

# Sample UI Design System & Style Guide

## Purpose

This design system establishes consistent standards for designing and developing enterprise-grade web applications. It provides reusable UI principles, components, interaction patterns, accessibility guidelines, and visual standards to ensure a cohesive user experience across modules such as dashboards, project management, forms, file uploads, analytics, and administrative interfaces.

## Design Principles

- Clarity
- Consistency
- Efficiency
- Accessibility
- Scalability

## Color System

**Primary Palette:** It is used for the most prominent UI elements. In standard numerical naming systems, colors range from 50 (very light, almost white) to 900 (very dark, almost black). It is frequently used for readable body text or bold headings when placed over extremely light backgrounds.

Token	Color Code	Usage
Primary 900	#0B1F3A	Header background
Primary 700	#1D4E89	Primary actions
Primary 500	#2563EB	Active controls
Primary 300	#93C5FD	Hover states
Primary 100	#DBEAFF	Background highlights

## Neutral Palette

Low-saturation colors like whites, blacks, and various shades of gray (or beige / tans). These colors form the foundational backdrop of an interface.

Token	Color Code	Usage
Gray 900	#111827	Primary text
Gray 700	#374151	Secondary text
Gray 500	#6B7280	Placeholder text
Gray 300	#D1D5DB	Borders
Gray 100	#F3F4F6	Backgrounds
White	#FFFFFF	Cards and surfaces

## Semantic Colors

Semantic	Color Code	Usage
Success	#16A34A	Success alerts
Warning	#F59E0B	Warning alerts
Error	#DC2626	Validation errors
Info	#0EA5E9	Informational notices

## Chart Colors

Color	Hex Code
Blue	#2563EB
Green	#10B981
Orange	#F59E0B
Purple	#8B5CF6
Red	#EF4444
Cyan	#06B6D4

## Typography

### Font Families

Usage	Font
Primary UI Font	Inter
Alternate Font	Roboto
Monospace	DejaVu Sans Mono
Fallbacks	"Helvetica Neue", Arial, sans-serif

### Type Scale

Element	Size	Weight	Line Height
Page Title	32px	700	40px
Section Heading	24px	600	32px
Card Heading	20px	600	28px
Body Large	16px	400	24px
Body Standard	14px	400	22px

Element	Size	Weight	Line Height
Caption	12px	400	18px
Button Text	14px	600	20px

Element	Font	Size	Weight
H1	Inter	32px	Bold
H2	Inter	24px	Semi-Bold
H3	Inter	20px	Semi-Bold
Body	Inter	14px	Regular
Caption	Inter	12px	Regular

## Typography Rules

- Avoid more than 3 font sizes within a component
- Use sentence case for labels
- Use bold only for emphasis
- Maintain minimum 14px body text.

## Layout System

### Grid System

- 12-columns responsive grid
- Max content width: 1440px
- Gutter spacing - the empty gap between columns in a grid layout: 24px
- Minimum margin: 32px.

## Spacing Scale

<b>Token</b>	<b>Value</b>
XS	4px
SM	8px
MD	16px
LG	24px
XL	32px
XXL	48px

## Layout Regions

### Header

- Company Logo
- Application Name
- Fixed top navigation
- Global search
- Notifications
- User profile menu.

### Sidebar

- Collapsible navigation
- Module grouping
- Active state highlighting
- Icon + label format.

## Main Content

- Breadcrumb navigation
- Section headers
- Action toolbar
- Responsive content cards.

## Footer

- Environment info
- Version number
- Support links
- Copyright.

# Iconography

## Icon Standards

- Use outline icons for standard actions
- Use filled icons for selected states
- Maintain consistent stroke width
- Recommended library: Lucide or Material Symbols.

## Icon Sizes

<b>Usage</b>	<b>Size</b>
Small	16px
Standard	20px
Navigation	24px
Hero	32px

# Elevation and Shadows

Level	Shadow
Card	0 1px 3px rgba(0, 0, 0, 0.10)
Modal	0 10px 25px rgba(0,0,0,0.15)
Dropdown	0 4px 12px rgba(0,0,0,0.12)

# Border Radius

Element	Radius
Buttons	8px or 25% of height
Cards	12px or 10% of height
Inputs	8px or 25% of height
Modals	16px or 10% of height

# Navigation Design

## Primary Navigation

- Left-aligned logo
- Top-level navigation in sidebar
- Support nested expandable menu groups
- Persist selected module state.

## Breadcrumbs

Format: Home / Projects / Project Details / Reports

## Navigation States

- Default
- Hover
- Active
- Disabled
- Focused

## Component Library

### Buttons

**Primary:** most prominent, high-emphasis button (Submit, Save, Login) in a user interface which should use a bold, solid brand color to stand out from the background.

**Secondary:** buttons for alternative, less important actions such as Edit, Cancel, Go Back

**Tertiary:** low-emphasis user interface element used for secondary, optional, or miscellaneous actions such as Share, View details, Add to Favorite

**Danger:** Buttons such as Delete, Clear Data, Reset to Defaults, Close Workspace

**Ghost:** Usually a transparent, outline-style button called so because it lacks a solid background, making it blend into the interface.

