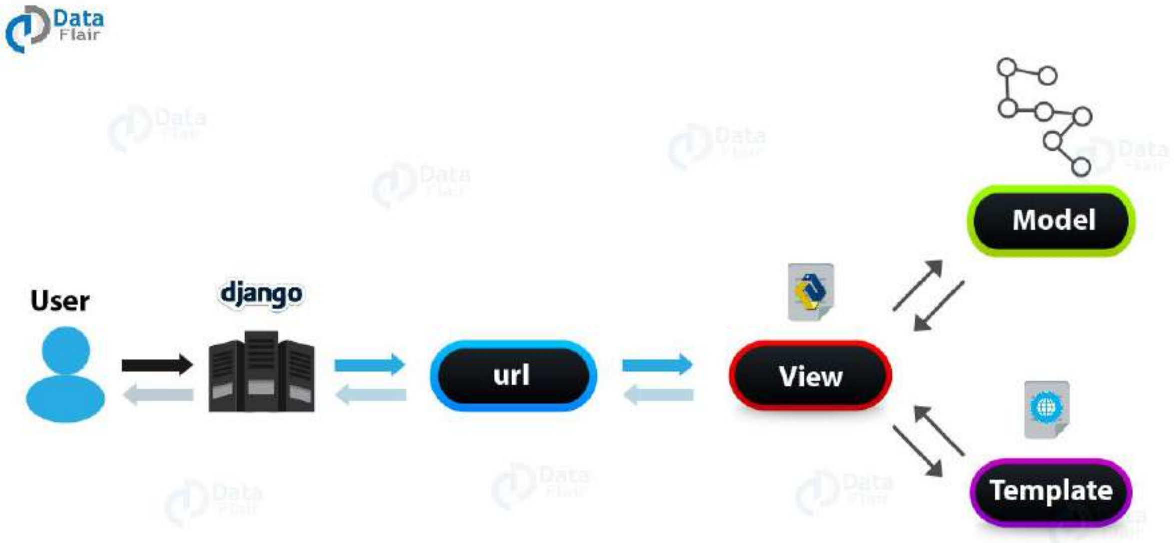
1. Model

The Model is the part of the web-app which acts as a mediator between the website interface and the database. In technical terms, it is the object which implements the logic for the application's data domain. There are times when the application may only take data in a particular dataset, and directly send it to the view (UI component) without needing any database then the dataset is considered as a model.

Although today if we want any kind of website we need to have some sort of database as we must be requiring some user input even if we are creating a simple blog site.

The Model is the component which contains Business Logic in Django architecture.

For example:
When you sign up on any website you are actually sending information to the controller which then transfers it to the models which in turn applies business logic on it and stores in the database.



2. View

This component contains the UI logic in the Django architecture.

View is actually the User Interface of the web-application and contains the parts like HTML, CSS and other frontend technologies. Generally, this UI creates from the Models component, i.e., the content comes from the Models component.

For example:
When you click on any link or interact with the website components, the new webpages that website generates is actually the specific views that stores and generates when we are interacting with the specific components.

3. Controller

The controller as the name suggests is the main control component. What that means is, the controller handles the user interaction and selects a view according to the model.

The main task of the controller is to select a view component according to the user interaction and also applying the model component.

This architecture has lots of advantages and that’s why Django is also based on this architecture. It takes the same model to an advanced level.

For example:
When we combine the two previous examples, then we can very clearly see that the component which is actually selecting different views and transferring the data to the model’s component is the controller.

Understand the Django Project Layout & Files Structure

MTV Pattern

Django is mainly an MTV (Model-Template-View) framework. It uses the terminology Templates for Views and Views for Controller.

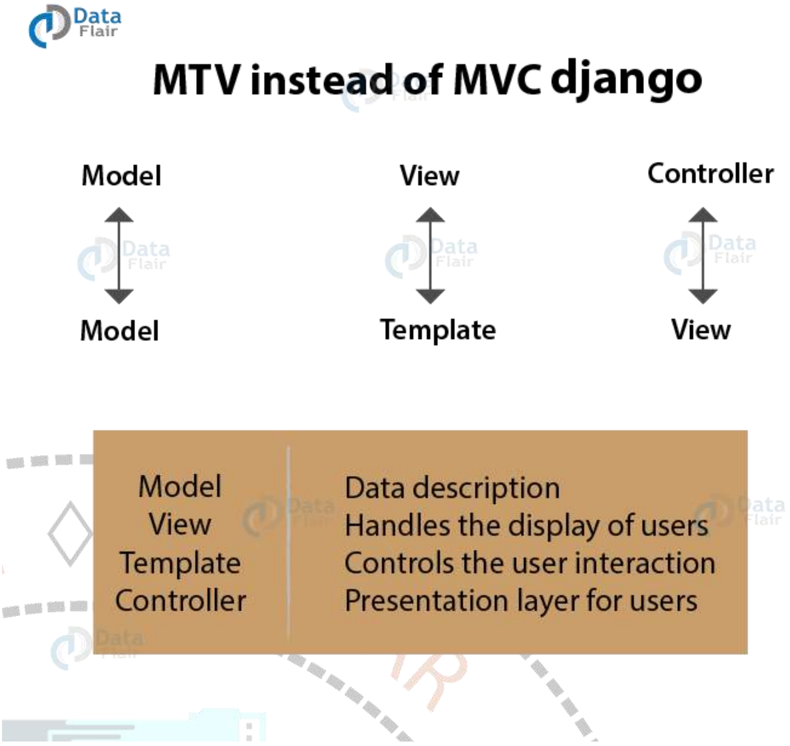
Template relates to the View in the MVC pattern as it refers to the presentation layer that manages the presentation logic in the framework and essentially controls the content to display and how to display it for the user.

Thus our **Python code** will be in views and models and HTML code will be in templates.

Benefits of Django Architecture

The Django Framework is based on this architecture and it actually communicates between all these three components without needing to write complex code. That’s why Django is gaining popularity.

This architecture in Django has various advantages like:



Model	Data description
View	Handles the display of users
Template	Controls the user interaction
Controller	Presentation layer for users

1. Rapid Development

Actually, this Django architecture that separates in different components makes it easy for multiple developers to work on different aspects of the same application simultaneously. That is also one of the features of Django.

2. Loosely Coupled

This architecture of Django has different components which require each other at certain parts of the application, at every instant, that increases the security of the overall website. As the model file will now only save on our server rather than saving on the webpage.

3. Ease of Modification

This is an important aspect of development as there are different components in Django architecture. If there is a change in different components, we don’t have to change it in other components.

This is actually one of the special features of Django, as here it provides us with much more adaptability of our website than other frameworks.

Ms. Shraddha More

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