**CODE:**

HTML

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>StudyTogether | Virtual Study Groups</title>

  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css">

  <link rel="stylesheet" href="style.css">

</head>

<body>

  <!-- Header with Navigation -->

  <header class="main-header">

    <div class="container">

      <h1 class="logo"><i class="fas fa-book-open"></i> StudyTogether</h1>

      <nav>

        <ul class="nav-links">

          <li><a href="#home"><i class="fas fa-home"></i> Home</a></li>

          <li><a href="#groups"><i class="fas fa-users"></i> Groups</a></li>

          <li><a href="#notes"><i class="fas fa-notes"></i> Shared Notes</a></li>

          <li><a href="#login" class="btn-login"><i class="fas fa-sign-in-alt"></i> Login</a></li>

        </ul>

      </nav>

    </div>

  </header>

  <!-- Hero Section -->

  <section class="hero" id="home">

    <div class="container">

      <div class="hero-content">

        <h2>Study Smarter, Together</h2>

        <p>Join virtual study groups, share notes, and collaborate in real-time with students worldwide.</p>

        <a href="#groups" class="btn-primary">Explore Groups</a>

      </div>

      <div class="hero-image">

        <img src="https://via.placeholder.com/500x300" alt="Students studying together">

      </div>

    </div>

  </section>

  <!-- Study Groups Section -->

  <section class="study-groups" id="groups">

    <div class="container">

      <h2 class="section-title">Available Study Groups</h2>

      <div class="group-filters">

        <input type="text" placeholder="Search groups..." class="search-input">

        <select class="subject-filter">

          <option value="">All Subjects</option>

          <option value="math">Mathematics</option>

          <option value="science">Science</option>

          <option value="history">History</option>

          <option value="programming">Programming</option>

        </select>

      </div>

      <div class="groups-grid" id="groups-list">

        <!-- Groups will be added here by JavaScript -->

      </div>

      <button class="btn-secondary" id="load-more">Load More Groups</button>

    </div>

  </section>

  <!-- Create Group Section -->

  <section class="create-group">

    <div class="container">

      <h2 class="section-title">Create Your Own Study Group</h2>

      <form id="group-form" class="group-form">

        <div class="form-group">

          <label for="group-name"><i class="fas fa-tag"></i> Group Name</label>

          <input type="text" id="group-name" placeholder="e.g., Advanced Calculus Study" required>

          <span class="error-message" id="name-error"></span>

        </div>

        <div class="form-group">

          <label for="group-subject"><i class="fas fa-graduation-cap"></i> Subject</label>

          <select id="group-subject" required>

            <option value="">Select a subject</option>

            <option value="math">Mathematics</option>

            <option value="science">Science</option>

            <option value="history">History</option>

            <option value="programming">Programming</option>

            <option value="other">Other</option>

          </select>

          <span class="error-message" id="subject-error"></span>

        </div>

        <div class="form-group">

          <label for="group-desc"><i class="fas fa-info-circle"></i> Description</label>

          <textarea id="group-desc" placeholder="What will your group focus on?" required></textarea>

          <span class="error-message" id="desc-error"></span>

        </div>

        <button type="submit" class="btn-primary"><i class="fas fa-plus-circle"></i> Create Group</button>

      </form>

    </div>

  </section>

  <!-- Shared Notes Preview -->

  <section class="shared-notes" id="notes">

    <div class="container">

      <h2 class="section-title">Shared Notes</h2>

      <div class="notes-container">

        <div class="note-editor">

          <h3>Collaborative Notes</h3>

          <textarea id="shared-note" placeholder="Start typing here... Everyone in your group will see these notes in real-time!"></textarea>

          <div class="note-actions">

            <button class="btn-small"><i class="fas fa-save"></i> Save</button>

            <button class="btn-small"><i class="fas fa-share-alt"></i> Share</button>

          </div>

        </div>

        <div class="note-preview">

          <h3>Note Preview</h3>

          <div class="note-content" id="note-preview">

            Your notes will appear here...

