

# Front-End UI/UX Mini Project Event Calendar

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- **Institution**: Christ University
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#### **Abstract**

- This project is a simple static event calendar website created for the UI and UX
   Design course at Christ University.
- It allows the user to add a new event in the calendar, specify the date and time, provide details of the event, view all the events, and navigate between months.
- Seamless navigation with previous/next month buttons.
- Organize events by type (Personal, Work, Meeting, Reminder, Other)
- There is **no backend.**

## **Objectives**

- Design a user-friendly interface using modern UI principles
- Develop a fully responsive layout using only HTML and CSS
- Implement structured HTML5 semantic elements
- Apply CSS styling for branding, layout, and responsive behavior
- Use of JavaScript to ensure proper event handling.
- Ensure accessibility and readability across devices using Bootstrap.

## 4. Scope of the Project

- Focused on front-end design only
- Intended for desktop, tablet, and mobile viewports
- Used only open-source tools and pure code (no libraries)



## **Tools & Technologies Used**

Tool/Technology	Purpose
HTML5	Markup and content structure
CSS3	Styling and layout management
VS Code	Code editor
Chrome DevTools	Testing and debugging
JavaScript	Event Handling and calendar logic
jQuery	DOM Manipulation and Event Handling
Bootstrap	Responsive grid system and components

## **HTML Structure Overview**

• Used semantic tags: <header>, <nav>, <main>, <section>, <footer>

## **CSS Styling Strategy**

- Used external CSS file (style.css)
- Organized with comments and sections
- Techniques used:
  - o Flexbox and Grid for layout
  - Media Queries for responsiveness
  - o CSS Variables for theme customization
  - o Hover effects and transitions
  - o Mobile-first design approach



## **Key Features**

Feature	Description
Responsive Design	Adapts seamlessly to all screen sizes
Smooth Navigation	Fixed top nav with anchor links
Project Cards	Flex-based layout with hover effects
Accessible Fonts & Colors	High contrast and readable typography
Local Storage	Events persist between browser sessions
<b>Event List View</b>	See all events in a organized list format

# **Challenges Faced & Solutions**

Challenge	Solution
Overlapping elements on small screens	Used media queries to stack elements
Difficulty aligning items using float	Shifted to Flexbox and Grid
Typography scaling issue	Used relative units (em/rem) instead of px

## Outcome

- Achieved a clean, consistent, and visually engaging front-end layout
- All key components function as intended using HTML, CSS, JavaScript, Bootstrap and jQuery.
- Learned about layout responsiveness and UI hierarchy in depth
- Mobile-optimized with adjusted grid sizes and touch-friendly interfaces
- Clean, minimal, and easy-to-read layout
- Styled using CSS for better visual appeal
- Collapsible navigation and modal dialogs
- Fully static works by just opening in a browser



## **Future Enhancements**

- Integrate animations or transitions
- Theme toggler (light/dark mode)

