



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment 1

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Date of Performance: 23CSP-339

Subject Code: 23CSP-339

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:



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```
: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:



Figure 1. Before Toggle



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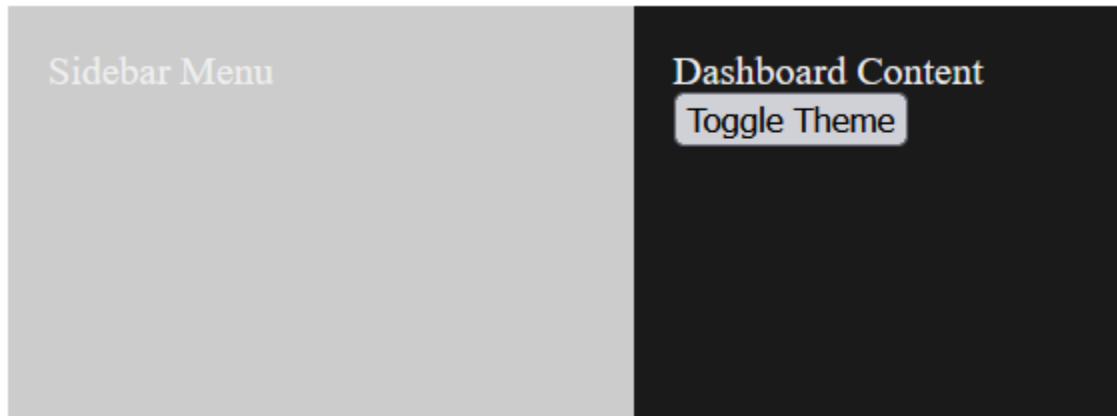


Figure 2. After Toggle