          </div>

        </div>

      </div>

    </div>

  </section>

  <!-- Footer -->

  <footer class="main-footer">

    <div class="container">

      <p>&copy; 2023 StudyTogether. All rights reserved.</p>

      <div class="social-links">

        <a href="#"><i class="fab fa-facebook"></i></a>

        <a href="#"><i class="fab fa-twitter"></i></a>

        <a href="#"><i class="fab fa-instagram"></i></a>

      </div>

    </div>

  </footer>

  <script src="script.js"></script>

</body>

</html>

CSS

/\* Global Styles \*/

:root {

    --primary-color: #4a6fa5;

    --secondary-color: #6b8cae;

    --accent-color: #ff7e5f;

    --light-color: #f8f9fa;

    --dark-color: #343a40;

    --success-color: #28a745;

    --error-color: #dc3545;

  }

  \* {

    margin: 0;

    padding: 0;

    box-sizing: border-box;

  }

  body {

    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;

    line-height: 1.6;

    color: #333;

    background-color: #f5f7fa;

  }

  .container {

    width: 90%;

    max-width: 1200px;

    margin: 0 auto;

    padding: 0 20px;

  }

  /\* Typography \*/

  h1, h2, h3, h4 {

    margin-bottom: 1rem;

    line-height: 1.2;

  }

  p {

    margin-bottom: 1rem;

  }

  /\* Buttons \*/

  .btn {

    display: inline-block;

    padding: 10px 20px;

    border: none;

    border-radius: 5px;

    cursor: pointer;

    text-decoration: none;

    font-weight: 500;

    transition: all 0.3s ease;

  }

  .btn-primary {

    background-color: var(--primary-color);

    color: white;

  }

  .btn-primary:hover {

    background-color: #3a5a8a;

    transform: translateY(-2px);

  }

  .btn-secondary {

    background-color: var(--secondary-color);

    color: white;

  }

  .btn-secondary:hover {

    background-color: #5a7c9e;

  }

  .btn-small {

    padding: 6px 12px;

    font-size: 0.9rem;

  }

  .btn-login {

    background-color: var(--accent-color);

    color: white;

    padding: 8px 16px;

    border-radius: 5px;

  }

  /\* Header Styles \*/

  .main-header {

    background-color: white;

    box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);

    position: sticky;

    top: 0;

    z-index: 100;

    padding: 15px 0;

  }

  .main-header .container {

    display: flex;

    justify-content: space-between;

    align-items: center;

  }

  .logo {

    font-size: 1.8rem;

    color: var(--primary-color);

  }

  .logo i {

    margin-right: 10px;

  }

  .nav-links {

    display: flex;

    list-style: none;

  }

  .nav-links li {

    margin-left: 20px;

  }

  .nav-links a {

    text-decoration: none;

    color: var(--dark-color);

    font-weight: 500;

    transition: color 0.3s;

  }

  .nav-links a:hover {

    color: var(--primary-color);

  }

  .nav-links i {

    margin-right: 5px;

  }

  /\* Hero Section \*/

  .hero {

    padding: 60px 0;

    background: linear-gradient(135deg, #e0f7fa 0%, #b2ebf2 100%);

  }

  .hero .container {

    display: flex;

    align-items: center;

    justify-content: space-between;

  }

  .hero-content {

    flex: 1;

    padding-right: 40px;

  }

  .hero-content h2 {

    font-size: 2.5rem;

    color: var(--dark-color);

    margin-bottom: 20px;

  }

  .hero-content p {

    font-size: 1.1rem;

    margin-bottom: 30px;

    color: #555;

  }

  .hero-image {

    flex: 1;

  }

  .hero-image img {

    width: 100%;

    border-radius: 10px;

    box-shadow: 0 5px 15px rgba(0, 0, 0, 0.1);

  }

  /\* Study Groups Section \*/

  .section-title {

    text-align: center;

    margin-bottom: 40px;

    font-size: 2rem;

    color: var(--primary-color);

    position: relative;