## **Sample Code**

```
2 3 4 5 6 7 8 9 10 11 12 13 14 115 16 17 18 19 20 21 12 22 23 24 25 6 27 7 28 9 30 40 14 12 13 14 45 46 47 48 49 50 51 52 53 55 56 66 67 75 58 59 60 61 62 63 64 66 66 67 71
                                                           ad>

deta charset="UTF-8">

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

ditlo=Event Calendar</titlo>

dink href="https://cdnjs.cloudflare.com/ajax/libs/bootstrap/5.3.0/css/bootstrap.min.css" rel="stylesheet">

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

dink href="https://cdnjs
                                                                                       .calendar-container {
    background: ■rgba(255, 255, 255, 0.95);
    border-radius: 20px;
    box-shadow: 0 20px 40px □rgba(0, 0, 0, 0.1);
    backdrop-filter: blur(10px);
    margin: 20px 0;
                                                                                     .calendar-header {
    background: linear-gradient(45deg, ■#Afacfe 0%, ■#000f2fe 100%);
    color: ■white;
    border-radius: 20px 20px 0 0;
    padding: 30px;
    text-align: center;
                                                                                          .calendar-nav {
    display: flex;
    justify-content: space-between;
    align-items: center;
    margin-bottom: 20px;
                                                                                                             v-btn {
background: □rgba(255, 255, 255, 0.2);
                                                                                                            border: none;

color: ■white;

width: 50px;

height: 50px;

border-radius: 50%;
                                                                                                             cursor: pointer;
transition: all 0.3s ease;
                                                                                                             display: flex;
align-items: center;
justify-content: center;
                                                                                            .nav-btn:hover {
   background: □rgba(255, 255, 255, 0.3);
   transform: scale(1.1);
                                                                                        .calendar-grid {
display: grid;
grid-template-columns: repeat(7, 1fr);
                                                                                                             gap: 1px;
background: ■#e9ecef;
                                                                                                             margin: 20px;
border-radius: 10px;
overflow: hidden;
                                                                                          .day-header {
| background: □ #495057;
| color: ■ white;
| padding: 15px 5px;
| text-align: center;
```



```
font-weight: bold;
font-size: 0.9em;
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                                        .calendar-day (
background: ■white;
padding: lopx 5px;
min-height: lobpx;
border: none;
cursor: pointer;
transition: all 0.3s ease;
position: relative;
display: flex;
flex-direction: column;
                                           calendar-day:hover {
   background: ■#f8f9fa;
   transform: translateY(-2px);
   box-shadow: 0 5px 15px □rgba(0, 0, 0, 0.1);
                                          calendar-day.other-month {
  background: ■#f8f9fa;
  color: ■#6c757d;
                                          calendar-day.today {
  background: lanear-gradient(45deg, ■#ff6b6b, ■#ffa500);
  color: ■white;
  font-weight: bold;
                                                y-number {
font-weight: bold;
margin-bottom: 5px;
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                                                ment {
    background: linear-gradient(45deg, ■mafacfe, ■moof2fe);
    color: ■white;
    padding: 2px 6px;
    margin: 1px 6;
    border-radius: 19px;
    font-size: 0.75em;
    cursor: pointer;
    transition: all 0.2s ease;
    white-space: nowrap;
    overflow: hidden;
    text-overflow: ellipsis;
                                                ent:hover {
transform: scale(1.05);
box-shadow: 0 2px 8px □rgba(0, 0, 0, 0.2);
                                                 dal-content {
border: none;
border-radius: 20px;
overflow: hidden;
                                                dal-header {
    background: linear-gradient(45deg, ■#Afacfe 0%, ■#00f2fe 100%);
    color: ■white;
    border: none;
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                                      .form-control, .form-select {
    border-radius: 10px;
    border: 2px solid ■#e9ecef;
    transition: all 0.3s ease;
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                                        .btn-primary {
background: linear-gradient(45deg, ■#4facfe, ■#00f2fe);
                                               border: none;
border-radius: 10px;
padding: 10px 30px;
transition: all 0.3s ease;
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                                        .btn-primary:hover {
                                              transform: translateY(-2px);
box-shadow: 0 5px 15px □rgba(79, 172, 254, 0.4);
                                       .btn-danger {
   background: linear-gradient(45deg, ■#ff6b6b, ■#ff5722);
   border: none;
   border-radius: 10px;
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                                                       .calendar-grid {
    margin: 10px;
                                                      .calendar-day {
    min-height: 80px;
    padding: 5px 2px;
                                                      .day-header {
    padding: 10px 2px;
    font-size: 0.8em;
                                                              ent {
font-size: 0.65em;
                                                              padding: 1px 4px;
                                                       nav-btn {
                                                             width: 40px;
height: 40px;
                                 241
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                                                                                              <h2 id="currentMonth" class="mb-0"></h2>

</div>
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                                                                                    <div class="calendar-grid" id="calendarGrid">
| <!-- Calendar will be generated here -->
</div>
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<
                                                                 <div class="modal-body":
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                                                                                      <div class="mb-3">
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```



