

EXPERIMENT 1

AIM :

Develop static pages (using HTML and CSS) of a website of your choice.

THEORY :

Features of the Site

- **User Authentication:** Users can Signup for a new account, Verify their email id, Login using email and password, make a Forgot request to Reset their password.
- **Products Catalog :** A comprehensive product catalog featuring all the sports-related products that are available for sale.
- **Reviews :** User can add blogs comments, product review and ratings.
- **Contact Us Form :** A customer support feature that allows customers to reach out to the support team for any queries or issues they may have.
- **Cart Functionality :** A shopping cart feature that allows customers to add products to their cart, review their orders, and checkout.
- **Payment Gateway :** A payment gateway integration that enables secure online payment transactions using Razorpay.
- **Auto Invoicing :** After payment, the users would receive invoice (auto-generated) in their mailbox.

HTML5 elements that were used for developing this site

1. **<header>:** This element can be used to define the header section of the website, which typically includes the logo, navigation, and other important information.
2. **<nav>:** This element can be used to define the navigation section of the website, which includes links to different pages and sections of the website.
3. **<main>:** This element can be used to define the main content area of the website, which typically includes product listings, descriptions, and other relevant information.
4. **<article>:** This element can be used to define individual product pages, blog posts, or other types of content that are self-contained and independent.
5. **<section>:** This element can be used to define different sections of the website, such as product categories, featured products, and other types of content.
6. **<aside>:** This element can be used to define a sidebar or other secondary content area of the website, which may include promotional content, related products, or other types of information.
7. **<footer>:** This element can be used to define the footer section of the website, which typically includes copyright information, contact information, and other important details.
8. **<form>:** This element can be used to define forms for user input, such as registration forms, login forms, and checkout forms.
9. **<button>:** This element can be used to define buttons for different actions, such as adding a product to the cart, proceeding to checkout, or submitting a form.

CSS elements that were used for developing this site

1. **Box Model:** The box model properties (padding, border, margin) can be used to create well-organized and visually appealing layouts for different sections of the website.
2. **Colors and Backgrounds:** CSS3 provides a wide range of color and background properties that can be used to create a visually appealing and cohesive design.
3. **Typography:** CSS3 typography properties such as font-family, font-size, line-height, and letter-spacing can be used to create a professional and readable text content on the website.

4. **Responsive Design:** CSS3 media queries can be used to create responsive designs that adapt to different screen sizes and devices, providing a consistent user experience across all platforms.
5. **Transitions and Animations:** CSS3 animations and transitions can be used to add visual interest and interactivity to the website, such as hover effects, dropdown menus, and pop-up windows.
6. **Flexbox and Grid:** CSS3 Flexbox and Grid properties can be used to create advanced layouts, organise products into rows or columns, and create responsive designs that adapt to different screen sizes.
7. **Buttons:** CSS3 provides many properties for creating visually appealing buttons with hover, active and focus states, and different types of button styles like flat, 3D, or gradient.
8. **Images:** CSS3 properties such as border-radius, box-shadow, and object-fit can be used to create stunning images that help showcase products and promote engagement.
9. **Icons:** CSS3 provides the ability to easily integrate custom or built-in icons that can be used to promote navigation and provide visual cues.
10. **Form Styling:** CSS3 properties can be used to create visually appealing form elements, including buttons, drop-downs, input fields, and checkboxes/radio buttons.

CODE :

```

<!DOCTYPE html>
<html>
<head>
    <!-- Responsive Tags -->
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0 shrink-to-fit=no">
    <!-- Title -->
    <title>Sweet Cart</title>
    <!-- favicon/logo -->
    <link rel="icon" href="image/logo1.png" sizes="32x32" type="image/png">
    <!-- SEO tags -->
    <meta name="description" content="Sweet Cart is an online sweets store.">
    <meta name="author" content="Atharva Parkhe">
    <meta name="keywords" content="Sweet Cart, Sweets, Online Store, E-Shop">
    <meta property="og:title" content="Sweet Cart" />
    <meta property="og:type" content="E-Shop" />
    <meta property="og:url" content="https://blueskript.com" />
    <meta property="og:image" content="image/logo1.png" />
    <!-- Style -->
    <link rel="stylesheet" href="style.css">
    <link rel="preconnect" href="https://fonts.gstatic.com">
    <link href="https://fonts.googleapis.com/css2?
family=Poppins:wght@200;300;500;600;700&display=swap"
        rel="stylesheet">
</head>
<body>
    <div class="header">
        <div class="container">
            <!-- Navbar -->
            <div class="navbar">
                <div class="logo">
                    <a href="INDEX.html">
                        
                    </a>
                </div>
                <nav>
                    <ul id="menuitem">
                        <li><a href="INDEX.html">HOME</a></li>

```

```

        <li><a href="allproduct.html">PRODUCTS</a></li>
        <li><a href="aboutus.html">ABOUT US</a></li>
        <li><a href="blog.html">BLOG</a></li>
        <li><a href="contact.html">CONTACT US</a></li>
    </ul>
</nav>
<a href="cart.html"
class="yo">2</a>

</div>
<!-- Hero Section -->
<div class="row">
    <div class="col-1">
        <h1>Life Is Short,<br> So Make It Sweet Here!</h1>
        <p>At work, rest and play, you get three great tastes in a Milky Way – Butterfinger.</p>
        <a href="allproduct.html" class="btn">Explore now &#8594;</a>
    </div>
    <div class="col-2"></div>
</div>
</div>
<!-- Products -->
<div class="smallcon">
    <div class="row">
        <div class="col4" style="border-radius: 4%;">
            <a href="singleProduct.html">
                
                    <h4>Gulab Jamun</h4>
                    <p>Rs.15 per piece</p>
                </a>
            </div>
        <div class="col4" style="border-radius: 4%;">
            <a href="singleProduct.html">
                
                    <h4>Ras Malai</h4>
                    <p>Rs.15 per piece</p>
                </a>
            </div>
        <div class="col4" style="border-radius: 4%;">
            <a href="singleProduct.html">
                
                    <h4>Modak</h4>
                    <p>Rs.15 per piece</p>
                </a>
            </div>
        <div class="col4" style="border-radius: 4%;">
            <a href="singleProduct.html">
                
                    <h4>Jalebi</h4>
                    <p>Rs.15 per piece</p>
                </a>
            </div>
        </div>
    </div>
<!-- About Us -->

```

```

<div>
  <h2 class="title">About Us</h2>
  <div class="row">
    <div class="info">
      <p>A confectionery store more commonly referred to as a sweet<br> shop in the United Kingdom, a candy store in North America, or a lolly shop in Australia<br>sells confectionery and the intended market is usually children. <br>Most confectionery stores are filled with an assortment of sweets far larger than<br> a grocer or convenience store could accommodate.<br> They often offer a selection of old-fashioned treats and sweets from different countries.<br> Very often unchanged in layout since their inception, <br>confectioneries are known for their warming and nostalgic feel.<br> The village of Pateley Bridge claims to<br> have the oldest confectionery store in England.</p>
  </div>
  <div class="sec"></div>
</div>
<!-- Testimonials -->
<h2 class="title">Testimonials</h2>
<div class="feedback">
  <div class="smallcon">
    <div class="row">
      <div class="col3" style="border-radius: 5%;">
        <h2 class="quote">"</h2>
        <p>"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. team is better for it."</p>
        
        <h3>Abhinav Borde</h3>
      </div>
      <div class="col3" style="border-radius: 5%;">
        <h2 class="quote">"</h2>
        <p>"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. team is better for it."</p>
        
        <h3>Sunidhi Naik</h3>
      </div>
      <div class="col3" style="border-radius: 5%;">
        <h2 class="quote">"</h2>
        <p>"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. team is better for it."</p>
        
        <h3>Samrudh Dhaimodkar</h3>
      </div>
    </div>
  </div>
</div>
<!-- Footer -->