  }

  .section-title::after {

    content: '';

    display: block;

    width: 80px;

    height: 4px;

    background-color: var(--accent-color);

    margin: 15px auto 0;

  }

  .study-groups {

    padding: 60px 0;

    background-color: white;

  }

  .group-filters {

    display: flex;

    justify-content: center;

    margin-bottom: 30px;

    gap: 15px;

  }

  .search-input, .subject-filter {

    padding: 10px 15px;

    border: 1px solid #ddd;

    border-radius: 5px;

    font-size: 1rem;

  }

  .search-input {

    width: 300px;

  }

  .groups-grid {

    display: grid;

    grid-template-columns: repeat(auto-fill, minmax(300px, 1fr));

    gap: 25px;

    margin-bottom: 30px;

  }

  .group-card {

    background-color: white;

    border-radius: 8px;

    overflow: hidden;

    box-shadow: 0 3px 10px rgba(0, 0, 0, 0.1);

    transition: transform 0.3s, box-shadow 0.3s;

  }

  .group-card:hover {

    transform: translateY(-5px);

    box-shadow: 0 5px 15px rgba(0, 0, 0, 0.2);

  }

  .group-header {

    background-color: var(--primary-color);

    color: white;

    padding: 15px;

  }

  .group-header h3 {

    margin-bottom: 5px;

  }

  .group-subject {

    font-size: 0.9rem;

    opacity: 0.9;

  }

  .group-body {

    padding: 20px;

  }

  .group-meta {

    display: flex;

    justify-content: space-between;

    margin-bottom: 15px;

    font-size: 0.9rem;

    color: #666;

  }

  .group-meta span {

    display: flex;

    align-items: center;

  }

  .group-meta i {

    margin-right: 5px;

  }

  .group-desc {

    margin-bottom: 20px;

    color: #555;

  }

  .group-actions {

    display: flex;

    justify-content: space-between;

  }

  #load-more {

    display: block;

    margin: 0 auto;

  }

  /\* Create Group Section \*/

  .create-group {

    padding: 60px 0;

    background-color: #f8f9fa;

  }

  .group-form {

    max-width: 600px;

    margin: 0 auto;

    background-color: white;

    padding: 30px;

    border-radius: 8px;

    box-shadow: 0 3px 10px rgba(0, 0, 0, 0.1);

  }

  .form-group {

    margin-bottom: 20px;

  }

  .form-group label {

    display: block;

    margin-bottom: 8px;

    font-weight: 500;

    color: var(--dark-color);

  }

  .form-group i {

    margin-right: 8px;

    color: var(--primary-color);

  }

  .form-group input,

  .form-group select,

  .form-group textarea {

    width: 100%;

    padding: 10px 15px;

    border: 1px solid #ddd;

    border-radius: 5px;

    font-size: 1rem;

  }

  .form-group textarea {

    min-height: 120px;

    resize: vertical;

  }

  .error-message {

    color: var(--error-color);

    font-size: 0.85rem;

    margin-top: 5px;

    display: none;

  }

  /\* Shared Notes Section \*/

  .shared-notes {

    padding: 60px 0;

    background-color: white;

  }

  .notes-container {

    display: grid;

    grid-template-columns: 1fr 1fr;

    gap: 30px;

  }

  .note-editor, .note-preview {

    background-color: #f8f9fa;

    border-radius: 8px;

    padding: 20px;

    box-shadow: 0 3px 10px rgba(0, 0, 0, 0.1);

  }

  .note-editor h3, .note-preview h3 {

    color: var(--primary-color);

    margin-bottom: 15px;

    padding-bottom: 10px;

    border-bottom: 1px solid #ddd;

  }

  #shared-note {

    width: 100%;

    min-height: 300px;

    padding: 15px;

    border: 1px solid #ddd;

    border-radius: 5px;

    font-family: inherit;

    margin-bottom: 15px;