```
<option value="reminder">Reminder</
<option value="other">Other</option</pre>
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                                   <div class="mb-3">
                                      314
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                                               <strong>Repeat every year</strong>
<small class="text-muted d-block">Perfect for birthdays, anniversaries, and holidays</small>
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                         </div>
           <!-- Date Picker Modal -->
<div class="modal fade" id="datePickerModal" tabindex="-1">
<div class="modal fade" id="datePickerModal" tabindex="-1">
<div class="modal-content">

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                         v class= modal-content">
<iiv class="modal-tent">
<iiv class="modal-tent">
<i class="modal-tent">
<i class="fas fa-calendar-altime-2"×/i)Go to Date </hi>
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                             <button type="button" class="btn-close btn-close-white" data-bs-dismiss="modal"></button>
                        \langle i \ class = "fas \ fa-list \ me-2"></i>All Events
                            <button type="button" class="btn-close btn-close-white" data-bs-dismiss="modal"></button>
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           <!-- Event Details Modal -->
<div class="modal fade" id="eventDetailsModal" tabindex="-1">
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                             <button type="button" class="btn-close btn-close-white" data-bs-dismiss="modal"></button>
                         </div>
                         <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Close</button>
                     </div>
           <script src="https://cdnjs.cloudflare.com/ajax/libs/bootstrap/5.3.0/js/bootstrap.bundle.min.js"></script><script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.7.0/jquery.min.js"></script>
               class EventCalendar {
   constructor() {
                        this.currentDate = new Date();
this.events = this.loadEvents();
this.selectedEventId = null;
```



```
.monthNames = [
'January', 'February', 'March', 'April', 'May', 'June',
'July', 'August', 'September', 'October', 'November', 'December'
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                                                  this.dayNames = ['Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat'];
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                                       init() {
    this.renderCalendar();
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                                                this.bindEvents();
this.setDefaultDate();
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                                        loadEvents() {
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                                                const saved = localStorage.getItem('calendarEvents');
return saved ? JSON.parse(saved) : {};
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                                        saveEvents() {
    localStorage.setItem('calendarEvents', JSON.stringify(this.events));
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                                      bindEvents() {
    $('#prevMonth').click(() => this.previousMonth());
    $('#nextMonth').click(() => this.nextMonth());
    $('#saveEvent').click(() => this.saveEvent());
    $('#goToDate').click(() => this.goToSelectedDate());
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                                                 // Use event delegation for delete button since it's in a modal
$(document).on('click', '#deleteEvent'), () => this.deleteEvent());
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                                                 // set today's date as default for new events
$('#addEventModal').on('shown.bs.modal', () => {
    const today = new Date();
    $('#eventDate').val(today.toIsOString().split('T')[0]);
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                                                  // Update events list when modal is shown
$('#eventsListModal').on('shown.bs.modal', () => {
    this.renderEventsList();
                                                  // clear selected event when event details modal is hidden
$('meventDetailsModal').on('hidden.bs.modal', () => {
    this.selectedEventId = null;
 450 451 453 454 455 456 457 458 459 460 471 472 473 474 475 488 489 480 481 492 493 496 497
                                                  // Refresh calendar when event list modal is hidden
$('#eventsListModal').on('hidden.bs.modal', () => {
    this.renderCalendar();
                                          setDefaultDate() {
                                                Derautbate() {
const today = new Date();
const year = today.getFullYear();
const month = String(today.getMonth() + 1).padStart(2, '0');
const day = String(today.getDate()).padStart(2, '0');
const todayStr = '$(year)-$(month).-$(day)';
$('#gotoDate').val(todayStr);
                                         previousMontn() {
    this.currentDate.setMonth(this.currentDate.getMonth() - 1);
    this.renderCalendar();
                                          nextMonth() {
                                                this.currentDate.setMonth(this.currentDate.getMonth() + 1);
                                                this.renderCalendar();
                                          goToSelectedDate() {
                                                 const selectedDate = $('#gotoDate').val();
                                                  if (selectedDate) {
    this.currentDate = new Date(selectedDate);
                                                         this.renderCalendar();
$('#datePickerModal').modal('hide');
                                        getEventsForDate(dateStr) {
    const events = [];
                                                // Parse the date string to avoid timezone issues const [year, month, day] = dateStr.split('-').map(num => parseInt(num)); const targetWonth = month; // Already 1-based from our date string const targetDay = day;
                                                // Add direct events for this date
if (this.events[datestr]) {
    this.events[datestr].forEach((event, index) => {
        events.push({
                                                                          event: event,
originalDate: dateStr,
```



