

EXP 3: Develop an admin dashboard with CSS Grid layout and dynamic theme switching.

Code:

```
<!DOCTYPE html>

<html lang="en" class=""> <!-- The class on the HTML element will be toggled for themes -->

<head>

  <meta charset="UTF-8">

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

  <title>Admin Dashboard</title>

  <!-- Tailwind CSS CDN -->

  <script src="https://cdn.tailwindcss.com"></script>

  <!-- Google Fonts: Inter -->

  <link rel="preconnect" href="https://fonts.googleapis.com">

  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>

  <link
href="https://fonts.googleapis.com/css2?family=Inter:wght@400;500;600;700&display=swap" rel="stylesheet">

  <!-- Icon Library -->

  <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@6.1.1/css/all.min.css">

  <style>

    /* Custom CSS for layout and theming */

    body {

      font-family: 'Inter', sans-serif;

    }

    /* CSS Variables for theming. Default is light mode. */

    :root {

      --bg-primary: #ffffff;
```

```

--bg-secondary: #f3f4f6; /* gray-100 */
--text-primary: #1f2937; /* gray-800 */
--text-secondary: #6b7280; /* gray-500 */
--border-color: #e5e7eb; /* gray-200 */
--accent-color: #4f46e5; /* indigo-600 */
}

/* Dark theme variables, applied when the 'dark' class is on the html element */
html.dark {
  --bg-primary: #1f2937; /* gray-800 */
  --bg-secondary: #374151; /* gray-700 */
  --text-primary: #f9fafb; /* gray-50 */
  --text-secondary: #d1d5db; /* gray-300 */
  --border-color: #4b5563; /* gray-600 */
  --accent-color: #818cf8; /* indigo-400 */
}

/* Applying variables to elements */
body {
  background-color: var(--bg-secondary);
  color: var(--text-primary);
  transition: background-color 0.3s, color 0.3s;
}

.dashboard-grid {
  display: grid;
  grid-template-columns: 250px 1fr; /* Sidebar and main content */
  grid-template-rows: auto 1fr; /* Header and content area */

```

```
grid-template-areas:

  "sidebar header"

  "sidebar main";

height: 100vh;

}
```

```
/* Mobile layout adjustments */
```

```
@media (max-width: 768px) {

  .dashboard-grid {

    grid-template-columns: 1fr;

    grid-template-rows: auto auto 1fr; /* Header, Sidebar, Main */

    grid-template-areas:

      "header"

      "sidebar"

      "main";

  }

  #sidebar {

    position: static;

    height: auto;

  }

}
```

```
#header { grid-area: header; background-color: var(--bg-primary); border-bottom: 1px
solid var(--border-color); }
```

```
#sidebar { grid-area: sidebar; background-color: var(--bg-primary); border-right: 1px
solid var(--border-color); }
```

```
#main-content { grid-area: main; overflow-y: auto; }
```

```
/* General card styling */
```

```

    .card {
        background-color: var(--bg-primary);
        border: 1px solid var(--border-color);
        transition: background-color 0.3s, border-color 0.3s;
    }
</style>
</head>
<body>
    <div class="dashboard-grid">
        <!-- Header -->
        <header id="header" class="p-4 flex justify-between items-center">
            <h1 class="text-xl font-bold">Dashboard</h1>
            <div class="flex items-center gap-4">
                <span class="text-sm font-medium" style="color: var(--text-secondary);">Admin
User</span>
                <!-- Theme Switcher -->
                <button id="theme-switcher" class="p-2 rounded-full focus:outline-none focus:ring-
2 focus:ring-offset-2" style="background-color: var(--bg-secondary); focus:ring-color: var(--
accent-color);">
                    <i id="theme-icon" class="fa-solid fa-moon text-lg" style="color: var(--text-
primary);"></i>
                </button>
            </div>
        </header>

        <!-- Sidebar -->
        <aside id="sidebar" class="p-4 flex flex-col gap-4">
            <nav>
                <ul class="space-y-2">