  }

  .note-actions {

    display: flex;

    gap: 10px;

  }

  .note-content {

    min-height: 300px;

    padding: 15px;

    background-color: white;

    border: 1px solid #ddd;

    border-radius: 5px;

    white-space: pre-wrap;

  }

  /\* Footer \*/

  .main-footer {

    background-color: var(--dark-color);

    color: white;

    padding: 30px 0;

    text-align: center;

  }

  .main-footer .container {

    display: flex;

    flex-direction: column;

    align-items: center;

  }

  .social-links {

    margin-top: 15px;

  }

  .social-links a {

    color: white;

    margin: 0 10px;

    font-size: 1.2rem;

    transition: color 0.3s;

  }

  .social-links a:hover {

    color: var(--accent-color);

  }

  /\* Responsive Design \*/

  @media (max-width: 768px) {

    .hero .container {

      flex-direction: column;

    }

    .hero-content {

      padding-right: 0;

      margin-bottom: 30px;

      text-align: center;

    }

    .notes-container {

      grid-template-columns: 1fr;

    }

    .nav-links {

      display: none; /\* Would implement mobile menu in real project \*/

    }

  }

JAVASCRIPT

// Sample data - in a real app, this would come from a database

const sampleGroups = [

    {

      id: 1,

      name: "Advanced Calculus",

      subject: "math",

      description: "For students taking advanced calculus courses. We meet weekly to solve problems together.",

      members: 12,

      activeMembers: 8,

      created: "2023-05-15"

    },

    {

      id: 2,

      name: "Computer Science Fundamentals",

      subject: "programming",

      description: "Learning data structures and algorithms together. All skill levels welcome!",

      members: 24,

      activeMembers: 15,

      created: "2023-04-20"

    },

    {

      id: 3,

      name: "World History Study",

      subject: "history",

      description: "Exploring world history from ancient civilizations to modern times.",

      members: 8,

      activeMembers: 5,

      created: "2023-06-01"

    },

    {

      id: 4,

      name: "Biology Study Group",

      subject: "science",

      description: "Focusing on cellular biology and genetics. Lab partners welcome!",

      members: 16,

      activeMembers: 10,

      created: "2023-05-28"

    }

  ];

  // DOM Elements

  const groupsList = document.getElementById('groups-list');

  const groupForm = document.getElementById('group-form');

  const searchInput = document.querySelector('.search-input');

  const subjectFilter = document.querySelector('.subject-filter');

  const loadMoreBtn = document.getElementById('load-more');

  const sharedNote = document.getElementById('shared-note');

  const notePreview = document.getElementById('note-preview');

  // Display all groups on page load

  document.addEventListener('DOMContentLoaded', function() {

    displayGroups(sampleGroups);

    // Set up real-time note preview

    sharedNote.addEventListener('input', function() {

      notePreview.textContent = this.value;

    });

  });

  // Display groups function

  function displayGroups(groups) {

    // Clear existing groups

    groupsList.innerHTML = '';

    // Add each group to the page

    groups.forEach(group => {

      const groupCard = document.createElement('div');

      groupCard.className = 'group-card';

      groupCard.innerHTML = `

        <div class="group-header">

          <h3>${group.name}</h3>

          <p class="group-subject">${getSubjectName(group.subject)}</p>

        </div>

        <div class="group-body">

          <p class="group-desc">${group.description}</p>

          <div class="group-meta">

            <span><i class="fas fa-users"></i> ${group.members} members</span>

            <span><i class="fas fa-clock"></i> ${formatDate(group.created)}</span>

          </div>

          <div class="group-actions">

            <button class="btn-small btn-secondary"><i class="fas fa-info-circle"></i> Details</button>

            <button class="btn-small btn-primary join-group" data-id="${group.id}"><i class="fas fa-user-plus"></i> Join</button>

          </div>

        </div>

      `;

      groupsList.appendChild(groupCard);

    });

