# Experiment: Admin Dashboard with CSS Grid Layout and Theme Switching

## Aim

To create an admin dashboard interface using HTML and CSS Grid Layout, with JavaScript-enabled theme switching between light and dark modes.

## Tools Used

- HTML
- CSS (Grid Layout, variables for themes)
- JavaScript (for theme toggle)
- Web Browser

## Procedure

- Create an HTML file with a dashboard structure containing a header, sidebar, and main content area.
- Use CSS Grid to arrange the layout into responsive sections.
- Define CSS variables for light and dark theme colors.
- Add a toggle button in the header to switch themes.
- Write JavaScript to toggle a 'dark-theme' class on the body.
- Use CSS to apply different color schemes based on the theme class.
- Test in a browser for responsiveness and theme switching.

## Code

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Admin Dashboard</title>
<style>
:root {
    --bg-color: #f4f6f8;
    --text-color: #222;
    --header-bg: #ffffff;
    --sidebar-bg: #ffffff;
    --card-bg: #ffffff;
    --accent-color: #4a90e2;
    --border-color: #e0e0e0;
}
```

```css
body.dark-theme {
    --bg-color: #121212;
    --text-color: #f4f4f4;
    --header-bg: #1e1e1e;
    --sidebar-bg: #1a1a1a;
    --card-bg: #1f1f1f;
    --accent-color: #64b5f6;
    --border-color: #2c2c2c;
}
body {
    margin: 0;
    font-family: 'Segoe UI', Tahoma, sans-serif;
    background: var(--bg-color);
    color: var(--text-color);
    display: grid;
    grid-template-rows: 60px 1fr;
    grid-template-columns: 220px 1fr;
    grid-template-areas:
        "header header"
        "sidebar main";
    height: 100vh;
    transition: background 0.3s ease, color 0.3s ease;
}
header {
    grid-area: header;
    background: var(--header-bg);
    display: flex;
    align-items: center;
    justify-content: space-between;
    padding: 0 20px;
    border-bottom: 1px solid var(--border-color);
    box-shadow: 0 2px 4px rgba(0,0,0,0.05);
}
header h1 {
    font-size: 1.2rem;
}
aside {
    grid-area: sidebar;
    background: var(--sidebar-bg);
    border-right: 1px solid var(--border-color);
    padding: 20px;
}
aside nav ul {
    list-style: none;
    padding: 0;
    margin: 0;
}
aside nav ul li {
    padding: 10px 0;
    cursor: pointer;
    transition: color 0.3s ease;
}
aside nav ul li:hover {
    color: var(--accent-color);
}
```

```css
main {
    grid-area: main;
    padding: 20px;
}
.card {
    background: var(--card-bg);
    border: 1px solid var(--border-color);
    border-radius: 8px;
    padding: 15px;
    margin-bottom: 20px;
    transition: background 0.3s ease, border-color 0.3s ease;
}
button.theme-toggle {
    padding: 6px 12px;
    border: none;
    background: var(--accent-color);
    color: #fff;
    border-radius: 4px;
    cursor: pointer;
    transition: background 0.3s ease;
}
button.theme-toggle:hover {
    background: #357ab8;
}
</style>
</head>
<body>
<header>
    <h1>Admin Dashboard</h1>
    <button class="theme-toggle">Toggle Theme</button>
</header>
<aside>
    <nav>
        <ul>
            <li>Dashboard</li>
            <li>Users</li>
            <li>Settings</li>
        </ul>
    </nav>
</aside>
<main>
    <h2>Welcome</h2>
    <p>This is your admin panel.</p>
</main>
<script>
document.querySelector('.theme-toggle').addEventListener('click', () => {
    document.body.classList.toggle('dark-theme');
});
</script>
</body>
</html>
```

## Result

The dashboard layout is arranged using CSS Grid and supports light/dark theme switching.

## Expected Output



**Admin Dashboard**                                                    [ Toggle Theme ]

Dashboard

Users              **Welcome**

Settings           This is your admin panel.



**Admin Dashboard**                                                    [ Toggle Theme ]

Dashboard

Users              **Welcome**

Settings           This is your admin panel.