```

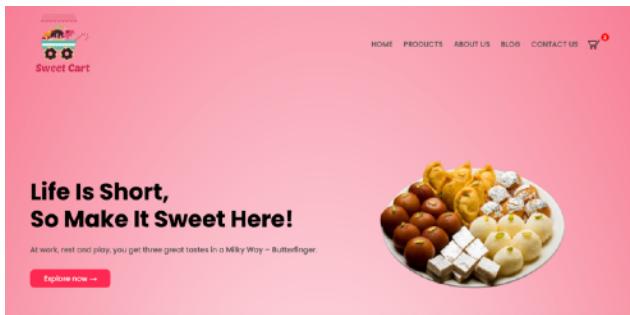
```

<footer>
    <div class="footer">
        <div class="container">
            <hr>
            <div class="row">
                <div class="footrecol1">
                    <h3>Download Our App</h3>
                    <p>Download App for Android And IOS Mobile Phone</p>
                    <div class="applogo">
                        
                        
                    </div>
                </div>
                <div class="footrecol2">
                    
                    <p>Our purpose is to sustainably make  

                        the pleasure<br> and benefit of sweets accessible to the many</p>
                </div>
                <div class="footrecol3">
                    <h3>Useful Links</h3>
                    <ul>
                        <li><a href="aboutus.html">About Us</a></li>
                        <li><a href="allproduct.html">Products</a></li>
                        <li><a href="blog.html">Blog</a></li>
                        <li><a href="contact.html">Contact Us</a></li>
                    </ul>
                </div>
                <div class="footrecol4">
                    <h3>Follow Us</h3>
                    <ul>
                        <li>
                            <a href="" target="_blank">
                                 Facebook</a>
                        </li>
                        <li>
                            <a href="" target="_blank">
                                 Instagram</a>
                        </li>
                        <li>
                            <a href="" target="_blank">
                                 Twitter</a>
                        </li>
                        <li>
                            <a href="" target="_blank">
                                 YouTube</a>
                        </li>
                    </ul>
                </div>
                <hr>
                <p class="copy">Powered by <a href="http://blueskript.com" target="_blank" rel="noopener noreferrer" style="color: blue;">BlueSkript</a></p>
            </div>
        </div>
    </div>
</body>
</html>

```

SCREEN-SHOTS OF PAGES :



About Us



Top Selling Products

			
Gulab Jamun Rs.15 per piece	Ras Malai Rs.15 per piece	Modak Rs.15 per piece	Jalebi Rs.15 per piece

Testimonials



"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. Team is better for it."

Abhirav Borde



"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. Team is better for it."

Sarikhali Naik



"I can tell how hard you've worked to be more during meetings. Yesterday, although disagreed with David's idea, you asked some good questions first. Team is better for it."

Somruthi Dhamodkar

Contact Us



suj rood radhe estate colony
ponoji goa

1234567890
Monday to Sunday, 10am to 9pm

www.sweetcart@gmail.com
Email for query

Puran Poli



Rs.15 per piece

1 kg

[buy now](#) [Add to cart](#)

[Product detail →](#)

In an 1885 cover cartoon for Puck, Joseph Keppler satirized the dangers of additives in candy by depicting the "mutual friends" candy, doctors, and gravediggers. By 1906,

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Useful Links

- [About Us](#)
- [Products](#)
- [Blog](#)
- [Contact Us](#)

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CONCLUSION :

Static pages (using only HTML and CSS) of the website (online store) were developed successfully.

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EXPERIMENT 2

AIM :

To define a DTD and Schema for a given XML document and display it using XSL.

THEORY :

A Document Type Definition (DTD) describe the tree structure of a document and something about its data. It is a set of markup affirmations that actually define a type of document for the SGML family, like GML, SGML, HTML, XML.

A DID can be declared inside an XML document as inline or as an external recommendation. DTD determines how many times a node should appear, and how their child nodes are ordered.

There are 2 data type, PCDATA and CDATA. PCDATA is parsed character dab. CDATA is character data, not usually parsed.

XSDs can also be used to generate die XML document It also check the vocabulary of the document. It doesn't require processing by a parser. XSD checks for die concerns of the structure of the XML file. XSD was first published in 2001 and after that, it was published in 2004. XSDs are written in XML and hence unlike earlier schemas like DTD, SOX, etc. it doesn't require a parser in between for middle processing.

Syntax :

```
<!DOCTYPE element DTD identifier [  
    first declaration  
    second declaration  
    nth declaration  
>
```

Characteristics

- XSD supports namespaces.
- Different date types are supported by XSD.
- It is extensible for additional features.
- It is supported by W3C organisation.
- It describes the structure of a XML document.

Feature of XSD

- XSDs are more powerful than DTDs.
- XSDs can be widely extended for additions in future.
- XSDs make it easier to define various data patterns.
- Data Communication becomes secure because of XML schemas

Advantages

- It can be used to provide restrictions on data.
- It can be used to specify default values.
- XSD is extensible.
- It doesn't require intermediate processing by a parser.

Disadvantages

- It is complex in nature.
- It has limited support for unordered content.
- It doesn't have a formal mathematical description
- The documentation support is limited.

XSLT sends for Extensible Stylesheet Language Transformation.

- XSLT is used to transform XML document from one form to another form.
- XSLT uses Xpath to perform matching of nodes to perform these transformation ,
- The result of applying XSLT to XML document could be an another XML document, HTML, text or any another document from technology perspective.
- The XSL code is written within the XML document with the extension of (.xsl). In other words, an XSLT document is a different kind of XML document.

XML Namespace

- XML Namespaces are unique names
- XML Namespace is a mechanism by which element or attribute is assigned to a group.
- XML Namespace is used to avoid the name conflict in the XML document.
- XML Namespace is recommended by W3C.

XML Namespace Declaration

- It is declared using reserved attribute such as the attribute is xmlns or it can begin with xmlns:
- <element xmlns:name = "URL"> where Namespace starts with the xmlns,
- The word name is the namespace prefix.
- The URL is the namespace identifier

DTD

```
<!DOCTYPE DinoList [  
    <!ELEMENT DinoList (Dinosaur+)>  
    <!ELEMENT Dinosaur (Name,Group,Range,PhysicalAttr)>  
    <!ATTLIST Dinosaur period CDATA #IMPLIED >  
    <!ELEMENT Name (#PCDATA)>  
    <!ELEMENT Group (#PCDATA)>  
    <!ELEMENT Range (Region+)>  
    <!ELEMENT Region (#PCDATA)>  
    <!ELEMENT PhysicalAttr (Height*,Length,Weight)>  
    <!ELEMENT Height (#PCDATA)>  
    <!ATTLIST Height unit CDATA #REQUIRED >  
    <!ELEMENT Length (#PCDATA)>  
    <!ATTLIST Length unit CDATA #REQUIRED >  
    <!ELEMENT Weight (#PCDATA)>  
    <!ATTLIST Weight unit CDATA #REQUIRED >  
>]
```

Schema

```
<?xml version="1.0" encoding="UTF-8"?>  
<DinoList>  
    <Dinosaur period="Late Cretaceous">  
        <Name>Tyrannosaurus Rex</Name>  
        <Group>Carnosaur</Group>  
        <Range>  
            <Region>Europe</Region>  
            <Region>North America</Region>  
        </Range>  
        <PhysicalAttr>  
            <Length unit="feet">39</Length>  
            <Weight unit="tons">6</Weight>  
        </PhysicalAttr>  
    </Dinosaur>  
    <Dinosaur period="Early Jurassic">  
        <Name>Dilophosaurus</Name>  
        <Group>Coelurosaur</Group>  
        <Range>  
            <Region>Asia</Region>
```

```

<Region>North America</Region>
</Range>
<PhysicalAttr>
  <Height unit="metres">3</Height>
  <Length unit="metres">6</Length>
  <Weight unit="tons">2</Weight>
</PhysicalAttr>
</Dinosaur>
<Dinosaur period="Late Jurassic">
  <Name>Stegosaurus</Name>
  <Group>Stegosaur</Group>
  <Range>
    <Region>Europe</Region>
    <Region>Asia</Region>
    <Region>North America</Region>
  </Range>
  <PhysicalAttr>
    <Length unit="metres">9</Length>
    <Weight unit="kgs">3100</Weight>
  </PhysicalAttr>
</Dinosaur>
</DinoList>

```

DTD Validation

The screenshot shows the XML Validator interface. At the top, it says "Edit, beautify and validate XML". Below that is a "Validation result" panel with three items: "Syntax wellformed" (PASSED), "DTD validation" (PASSED), and "XSD validation" (OMITTED). A note states: "No schema reference provided using either xsi:schemaLocation or xsi:noNamespaceSchemaLocation attribute." Below the validation panel is a "Create free account" button.

