

# Theme System Documentation

## 1. Implementation Details

### 1.1 Architecture Overview

The theme system is built using a modular architecture with the following key components:

src/

- ├─ @types/theme.ts      # Theme type definitions
- ├─ assets/styles/themes.css   # CSS variables for themes
- ├─ components/
- |    ├─ shared/ThemeSelector.tsx # Theme switching UI
- |    └─ template/ThemeProvider.tsx # Theme application logic
- ├─ configs/theme.config.ts    # Theme configurations
- ├─ store/themeStore.ts        # Theme state management
- └─ views/Home/themes/        # Theme-specific components

### 1.2 Core Components

#### 1.2.1 Theme State Management

// themeStore.ts

```
type ThemeState = Theme & {  
  specialty: 'default' | 'theme1' | 'theme2';  
}
```

```
const useThemeStore = create<ThemeState & ThemeAction>()(
```

```

persist(
  (set) => ({
    specialty: 'default',
    setSpecialty: (payload) => set(() => ({ specialty: payload })),
  }),
  { name: 'theme' }
)
)

```

### 1.2.2 Theme Provider

// ThemeProvider.tsx

```

const ThemeProvider: React.FC<{ children: React.ReactNode }> = ({ children }) => {
  const { specialty } = useThemeStore()

  useEffect(() => {
    document.documentElement.className = `theme-${specialty}`
  }, [specialty])

  return <>{children}</>
}

```

### 1.2.3 Theme Configuration

// theme.config.ts

```

export const themeConfigs = {
  base: {
    colors: { /* ... */ },

```

```
  typography: { /* ... */ },
  specialtyConfig: { /* ... */ }
},
theme1: { /* ... */ },
theme2: { /* ... */ }
}
```

### 1.3 Theme Application Flow

1. User selects a theme through ThemeSelector
2. ThemeStore updates the specialty state
3. ThemeProvider applies the new theme class
4. CSS variables update through themes.css
5. Components re-render with new theme styles

## 2. Theme Customization Guide

### 2.1 Creating a New Theme

#### Step 1: Define Theme Types

```
// @types/theme.ts
```

```
export interface Theme {
```

```
  id: string;
```

```
  name: string;
```

```
  colors: {
```

```
    primary: {
```

```
      main: string;
```

```
    light: string;
    dark: string;
  };
  // ... other color properties
};
typography: {
  fontFamily: string;
  // ... other typography properties
};
specialtyConfig: {
  // ... specialty-specific configurations
};
}
```

## Step 2: Add Theme Configuration

```
// configs/theme.config.ts
export const themeConfigs = {
  newTheme: {
    id: 'new-theme',
    name: 'New Theme',
    colors: {
      primary: {
        main: '#your-color',
        light: '#lighter-color',
        dark: '#darker-color'
      }
    }
  }
}
```

```
    },  
    typography: {  
      fontFamily: 'Your-Font'  
    },  
    specialtyConfig: {  
      // ... specialty configurations  
    }  
  }  
}
```

### Step 3: Update Theme Store

```
// store/themeStore.ts  
  
type ThemeState = Theme & {  
  specialty: 'default' | 'theme1' | 'theme2' | 'new-theme';  
}
```

## 2.2 Customizing Existing Themes

### 2.2.1 Color Customization

```
// src/views/Home/themes/[theme-name]/colors.ts  
  
export const colors = {  
  primary: {  
    main: '#your-color',  
    light: '#lighter-color',  
    dark: '#darker-color'  
  },  
},
```

```
background: {  
  default: '#background-color',  
  paper: '#paper-color'  
}  
}
```

### 2.2.2 Typography Customization

```
// src/views/Home/themes/[theme-name]/typography.ts  
export const typography = {  
  fontFamily: 'Your-Font',  
  h1: {  
    fontSize: '2.5rem',  
    fontWeight: 700  
  },  
  // ... other typography styles  
}
```

## 2.3 Theme-Specific Components

### 2.3.1 Creating Theme-Specific Components

```
// src/views/Home/themes/[theme-name]/components/YourComponent.tsx  
const YourComponent: React.FC = () => {  
  const { specialty } = useThemeStore();  
  
  return (  
    <div className={`theme-${specialty}-component`}>
```

```
    { /* Component content */ }  
  </div>  
);  
};
```

### 2.3.2 Styling Theme Components

```
/* src/assets/styles/themes.css */  
.theme-new-theme-component {  
  /* Theme-specific styles */  
}
```

## 2.4 Best Practices

### 1. Color Usage

- Use CSS variables for all theme colors
- Maintain consistent color naming across themes
- Ensure sufficient contrast for accessibility

### 2. Typography

- Define font families in theme configuration
- Use relative units for font sizes
- Maintain consistent typography scale

### 3. Component Styling

- Use theme-specific CSS classes
- Implement responsive design

- Consider dark/light mode variations

#### 4. Performance

- Minimize theme-specific CSS
- Use CSS variables efficiently
- Implement smooth theme transitions

### 2.5 Testing Themes

#### 1. Visual Testing

- Test all components with each theme
- Verify color contrast
- Check typography rendering

#### 2. Functionality Testing

- Test theme switching
- Verify theme persistence
- Check responsive behavior

#### 3. Accessibility Testing

- Verify color contrast ratios
- Check text readability



- Ensure keyboard navigation