```

```
<li><a href="#" class="flex items-center gap-3 p-2 rounded-lg"
style="background-color: var(--bg-secondary); color: var(--accent-color);"><i class="fa-solid
fa-chart-pie w-6 text-center"></i> Overview</a></li>
```

```
<li><a href="#" class="flex items-center gap-3 p-2 rounded-lg hover:bg-gray-200
dark:hover:bg-gray-700"><i class="fa-solid fa-users w-6 text-center"></i> Users</a></li>
```

```
<li><a href="#" class="flex items-center gap-3 p-2 rounded-lg hover:bg-gray-200
dark:hover:bg-gray-700"><i class="fa-solid fa-box w-6 text-center"></i> Products</a></li>
```

```
<li><a href="#" class="flex items-center gap-3 p-2 rounded-lg hover:bg-gray-200
dark:hover:bg-gray-700"><i class="fa-solid fa-gear w-6 text-center"></i> Settings</a></li>
```

```
</ul>
```

```
</nav>
```

```
</aside>
```

```
<!-- Main Content -->
```

```
<main id="main-content" class="p-6">
```

```
<div class="grid grid-cols-1 md:grid-cols-2 lg:grid-cols-4 gap-6">
```

```
<!-- Stat Card 1 -->
```

```
<div class="card p-5 rounded-xl shadow">
```

```
<h3 class="font-semibold" style="color: var(--text-secondary);">Total Sales</h3>
```

```
<p class="text-3xl font-bold mt-1">$24,805</p>
```

```
</div>
```

```
<!-- Stat Card 2 -->
```

```
<div class="card p-5 rounded-xl shadow">
```

```
<h3 class="font-semibold" style="color: var(--text-secondary);">New Users</h3>
```

```
<p class="text-3xl font-bold mt-1">1,204</p>
```

```
</div>
```

```
<!-- Stat Card 3 -->
```

```
<div class="card p-5 rounded-xl shadow">
```

```
<h3 class="font-semibold" style="color: var(--text-secondary);">Orders
Pending</h3>
```

```
        <p class="text-3xl font-bold mt-1">82</p>
    </div>

    <!-- Stat Card 4 -->

    <div class="card p-5 rounded-xl shadow">

        <h3 class="font-semibold" style="color: var(--text-secondary);">Support
Tickets</h3>

        <p class="text-3xl font-bold mt-1">15</p>
    </div>

    <!-- Chart Card -->

    <div class="card p-5 rounded-xl shadow lg:col-span-2">

        <h3 class="font-semibold mb-4">Sales Over Time</h3>

        
    </div>

    <!-- Table Card -->

    <div class="card p-5 rounded-xl shadow lg:col-span-2">

        <h3 class="font-semibold mb-4">Recent Orders</h3>

        <div class="overflow-x-auto">

            <table class="w-full text-left">

                <thead>

                    <tr style="border-bottom: 1px solid var(--border-color);">

                        <th class="p-2">Order ID</th>

                        <th class="p-2">Customer</th>

                        <th class="p-2">Amount</th>

                    </tr>

                </thead>

                <tbody>
```

```
        <tr><td class="p-2">#1024</td><td class="p-2">John Doe</td><td
class="p-2">$129.00</td></tr>

        <tr><td class="p-2">#1025</td><td class="p-2">Jane Smith</td><td
class="p-2">$49.99</td></tr>

        <tr><td class="p-2">#1026</td><td class="p-2">Sam Wilson</td><td
class="p-2">$250.50</td></tr>

        </tbody>

    </table>

</div>

</div>

</div>

</main>

</div>
```

```
<script>
```

```
    // --- DOM Elements ---
```

```
    const themeSwitcher = document.getElementById('theme-switcher');
```

```
    const themeIcon = document.getElementById('theme-icon');
```

```
    const rootElement = document.documentElement; // The <html> element
```

```
    // --- Functions ---
```

```
    /**
```

```
     * Toggles the theme between light and dark.
```

```
     */
```

```
    function toggleTheme() {
```

```
        // Toggle the 'dark' class on the <html> element
```

```
        rootElement.classList.toggle('dark');
```

```

// Check if the dark theme is now active
const isDarkMode = rootElement.classList.contains('dark');

// Update the icon accordingly
if (isDarkMode) {
    themelcon.classList.remove('fa-moon');
    themelcon.classList.add('fa-sun');
} else {
    themelcon.classList.remove('fa-sun');
    themelcon.classList.add('fa-moon');
}

// Optional: Save the user's preference in localStorage
localStorage.setItem('theme', isDarkMode ? 'dark' : 'light');
}

/**
 * Checks for a saved theme in localStorage and applies it on load.
 */
function applyInitialTheme() {
    const savedTheme = localStorage.getItem('theme');
    if (savedTheme === 'dark') {
        rootElement.classList.add('dark');
        themelcon.classList.remove('fa-moon');
        themelcon.classList.add('fa-sun');
    }
}

```



```
// --- Event Listeners ---

themeSwitcher.addEventListener('click', toggleTheme);

// --- Initial Setup ---

applyInitialTheme();

</script>
</body>
</html>
```

OUTPUT :

