Experiment 2

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1. Aim: To build an admin dashboard with dynamic theming using CSS Grid and JavaScript.

2. Objective:

• Create grid-based layout

• Implement dark/light mode toggle

• Design responsive sidebar

• Add data visualization placeholders

• Persist theme preference using localStorage

3. Hardware/Software Requirements

Category	Requirements
Hardware	i5 CPU, 8GB RAM
Software	Chrome DevTools, JSON Server (mock API)

4. Code:

Code Implementation

HTML:

```
<div class="dashboard" data-theme="light">
  <aside class="sidebar">Sidebar Menu</aside>
  <main class="content">
   <div class="card">Dashboard Content</div>
  <button id="theme-toggle">Toggle Theme</button>
  </main>
  </div>
```

CSS:

```
:root {
 --bg-color: #ffffff;
 --text-color: #000000;
[data-theme="dark"] {
 --bg-color: #1a1a1a;
 --text-color: #f0f0f0;
.dashboard {
 display: grid;
 grid-template-columns: 250px 1fr;
 grid-template-areas: "sidebar content";
 background-color: var(--bg-color);
 color: var(--text-color);
 min-height: 100vh;
.sidebar {
 grid-area: sidebar;
 padding: 1rem;
 background-color: #ccc;
.content {
 grid-area: content;
 padding: 1rem;
@media (max-width: 768px) {
 .dashboard {
  grid-template-columns: 1fr;
  grid-template-areas:
   "sidebar"
   "content";
```

```
JavaScript:

const toggle = document.getElementById('theme-toggle');
const dashboard = document.querySelector('.dashboard');

toggle.addEventListener('click', () => {
  const newTheme = dashboard.dataset.theme ==== 'light' ? 'dark' : 'light';
  dashboard.dataset.theme = newTheme;
  localStorage.setItem('theme', newTheme);
});

window.addEventListener('DOMContentLoaded', () => {
  const savedTheme = localStorage.getItem('theme');
  if (savedTheme) {
    dashboard.dataset.theme = savedTheme;
  }
});
```

5. Output:

Sidebar Menu

Dashboard Content
Toggle Theme

Figure 1. Before Toggle



Figure 2. After Toggle