```
originalIndex: index
                                                });
// Add yearly recurring events
                                    Object.keys(this.events).forEach(originalDate => {
                                          const [origYear, origMonth, origDay] = originalDate.split('-').map(num => parseInt(num));
                                          // Check if month and day match (but different year)
if (origMonth === targetMonth && origDay === targetDay && originalDate !== dateStr) {
    this.events[originalDate].forEach((event, index) => {
                                                      if (event.recurYearly) {
    events.push({
                                                                   event: event,
originalDate: originalDate,
                                                                   originalIndex: index, isRecurring: true
                                                             i);
                                                 });
                                    });
                             renderCalendar() {
    const year = this.currentDate.getFullYear();
    const month = this.currentDate.getMonth();
                                   $('#currentMonth').text(this.monthNames[month]);
$('#currentYear').text(year);
                                  const firstDay = new Date(year, month, 1);
const lastDay = new Date(year, month + 1, 0);
const startDate = new Date(firstDay);
startDate.setDate(startDate.getDate() - firstDay.getDay());
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                                   this.dayNames.forEach(day => {
   html += `<div class="day-header">${day}</div>`;
                                   });
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                                               const isCurrentMonth = currentDate.getMonth() === this.currentDate.getMonth();
const isToday = this.isToday(currentDate);
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                                                let dayClass = 'calendar-day';
if (!isCurrentMonth) dayClass += ' other-month';
if (isToday) dayClass += ' today';
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const dayEvents = this.getEventsForDate(dateStr);
let eventsHtml = '';
                                                      const event = eventData.event;
const event = eventData.event;
const eventKey = eventData.originalDate + '_' + eventData.originalIndex;
eventSHtml += `<div class="event" onclick="calendar.showEventDetails('${eventData.originalDate}', ${eventData.originalIndex})" title="${event.originalDate}', ${eventData.originalIndex}}"</pre>
                                                 html +=
                                                         currentDate.setDate(currentDate.getDate() + 1);
                                    $('#calendarGrid').html(html);
                              isToday(date) {
  const today = new Date();
  return date.toDateString() === today.toDateString();
                               selectDate(dateStr) {
    $('#eventDate').val(dateStr);
    $('#addEventModal').modal('show');
```



```
eEvent() {
   const title = $('#eventTitle').val().trim();
   const date = $('meventDate').val();
   const time = $('#eventTime').val();
   const description = $('#eventDate').val(),trim();
   const description = $('#eventDate(print).val(),trim();
   const description = $('#eventLategory').val();
   const recurYearly = $('#recurYearly').prop('checked');
}
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                                  if (!title || !date) {
    alert('please fill in the required fields (Title and Date)');
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                                       id: Date.now() + Math.random(),
                                       date,
time,
description,
                                       category,
recurYearly
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                                 if (!this.events[date]) {
   this.events[date] = [];
                                 this.events[date].push(event);\\ this.events[date].sort((a, b) \Rightarrow (a.time || ``).localeCompare(b.time || ``));\\
                                  this.saveEvents();
                                tmis.savevewnts;
this.renderCalendar();
$('#eventForm')[0].reset();
$('#addEventModal').modal('hide');
const message = recurVearly? 'Yearly recurring event saved successfully!': 'Event saved successfully!';
this.showToast(message, 'success');
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                           showEventDetails(dateStr, eventIndex) {
    if (!this.events[dateStr] || !this.events[dateStr][eventIndex]) {
        this.showToast('Event not found!', 'error');
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                                const event = this.events[dateStr][eventIndex];
this.selectedEventId = { date: dateStr, index: eventIndex };
                                      st formattedDate = new Date(dateStr).toLocaleDateString('en-US', {
                                     weekday: 'long',
year: 'numeric',
month: 'long',
day: 'numeric'
                                 const timeStr = event.time ? new Date(`1970-01-01T${event.time}`).toLocaleTimeString('en-US', {
                                 hour: '2-digit',
minute: '2-digit'
}) : 'All day';
                                const recurringBadge = event.recurYearly ? '<span class="badge bg-success ms-2"><i class="fas fa-redo-alt me-1"></i>Yearly</span>' : '';
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                                       <i class="fas fa-calendar text-muted me-2"></i>
<strong>Date:</strong> ${formattedDate}
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                                             </div>
                                            ${event.description ?
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                                 $('#eventDetailsModal').modal('show');
```

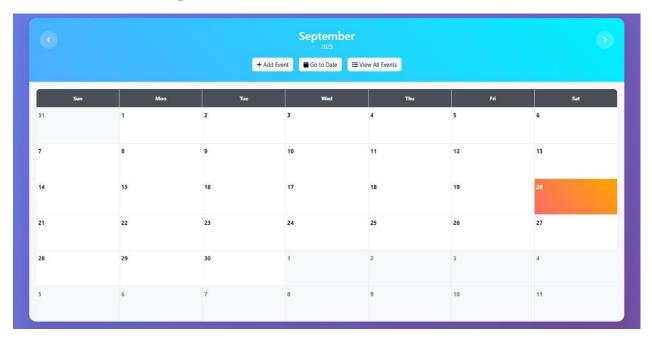