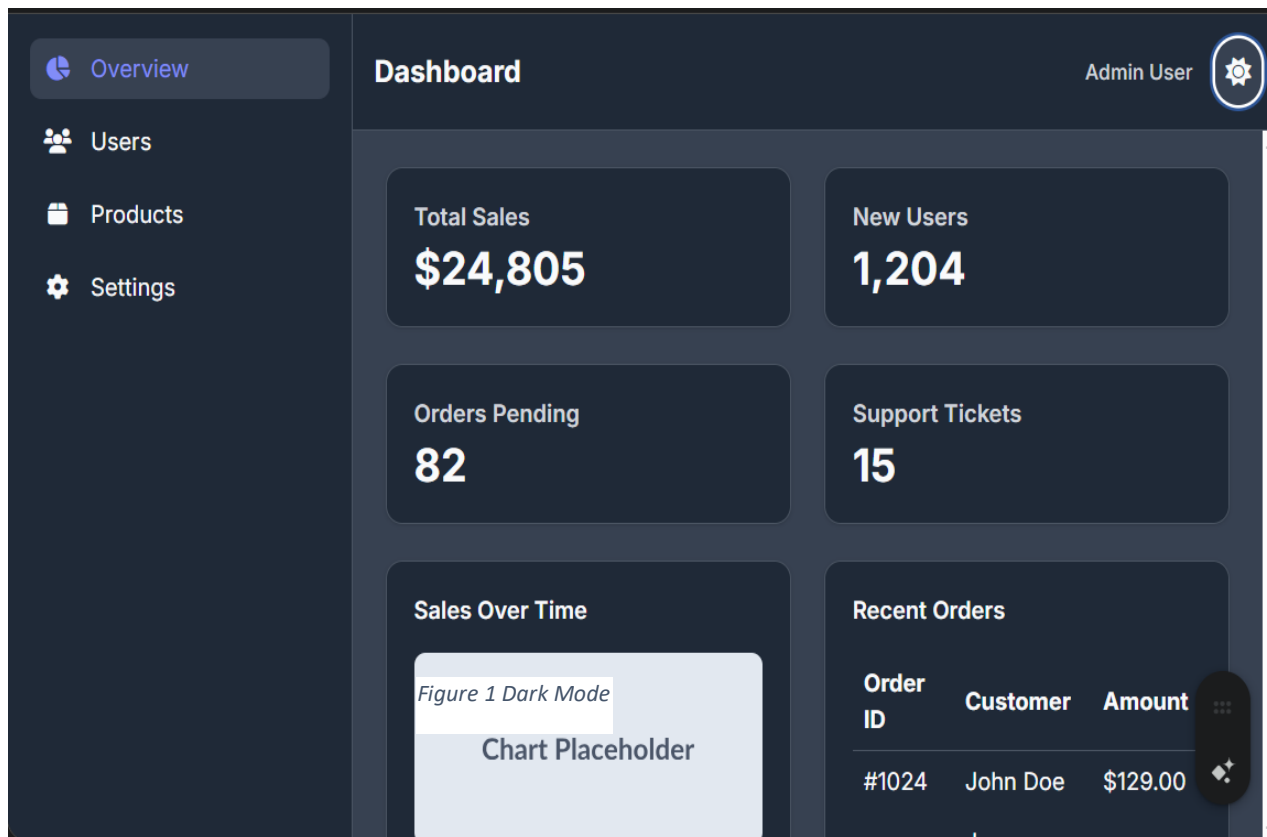


Figure 2 Dark Mode

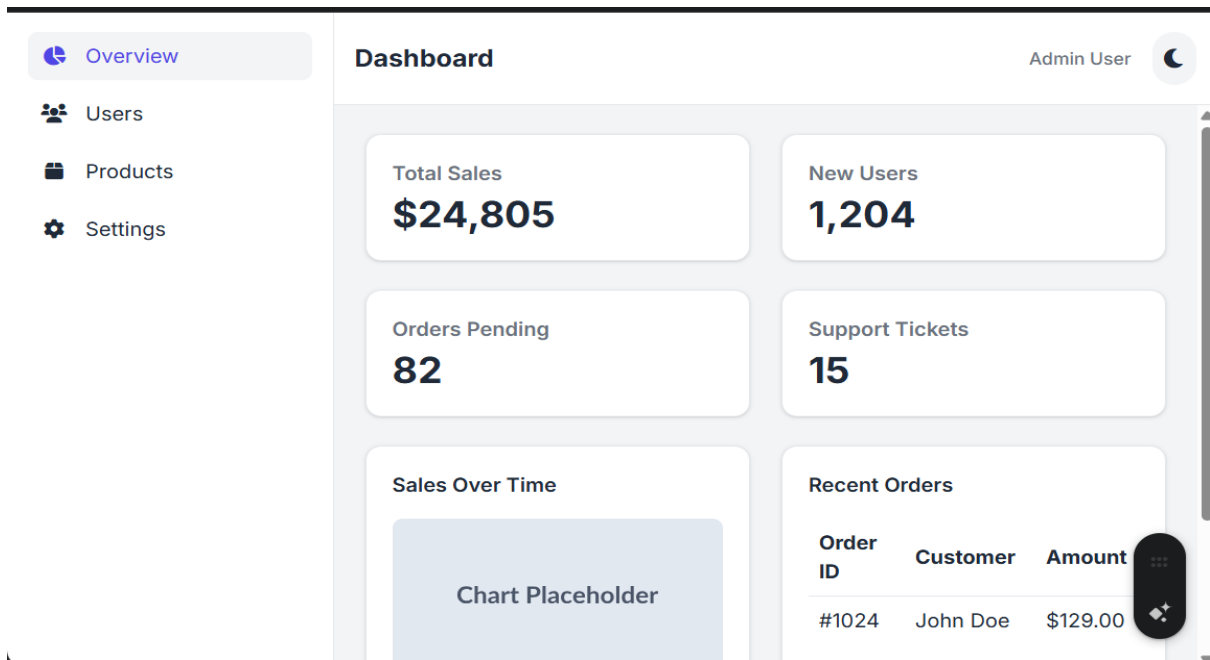


Figure 3 Light Mode