The main area has two tabs: "XML" and "XML SCHEMA". The "XML" tab contains the XML code from above. The "XML SCHEMA" tab contains the XSD code:

```

<xsd:element name="Weight">
  <xsd:complexType>
    <xsd:complexContent>
      <xsd:extension base="xs:int">
        <xsd:attribute name="unit" type="xs:string" use="required" />
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
</xsd:element>

```

Below the tabs are "XML to XSD", "Browse XML file", and "Copy to clipboard" buttons for the XML editor, and "XSD to XML", "Browse XML SCHEMA file", and "Copy to clipboard" buttons for the XSD editor. At the bottom, a green bar says "Your XML conforms to the specified schema."

XML document using XSL

```

<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
  xmlns:xsl="myFile.xml">
  <xsl:template match="/">

```

```

<html>
  <head>
    <title>DinoList</title>
  </head>
  <body>
    <h1>DinoList</h1>
    <table border="1">
      <tr bgcolor="#9acd32">
        <th>Name</th>
        <th>Group</th>
        <th>Period</th>
        <th>Regions</th>
        <th>Length</th>
        <th>Height</th>
        <th>Weight</th>
      </tr>
      <xsl:for-each select="DinoList/Dinosaur">
        <tr>
          <td><xsl:value-of select="Name"/></td>
          <td><xsl:value-of select="Group"/></td>
          <td><xsl:value-of select="@period"/></td>
          <td>
            <xsl:for-each select="Range/Region">
              <xsl:value-of select=". "/>
              <xsl:if test="position() != last()">
                <xsl:text>, </xsl:text>
              </xsl:if>
            </xsl:for-each>
          </td>
          <td><xsl:value-of select="PhysicalAttr/Length"/> <xsl:value-of select="PhysicalAttr/Length/@unit"/></td>
          <td><xsl:value-of select="PhysicalAttr/Height"/> <xsl:value-of select="PhysicalAttr/Height/@unit"/></td>
          <td><xsl:value-of select="PhysicalAttr/Weight"/> <xsl:value-of select="PhysicalAttr/Weight/@unit"/></td>
        </tr>
      </xsl:for-each>

    </table>
  </body>
</html>
</xsl:template>
</xsl:stylesheet>

```

DinoList

Name	Group	Period	Regions	Length	Height	Weight
Tyrannosaurus Rex	Carnosaur	Late Cretaceous	Europe, North America	39feet		6tons
Dilophosaurus	Coelurosaur	Early Jurassic	Asia, North America	6metres	3metres	2tons
Stegosaurus	Stegosaur	Late Jurassic	Europe, Asia, North America	9metres		3100kgs

CONCLUSION :

The DTD and XML schema for the following XML was defined and validated and displayed the same using XSL successfully.

EXPERIMENT 3

AIM :

To design website pages using JavaScript/jQuery.

THEORY :**Javascript**

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

JavaScript (JS) is a scripting language, primarily used on the Web. It is used to enhance HTML pages and is commonly found embedded in HTML code. JavaScript is an interpreted language. Thus, it doesn't need to be compiled. JavaScript renders web pages in an interactive and dynamic fashion. This allowing the pages to react to events, exhibit special effects, accept variable text, validate data, create cookies, detect a user's browser, etc.

Features of JavaScript

- JavaScript is a object-based scripting language.
- Giving the user more control over the browser.
- It Handling dates and time.
- It Detecting the user's browser and OS,
- It is light weighted.
- JavaScript is a scripting language and it is not java.
- JavaScript is interpreter-based scripting language.

Advantages of JavaScript

- Less server interaction – You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.
- Immediate feedback to the visitors – They don't have to wait for a page reload to see if they have forgotten to enter something.
- Increased interactivity – You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.
- Richer interfaces – You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

Disadvantages of JavaScript

- Client-side JavaScript does not allow the reading or writing of files.
- It cannot be used for networking applications because there is no such support available.
- It doesn't have any multithreading or multiprocessor capabilities.

jQuery

jQuery is a popular and widely-used JavaScript library that simplifies HTML document traversing, event handling, and Ajax interactions for rapid web development. Some of its key features, advantages, and disadvantages include:

Features of jQuery

- DOM manipulation: jQuery makes it easy to manipulate the Document Object Model (DOM), allowing developers to quickly and easily change the content and styling of web pages.
- Event handling: jQuery simplifies the process of adding event listeners and handling user input, making it easy to create interactive and responsive web pages.
- AJAX support: jQuery simplifies the process of making asynchronous HTTP requests and handling responses, allowing developers to create dynamic and data-driven web applications.

Advantages of jQuery

- Simplifies JavaScript coding: jQuery provides a simplified and streamlined way to write JavaScript code, making it easier for developers to create complex web applications quickly.
- Saves development time: jQuery simplifies many common web development tasks, reducing the amount of time and effort required to create modern and responsive web applications.
- Large community and ecosystem: jQuery has a large and active community of developers who have created numerous plugins, tutorials, and resources to help others learn and use the library effectively.
- Cross-browser compatibility: jQuery abstracts away many of the differences between web browsers, making it easier to write code that works across different platforms and devices.

Disadvantages of jQuery

- Performance overhead: jQuery adds some additional overhead to web pages, which can slow down the performance of complex and data-intensive applications.
- Code bloat: jQuery can sometimes result in larger and more complex code, particularly when developers rely heavily on plugins or external libraries.
- Dependence on external library: jQuery requires an external library to be included in the web page, which adds some additional complexity to the development process.