```
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                                           Event() {
  (!this.selectedEventId) {
    this.showToast('No event selected for deletion', 'error');
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                                       const { date, index } = this.selectedEventId;
if (!this.events[date] || !this.events[date][index]) {
    this.showToast('Event not found!', 'error');
    $('#eventDetailsNodal').modal('hide');
    return;
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                                       let confirmMessage = 'Are you sure you want to delete this event?';
if (event.recurYearly) {
    confirmMessage = 'Are you sure you want to delete this yearly recurring event? This will remove it from all years.';
                                        if (confirm(confirmMessage)) {
                                                     this.events[date].splice(index, 1);
                                                     if (this.events[date].length === 0) {
   delete this.events[date];
                                                     this.saveEvents();
$('#eventDetailsModal').modal('hide');
                                                      setTimeout() => {
    this.showToast('Event deleted successfully!', 'success');
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                                                     }, 300);
this.selectedEventId = null;
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                                                 catch (error) {
  console.error('Error deleting event:', error);
  this.showToast('Error deleting event!', 'error');
                                renderEventsList() {
                                      let html = '';
const allEvents = [];
object.keys(this.events).forEach(date => {
    this.events[date].forEach((event, index) => {
                                                   allEvents.push({
    event: event,
    date: date,
    index: index
                                      ));
allEvents.sort((a, b) => new Date(a.date) - new Date(b.date));
                                           (allEvents.length === 0) {
html = '<div class="text-center text-muted p-4"><i class="fas fa-calendar-times fa-3x mb-3"></i>>/i>No events found//div>';
                                             allEvents.forEach(eventData => {
                                                   const event = eventData.event;
const date = eventData.date;
                                                     const index = eventData.index;
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                                                     const formattedDate = new Date(date).toLocaleDateString('en-US', {
    weekday: 'long',
                                                            year: 'numeric',
month: 'long',
day: 'numeric'
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                                                      });
                                                     const timeStr = event.time ? new Date(`1970-01-01T${event.time}`).toLocaleTimeString('en-US', {
    hour: '2-digit',
    minute: '2-digit'
}) : 'All day';
                                                      const recurringBadge = event.recurYearly ? '<span class="badge bg-success ms-2"><i class="fas fa-redo-alt me-1"></i>Yearly</span>' : '';

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                                        $('#eventsList').html(html);
```



## **Screenshots of Final Output**



#### **Conclusion**

The calendar is fully functional and ready to use. Users can add events by clicking on any date, navigate between months, and manage their events with an intuitive interface that works seamlessly on both desktop and mobile devices.

## 12. References

• L&T LMS: https://learn.lntedutech.com/Landing/MyCourse