    // Add event listeners to join buttons

    document.querySelectorAll('.join-group').forEach(button => {

      button.addEventListener('click', function() {

        const groupId = parseInt(this.getAttribute('data-id'));

        joinGroup(groupId);

      });

    });

  }

  // Join group function

  function joinGroup(groupId) {

    const group = sampleGroups.find(g => g.id === groupId);

    if (group) {

      group.members += 1;

      // Update the button

      const joinBtn = document.querySelector(`.join-group[data-id="${groupId}"]`);

      joinBtn.innerHTML = '<i class="fas fa-check"></i> Joined';

      joinBtn.classList.remove('btn-primary');

      joinBtn.classList.add('btn-secondary');

      joinBtn.disabled = true;

      // Show success message

      alert(`You've joined the ${group.name} group!`);

    }

  }

  // Create new group form handling

  groupForm.addEventListener('submit', function(e) {

    e.preventDefault();

    // Get form values

    const name = document.getElementById('group-name').value.trim();

    const subject = document.getElementById('group-subject').value;

    const description = document.getElementById('group-desc').value.trim();

    // Validate inputs

    let isValid = true;

    // Name validation

    if (name.length < 5) {

      document.getElementById('name-error').textContent = 'Group name must be at least 5 characters';

      document.getElementById('name-error').style.display = 'block';

      isValid = false;

    } else {

      document.getElementById('name-error').style.display = 'none';

    }

    // Subject validation

    if (!subject) {

      document.getElementById('subject-error').textContent = 'Please select a subject';

      document.getElementById('subject-error').style.display = 'block';

      isValid = false;

    } else {

      document.getElementById('subject-error').style.display = 'none';

    }

    // Description validation

    if (description.length < 20) {

      document.getElementById('desc-error').textContent = 'Description must be at least 20 characters';

      document.getElementById('desc-error').style.display = 'block';

      isValid = false;

    } else {

      document.getElementById('desc-error').style.display = 'none';

    }

    // If all valid, create new group

    if (isValid) {

      const newGroup = {

        id: sampleGroups.length + 1,

        name,

        subject,

        description,

        members: 1,

        activeMembers: 1,

        created: new Date().toISOString().split('T')[0]

      };

      sampleGroups.unshift(newGroup); // Add to beginning of array

      displayGroups(sampleGroups); // Refresh display

      // Reset form

      this.reset();

      // Show success message

      alert(`Your "${name}" study group has been created successfully!`);

      // Scroll to the top to see the new group

      window.scrollTo({

        top: document.querySelector('.study-groups').offsetTop - 20,

        behavior: 'smooth'

      });

    }

  });

  // Search and filter functionality

  searchInput.addEventListener('input', filterGroups);

  subjectFilter.addEventListener('change', filterGroups);

  function filterGroups() {

    const searchTerm = searchInput.value.toLowerCase();

    const subjectFilterValue = subjectFilter.value;

    const filteredGroups = sampleGroups.filter(group => {

      const matchesSearch = group.name.toLowerCase().includes(searchTerm) ||

                           group.description.toLowerCase().includes(searchTerm);

      const matchesSubject = !subjectFilterValue || group.subject === subjectFilterValue;

      return matchesSearch && matchesSubject;

    });

    displayGroups(filteredGroups);

  }

  // Load more groups (simulated)

  loadMoreBtn.addEventListener('click', function() {

    // In a real app, this would fetch more data from a server

    alert("In a complete app, this would load more groups from the server!");

  });

  // Helper functions

  function getSubjectName(subjectKey) {

    const subjects = {

      math: "Mathematics",

      science: "Science",

      history: "History",

      programming: "Programming"

    };

    return subjects[subjectKey] || subjectKey;

  }

  function formatDate(dateString) {

    const options = { year: 'numeric', month: 'short', day: 'numeric' };

    return new Date(dateString).toLocaleDateString(undefined, options);

  }

**WEBSITE:**

**https://682b5f2401550a80c4c470b7--melodious-churros-ea66b7.netlify.app/**