SCRIPTS USED IN THE WEBSITE

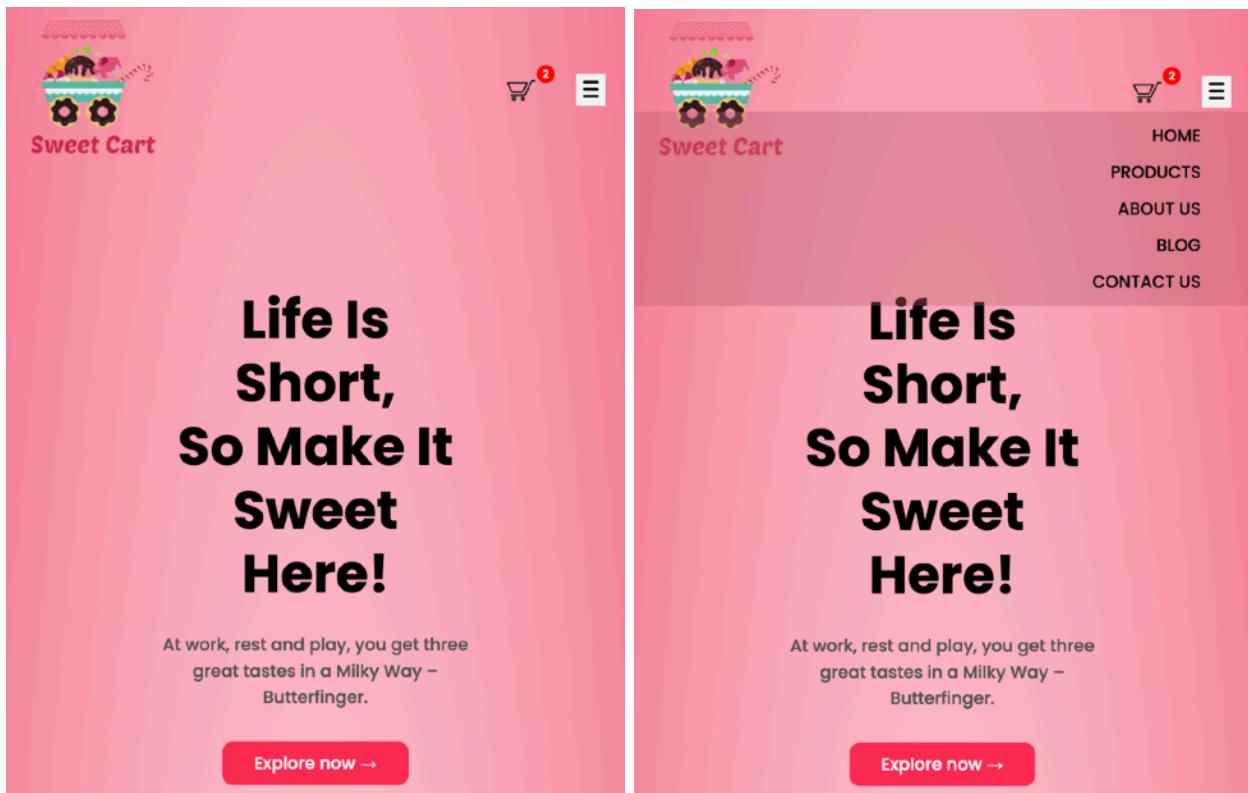
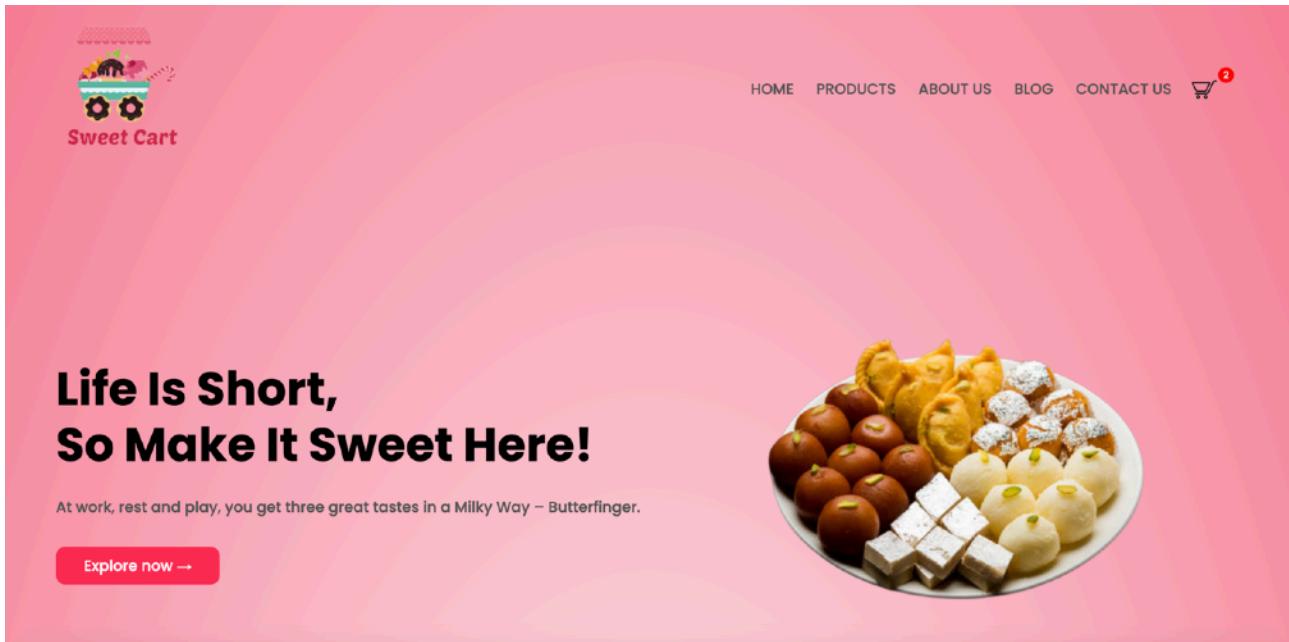
1. Responsive Webpage - Resize navbar based on screen size

Responsive web design is a web development approach that creates dynamic changes to the appearance of a website, depending on the screen size and orientation of the device being used to view it. This is one approach to the problem of designing for the multitude of devices available to customers, ranging from tiny phones to huge desktop monitors.

Code

```
<script>
    var menuitem = document.getElementById("menuitem")
    menuitem.style.maxHeight = "0px";
    function menutoggle() {
        if (menuitem.style.maxHeight == "0px") {
            menuitem.style.maxHeight = "200px";
        }
        else {
            menuitem.style.maxHeight = "0px";
        }
    }
</script>
```

System Images



2. Products Slider

A product slider, or carousel, is a slideshow displaying product images and details for website visitors to scroll through. Product sliders allow you to showcase multiple products at once, feature related products, and make it easier for visitors to browse your online store. A slider allows users to select a specific value or drag to define a range along the track.

Code

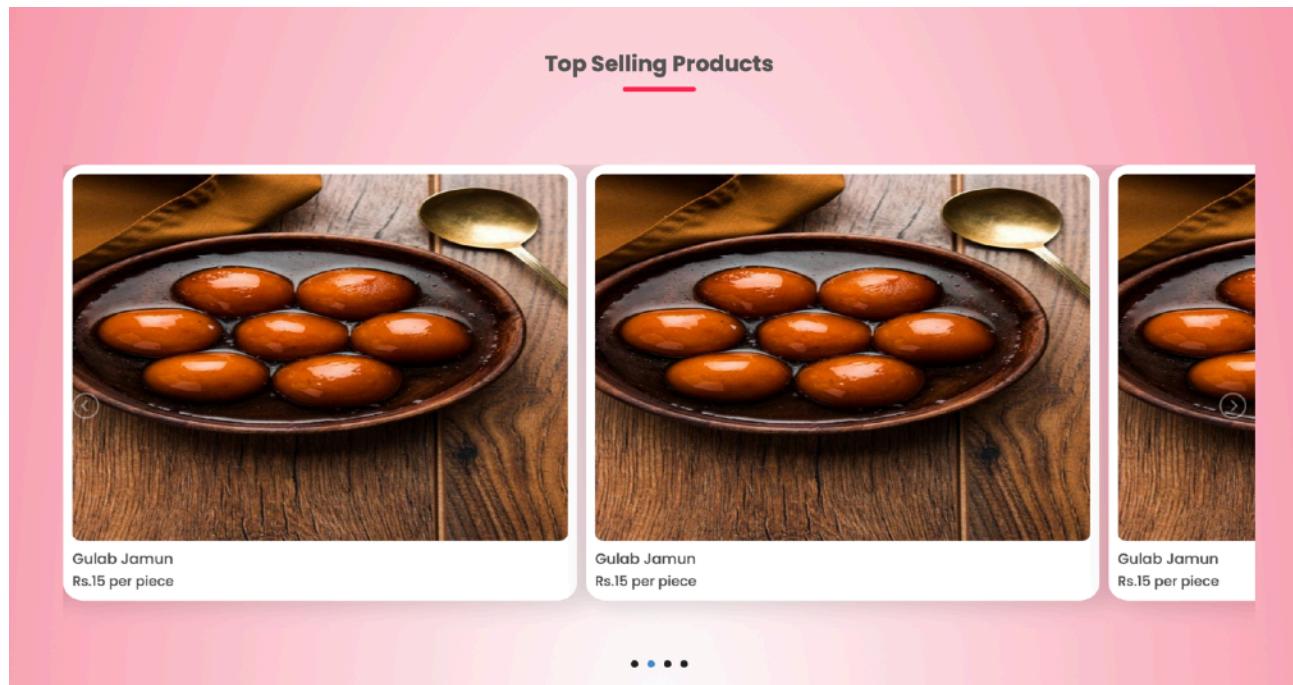
```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/lightslider/1.1.6/css/lightslider.css" integrity="sha512-+1GzNJIJQ0SwHimHEEDQ0jbyQuglxEdmQmKsu8KI7QkMPAnyDrL9TAnVyLPEttcTxlnLVzaQgxv2FpLCLtli0A==" crossorigin="anonymous" referrerpolicy="no-referrer" />

<script src="https://code.jquery.com/jquery-3.6.4.js" integrity="sha256-a9jBBRygX1Bh5lt8GZjXDzyOB+bWve9EiO7tROUTj/E=" crossorigin="anonymous"></script>

<script src="https://cdnjs.cloudflare.com/ajax/libs/lightslider/1.1.6/js/lightslider.min.js" integrity="sha512-Gfrxsz93rxFuB7KSYlln3wFqBaXUc1jt3dGCp+2jTb563qYvnUBM/GP2ZUtRC27STN/zUamFtVFAIsRFoT6/w==" crossorigin="anonymous" referrerpolicy="no-referrer"></script>

<script>
$(document).ready(function() {
    $('#autoWidth').lightSlider({
        autoWidth:true,
        loop:true,
        onSliderLoad: function() {
            $('#autoWidth').removeClass('cS-hidden');
        }
    });
});
</script>
```

System Images



3. Toast Message

In current user interface terms a toast is a message that appears on the screen; it is often short, often appears only briefly, and often animates up from the bottom (like a piece of ghostly yet precisely-crafted toast), though other directions and a fade-in/-out is common.

Code

```
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.1/css/all.min.css" integrity="sha512-+4zCK9k+qNFUR5X+cKL9EIR+ZOhtIloNI9GIKS57V1MyNsYpYcUrUeQc9vNfzsWfV28laLL3i96P9s dNyeRssA==" crossorigin="anonymous" />

function showSuccessToast() {
    toast({
        title: "Toast Message",
        message: "Hello Nadine Ma'am",
        type: "success",
        duration: 5000
    });
}

function toast({ title = "", message = "", type = "info", duration = 3000 }) {
    const main = document.getElementById("toast");
    if (main) {
        const toast = document.createElement("div");

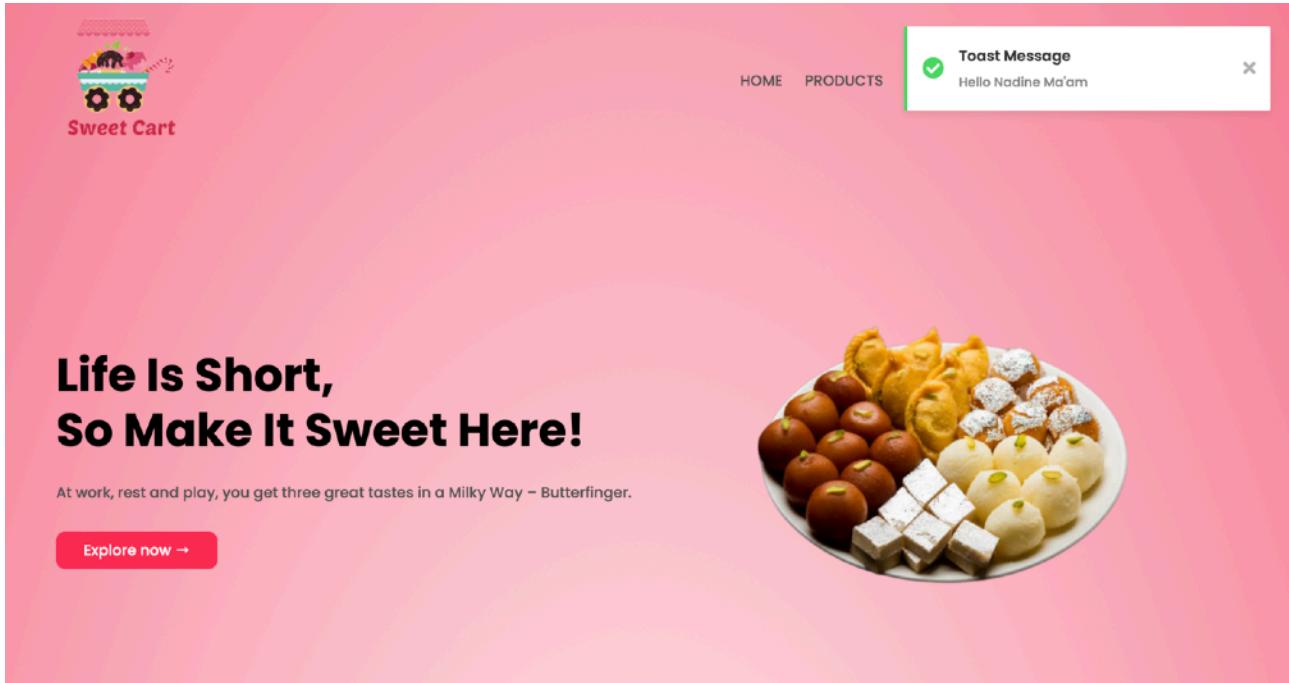
        // Auto remove toast
        const autoRemoveld = setTimeout(function () {
            main.removeChild(toast);
        }, duration + 1000);

        // Remove toast when clicked
        toast.onclick = function (e) {
            if (e.target.closest(".toast__close")) {
                main.removeChild(toast);
                clearTimeout(autoRemoveld);
            }
        };
        const icons = {
            success: "fas fa-check-circle",
            info: "fas fa-info-circle",
            warning: "fas fa-exclamation-circle",
            error: "fas fa-exclamation-circle"
        };
        const icon = icons[type];
        const delay = (duration / 1000).toFixed(2);

        toast.classList.add("toast", `toast--${type}`);
        toast.style.animation = `slideInLeft ease .3s, fadeOut linear 1s ${delay}s forwards`;

        toast.innerHTML = `
            <div class="toast__icon">
                <i class="${icon}"></i>
            </div>
            <div class="toast__body">
                <h3 class="toast__title">${title}</h3>
                <p class="toast__msg">${message}</p>
            </div>
            <div class="toast__close">
                <i class="fas fa-times"></i>
            </div>
        `;
        main.appendChild(toast);
    }
}
```

System Images



CONCLUSION :

The website implementing Javascript and jQuery was implemented successfully.

EXPERIMENT 4

AIM :

Creating a Three-tier application using PHP and Database.

THEORY :

PHP: The PHP Hypertext Pre-processor (PHP) is a server scripting language, and a powerful tool for making dynamic and interactive Web pages. PHP is a widely-used, free, and efficient alternative to competitors such as Microsoft's ASP.

Five important characteristics make PHP's practical nature possible are Simplicity, Efficiency, Security, Flexibility and Familiarity.

Sessions:

- Sessions are a mechanism in web development that allow you to store user-specific information on the server between HTTP requests. They are a way to maintain state information across multiple requests from the same client.
- When a session is started, the server creates a unique identifier for the session, which is typically stored in a cookie on the client's browser. The server then stores any session-specific data in a storage location associated with the session identifier.
- The session data can include any kind of information that is necessary to maintain state across multiple requests, such as user authentication data, shopping cart contents, or user preferences.
- To start a session in PHP, you must first call the `session_start()` function. This will create a new session if one does not already exist or resume an existing session if one is present. Once the session is started, you can store and retrieve session data using the `$_SESSION` super global array.

Syntax:

- **Starting a session:** `<?php session_start(); ?>`
- **Setting a session variable:** `<?php $_SESSION['username'] = 'john_doe'; ?>`
- **Retrieving a session variable:** `<?php $username = $_SESSION['username']; ?>`
- **Destroying a session:** `<?php session_destroy(); ?>`

MySQL Database : MySQL is a widely used open-source relational database management system that stores data in tables. Tables are structured collections of related data organised into columns and rows. MySQL uses queries to retrieve or manipulate data, and joins to combine data from multiple tables. Indexes are used to improve the speed of data retrieval, while transactions group multiple database operations into a single, atomic unit of work. MySQL also provides a range of security features, including user accounts and privileges, encryption, and auditing, to protect data from unauthorised access.

SQL: SQL is a programming language used to manage relational databases. It includes features such as SELECT statements for retrieving data, WHERE clauses for filtering results, JOIN operations for combining data from multiple tables, GROUP BY clauses for grouping and summarising data, ORDER BY clauses for sorting results, INSERT statements for adding new data, and UPDATE statements for modifying existing data. These features allow for efficient and flexible management of data in a relational database system.

CODE :

1. Database Connection

```
<?php

$db_host = "localhost";
$db_user = "root";
$db_password = "";
$db_name = "sweet";

$conn = mysqli_connect($db_host, $db_user, $db_password, $db_name);

if(!$conn){
    die(mysqli_connect_errno());
}

?>
```

2. User Signup

```
<?php
    if(isset($_POST["em"]) && isset($_POST["pw"]) && isset($_POST["nm"])){
        $nm = $_POST["nm"];
        $em = $_POST["em"];
        $pw = $_POST["pw"];

        $query = "insert into `accounts` (`name`, `email`, `password`) values ('$nm', '$em',
'$pw');";
        $result = mysqli_query($conn, $query);
        // $num = mysqli_num_rows($result);
        header("Location: index.php");
        exit();
    }
?>
```

3. User Login

```
<?php
    if(isset($_POST["em"]) && isset($_POST["pw"])){
        $em = $_POST["em"];
        $pw = $_POST["pw"];

        $query = "select * from accounts where email='$em' and password='$pw';";
        $result = mysqli_query($conn, $query);
        $num = mysqli_num_rows($result);

        if($num == 1) {
            header("Location: main.php");
            exit();
        } else {
            echo "Login Failed";
        }
    }
?>
```

4. Session - Check if the user is Authenticated

```
<?php
    session_start();
    $_SESSION['LoggedIn'] = true;
    $_SESSION['Name'] = $name;
    header("Location:HomePage.php");
    exit;
?>
```

5. Add To Cart

```
<?php

if (isset($_SESSION['id'])) {
    $user_id = $_SESSION['id'];
}

$sql = "SELECT * FROM cart WHERE user_id=$user_id";
$result = $con->query($sql);
?>
<form action="add_to_cart.php" method="POST">
    <?php
        if (isset($_SESSION['id'])) {
            $id = $_SESSION['id'];
        }
    ?>
    <input type="hidden" name="user_id" id="user_id" value="<?php echo $id; ?>">
    <input type="hidden" name="product_id" id="product_id" value="1">
    <input type="hidden" name="product_name" id="product_name">
    <input type="hidden" name="product_price" id="product_price" value="450">
    <input type="hidden" name="product_image" id="product_image" value="plate-1.png">
    <button type="submit">
        
        <span>Add to cart</span></button>
    </form>

?>
```

SCREEN-SHOTS :

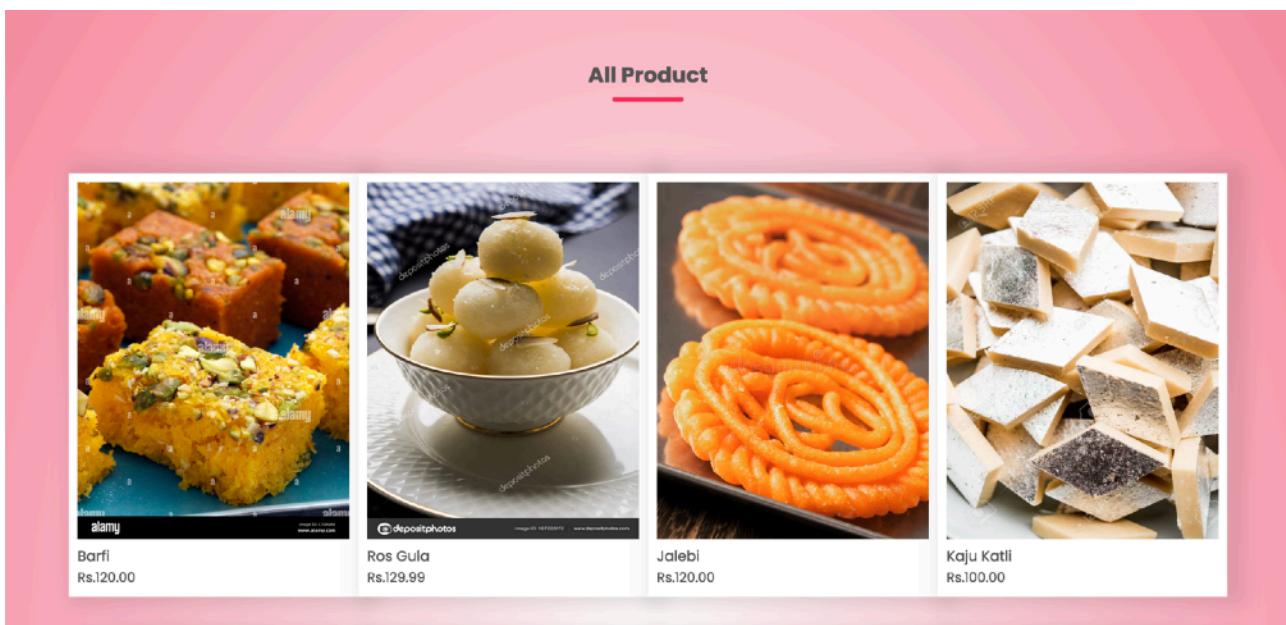
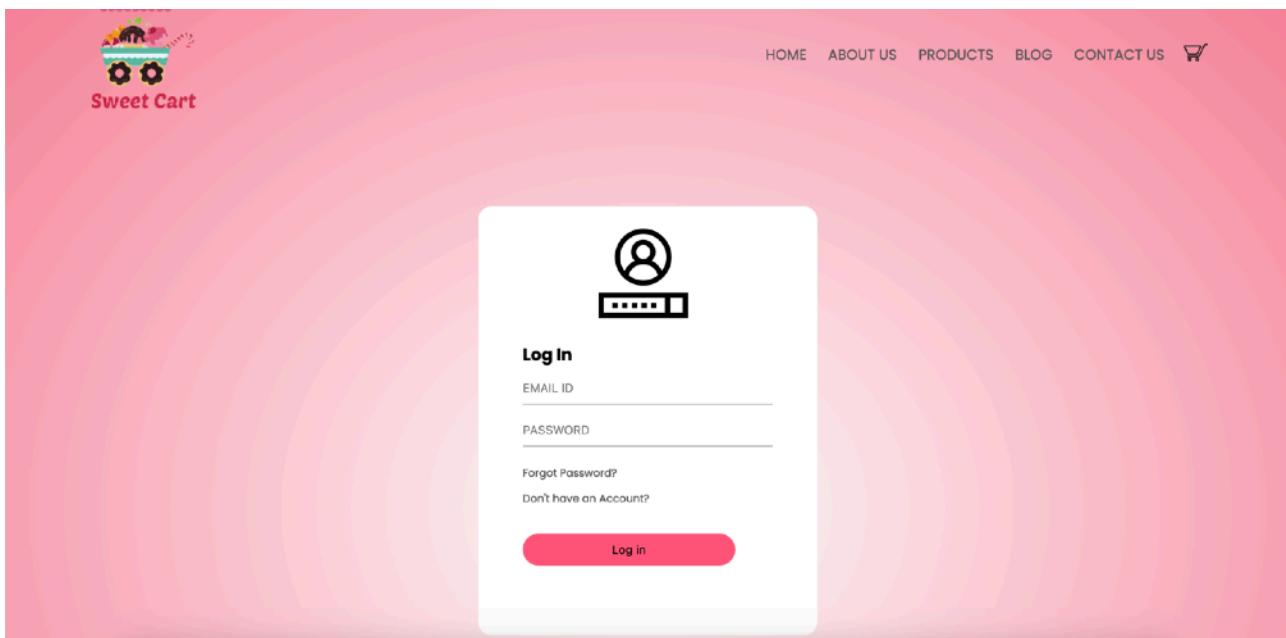
1. Database

		id	name	price	description	image	
<input type="checkbox"/>		Edit		Copy		Delete	1 Gulab Jamun 10 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/gulab.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	2 Ros Gulla 15 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/ros-gulla.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	3 Gajar Barfi 18 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/barfi.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	4 Jalebi 8 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/jalebi.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	5 Modak 12 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/modak.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	6 Kaju Katli 19 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/kaju-katli.webp
<input type="checkbox"/>		Edit		Copy		Delete	7 Malai Pedha 11 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/pedha.jpeg
<input type="checkbox"/>		Edit		Copy		Delete	8 Ras Malai 10 Lorem ipsum dolor sit amet, consectetur adipiscing... /data/products/ras-malai.jpeg

			id	user	total	cart	product	quantity	total	
<input type="checkbox"/>	Edit	Copy	Delete	1	atharva@gmail.com	120	1	5	10	120
<input type="checkbox"/>	Edit	Copy	Delete	2	datta@gmail.com	64	2	2	3	45
							2	6	1	19

			name	email	password	
<input type="checkbox"/>	Edit	Copy	Delete	Atharva	atharva@gmail.com	123
<input type="checkbox"/>	Edit	Copy	Delete	Dattaraj	datta@gmail.com	321

2. Application





Gulab Jamun

0.0 ★

Rs.150.00

1 kg

[Add to Cart](#)

Product detail →

Lore ipsum dolor sit amet, consectetur adipiscing elit. Proin id arcu ante. Lore ipsum dolor sit amet, consectetur adipiscing elit. In iaculis, turpis ut iaculis vehicula, nisi libero bibendum turpis, accumsan placerat augue eros id velit. Nullam condimentum est arcu, id mattis libero condimentum sit amet. Maecenas non augue id urna lacinia semper.



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Cart

product	quantity	price
Ros Gula  Rs.120.99	+ 3 -	Rs. 389.97
Jalebi  Rs.120.00	+ 2 -	Rs. 240.0
Subtotal		Rs. 629.97

CONCLUSION :

A Three-tier application using PHP and Database was successfully implemented.

EXPERIMENT 5

AIM :

To create a three-tier application using ASP .net and database.

THEORY :

ASP.NET Tutorial provides basic and advanced concepts of ASP.NET. Our ASP.NET Tutorial is designed for beginners and professionals both.

ASP.NET is a web framework designed and developed by Microsoft. It is used to develop websites, web applications and web services. It provides fantastic integration of HTML, CSS and JavaScript. It was first released in January 2002. It is built on the Common Language Runtime (CLR) and allows programmers to write code using any supported .NET language.

TYPES OF CONTROLS USED**Menu Control (Navigation Control)**

Menu is another navigation control in ASP.NET which is used to display menu in web page. This control is used in combination with SiteMapDataSource control for navigating the web Site. It displays two types of menu static menu and dynamic menu. Static menu is always displayed in menu Control, by default only menu items at the root levels are displayed. Dynamic menu is displayed only when the user moves the mouse pointer over the parent menu that contains a dynamic sub menu.

GridView (Data control)

GridView is a control used to display data in tables on a web page. It displays data in both rows and columns, where each column represents a field, and each row represents a record.

GridView Control Syntax:

```
<asp:GridView ID="GridControl" runat="server">
</asp:GridView>
```

Standard Control:**Label control**

Label control and the Literal control are used to display text in a page. Literal control only supports text property, but the Label control has a number of formatting properties.

TextBox control

The TextBox control is frequently used and one of the most important control. It is used to collect information from a user. It is an input control which is used to input the data. The TextBox control contains an important property called TextMode. By using this property you can set textbox as

Button control

Button control postbacks the web page to webserver, when user clicks the button. A Button control can be used as a submit button (default) or a command button.

CheckBox Control

A CheckBox control is used to select a single or multiple options from the available choices. For example a person can select more than one cities for travelling.

RadioButton Control

Radio Button control is used, when you want to select only one option from the available choices. RadioButton control works in a group. There may be more than one group of radio button. You can select only one RadioButton control from particular radio button group.

CODE :

Code to add book :

```
protected void btnadd_Click(object sender, EventArgs e)
{
    if (FileUpload1.HasFile)
    {

        FileUpload1.SaveAs(Server.MapPath("~/Book/") + FileUpload1.FileName);

        int a = 0;
        for (int i = 0; i < CheckBoxList1.Items.Count; i++)
        {
            if (CheckBoxList1.Items[i].Selected == true)
            {
                BookAdapter.Insert(txtbname.Text, txtauthor.Text, txtdetail.Text,
Convert.ToDouble(txtprice.Text), drppublication.SelectedItem.Text, CheckBoxList1.Items[i].Text,
Convert.ToInt32(txtqnt.Text), Convert.ToInt32(txtqnt.Text), 0, "~/Book/" +
FileUpload1.FileName.ToString());
                a = 1;
            }
        }
        if (a == 0)
        {
            lblmsg.Text = "Please, Select branch";
        }
        else
        {
            lblmsg.Text = "Book Added";
            txtauthor.Text = "";
            txtbname.Text = "";
            txtdetail.Text = "";
            txtprice.Text = "";
            txtqnt.Text = "";
            drppublication.SelectedIndex = 0;
            txtbname.Focus();
        }
    }
    else
    {
        lblmsg.Text = "Please, Select Book Photo";
    }
}
```

Code to display :

```
protected void Button11_Click(object sender, EventArgs e)
{
    if (drpbranch.SelectedIndex == 0)
    {
        lblmsg.Text = "Select Branch first";
        MultiView1.ActiveViewIndex = -1;
    }
    else
    {
        SDT = SAdapter.Select_By_Branch(drpbranch.SelectedItem.Text);
        GridView1.DataSource = SDT;
        GridView1.DataBind();
        MultiView1.ActiveViewIndex = 0;
        lbl.Text = GridView1.Rows.Count.ToString() + " Student Found";
    }
}

protected void btnsearch_Click(object sender, EventArgs e)
{
    if (txtsearch.Text == "")
    {
        lblmsg.Text = "Enter student name";
    }
    else
    {
        SDT = SAdapter.Select_For_SEARCH(txtsearch.Text + "%");
        GridView1.DataSource = SDT;
        GridView1.DataBind();
        MultiView1.ActiveViewIndex = 0;
        lbl.Text = GridView1.Rows.Count.ToString() + " Student Found";
    }
}

protected void GridView1_RowCommand(object sender, GridViewCommandEventArgs e)
{
    MultiView1.ActiveViewIndex = 1;
    SDT = SAdapter.Select_By_SID(Convert.ToInt32(e.CommandArgument.ToString()));
    lblid.Text = SDT.Rows[0]["sid"].ToString();
    lblname.Text = SDT.Rows[0]["studentname"].ToString();
    lblbranch.Text = SDT.Rows[0]["branchname"].ToString();
    lblmobile.Text = SDT.Rows[0]["mobile"].ToString();
    lbladdress.Text = SDT.Rows[0]["address"].ToString();
    lblcity.Text = SDT.Rows[0]["city"].ToString();
    lbpin.Text = SDT.Rows[0]["pincode"].ToString();
    DateTime dobb = Convert.ToDateTime(SDT.Rows[0]["dob"].ToString());
    lbdob.Text = dobb.GetDateTimeFormats()[7].ToString();
    lblemai.Text = SDT.Rows[0]["email"].ToString();
    lbpasstext.Text = SDT.Rows[0]["password"].ToString();
}

protected void Button12_Click(object sender, EventArgs e)
{
    MultiView1.ActiveViewIndex = 0;
}
```

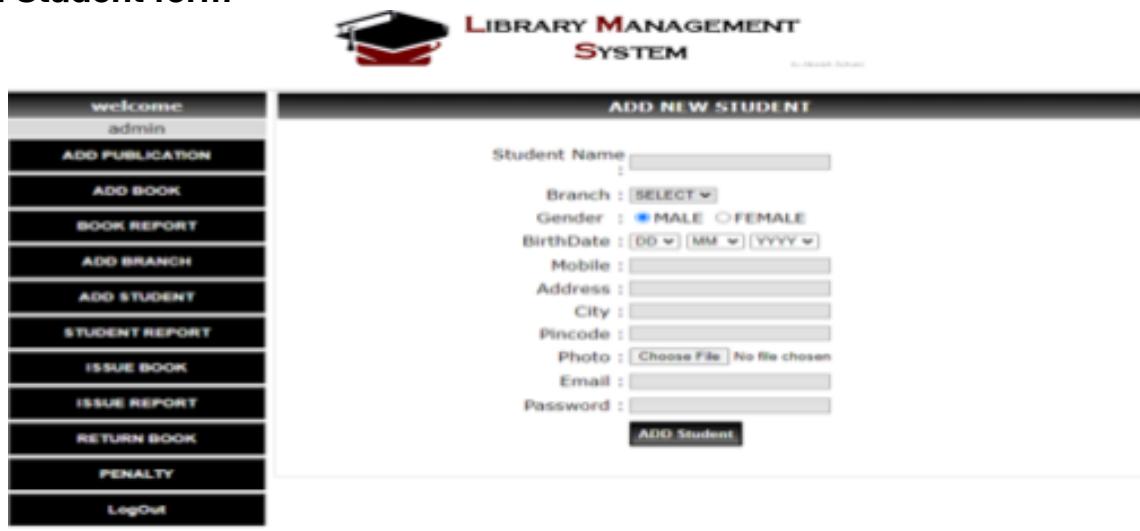
SCREEN-SHOTS :

Login form



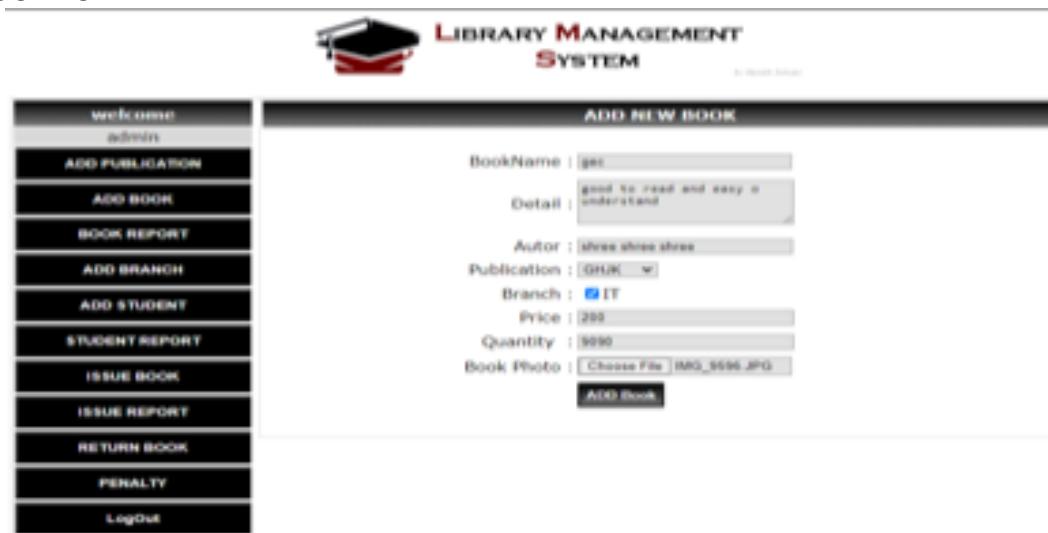
The login form for the Library Management System features a logo at the top left depicting a graduation cap and two pencils forming a house-like shape. The title "LIBRARY MANAGEMENT SYSTEM" is centered above the login area. The login area itself has a dark header bar with "Login Area" and "Forgot Credential". Below this are fields for "UserName" (admin), "Password", and a radio button for "Librarian" or "Student". A "Login" button is at the bottom.

Add Student form



The add student form is titled "ADD NEW STUDENT". It includes fields for "Student Name", "Branch" (with a dropdown menu showing "SELECT"), "Gender" (radio buttons for MALE and FEMALE), "BirthDate" (dropdown menus for DD, MM, and YYYY), "Mobile", "Address", "City", "Pincode", "Photo" (a file upload field showing "Choose File No file chosen"), "Email", and "Password". On the left, a sidebar menu lists various administrative functions: welcome, admin, ADD PUBLICATION, ADD BOOK, BOOK REPORT, ADD BRANCH, ADD STUDENT, STUDENT REPORT, ISSUE BOOK, ISSUE REPORT, RETURN BOOK, PENALTY, and LogOut.

Add Book form



The add book form is titled "ADD NEW BOOK". It includes fields for "BookName" (set to "good to read and easy to understand"), "Detail" (a text area containing "shree shree shree"), "Autor" (shree shree shree), "Publication" (dropdown menu showing "GURU"), "Branch" (radio button for "IT"), "Price" (299), "Quantity" (999), and "Book Photo" (a file upload field showing "Choose File IM0_9596.JPG"). On the left, a sidebar menu lists various administrative functions: welcome, admin, ADD PUBLICATION, ADD BOOK, BOOK REPORT, ADD BRANCH, ADD STUDENT, STUDENT REPORT, ISSUE BOOK, ISSUE REPORT, RETURN BOOK, PENALTY, and LogOut.

Display table:

The screenshot displays a web-based library management system. On the left, a vertical menu bar lists various administrative functions: Welcome, admin, ADD PUBLICATION, ADD BOOK, BOOK REPORT, ADD BRANCH, ADD STUDENT, STUDENT REPORT, ISSUE BOOK, ISSUE REPORT, RETURN BOOK, PENALTY, and LogOut. The main content area is titled "STUDENT REPORT". It features two search inputs: "Select Branch : IT" with a dropdown arrow and a "View" button, and "Student Name : atharva parke" with a "View" button. Below these inputs, a message "4 Student Found" is displayed above a table. The table has columns for "StudentName", "Branch", "Mobile", and "View". The data in the table is as follows:

StudentName	Branch	Mobile	View
OMKAR GAWDE	IT	09284778581	View
Dattaraj Pernulkar	IT	09284778581	View
atharva parke	IT	09284778585	View
atharva parke	IT	09284778585	View

CONCLUSION :

A Three-tier application using PHP and Database was successfully implemented.