### Variants

Variant	Usage	Background Color	Text Color	Boarder Radius
Primary	Main actions	#2563EB	White	50%
Secondary	Alternate actions	#6B7280	Black	50%

Variant	Usage	Background Color	Text Color	Boarder Radius
Tertiary	Low emphasis actions	Light gray	Black	25%
Danger	Destructive actions	#FF5429	Black	50%
Ghost	Minimal UI areas	White	Black	25%

## Button Sizes

Size	Height	Width
Small	32px	
Medium	40px	
Large	48px	

## States

- Default
- Hover
- Pressed
- Disabled
- Loading

## Form Controls

### Input Fields

- Label inline with input
- Helper text - mandatory
- Error state with inline message
- Clear focus indicator.

## Dropdowns

- Searchable for large datasets
- Keyboard navigable
- Multi-select support.

## Checkboxes and Radios

- Minimum click target: 40px
- Support keyboard interaction.

## Date Pickers

- Calendar overlay
- Range selection support
- Timezone awareness.

## Tables

### Table Standards

- Sticky headers
- Sortable columns
- Resizable columns
- Pagination support
- Export functionality.

### Row States

- Hover
- Selected
- Expanded
- Error

- Disabled

## Recommended Row Height

- Standard: 48px
- Compact: 40px

## Cards

### Card Structure

- Header
- Content area
- Footer actions
- Optional status indicator

### Card Usage

- Dashboard widgets
- Summary metrics
- Reports
- Project summaries

## Modals and Dialogues

### Modal Behavior

- Background overlay
- ESC key support
- Close button required
- Focus trapping enabled.

## Modal Sizes

This refers to the predefined dimensions of a modal window—an overlay that temporarily blocks interaction with the main page until the user takes action or dismisses it.

<b>Size</b>	<b>Width</b>	<b>Height</b>
Small	400px	
Medium	640px	
Large	960px	

## Notifications

### Types

- Success
- Error
- Warning
- Information.

### Placement

- Top-right toast notifications
- Inline alerts within forms.

### Duration

- Standard toast: 5 seconds
- Critical alerts remain until dismissed.

## File Upload Components

### Features

- Drag-and-drop upload
- Progress indicator
- File type validation
- Multi-file upload support
- Retry capability.

### Supported States

- Empty
- Drag active
- Uploading
- Completed
- Failed

## Data Visualization Standards

- Use consistent chart legends
- Limit charts to 5–7 series
- Prefer horizontal labels
- Ensure chart accessibility.

## Data Entry Patterns

### Form Layout

- Single-column preferred
- Group related fields
- Use progressive disclosure
- Minimize scrolling.

## Validation

- Validate on blur
- Show inline errors
- Preserve entered values
- Use descriptive messages.

Example: “Project name is required.”

## Responsive Design

### Breakpoints

Refers to specific screen widths at which a website or app’s layout automatically shifts to remain usable and visually appealing. They act as triggers that dictate how content adapts to different devices, such as smartphones.

<b>Device</b>	<b>Width</b>
Mobiles	< 768px
Tablets	768px - 1024px
Laptops, Desktops	1024px - 1440px
Large Display	> 1440px

### Responsive Behavior

- Collapse sidebar on tablet.
- Stack cards vertically on mobile.
- Use adaptive tables.
- Maintain touch-friendly targets.

# Accessibility Guidelines

## WCAG Standards

- Minimum contrast ratio: 4.5:1.
- Keyboard navigation support.
- Screen reader labels.
- Visible focus states.

## Keyboard Support

Action	Shortcut
Navigate fields	TAB
Reverse navigation	SHIFT + TAB
Submit form	ENTER
Close modal	ESC

## Accessibility Checklist

- Alt text for images
- ARIA labels
- Semantic HTML
- Error announcements.

# Motion and Animation

## Motion Principles

- Functional over decorative
- Fast and subtle
- Maintain context continuity

## Recommended Durations

Interaction	Duration
Hover	100ms
Dropdown	150ms
Modal	250ms
Page transition	300ms

## Empty, Loading and Error States

### Empty States

Include:

- Simple illustration
- Description
- Recommended next action

### Loading States

- Skeleton loaders preferred
- Avoid blocking full screen
- Show progress for long operations.

### Error Handling

- Explain issue clearly
- Provide recovery action
- Avoid technical jargon.

# Naming Conventions

## Component Naming

**Format:** ComponentNameVariantState

**Example:** PrimaryButtonLoading

## CSS Naming

Recommended:

- BEM
- Utility-first frameworks
- Design tokens

# Design Tokens

## Token Categories

- Color
- Typography
- Spacing
- Border radius
- Elevation
- Motion

## Example Token Structure

```
{
  "color": {
    "primary": "#2563EB",    "success": "#16A34A"
  },
  "spacing": {
    "md": "16px",    "lg": "24px"
  }
}
```

# Deliverables

## Design Assets

- Component library
- Design tokens
- Icon library
- Typography system

## Development Assets

- React component library
- CSS token package
- Documentation site
- Storybook examples

## Documentation

- UX guidelines
- Accessibility standards
- Interaction patterns
- Usage examples.

For enterprise web applications, this document is usually paired with:

1. **Wireframes** (low-fidelity layouts)
2. **Annotated screen mockups** (Figma/Adobe XD)
3. **Design system/style guide**
4. **Front-end component specification**
5. **User journey and navigation flow document**
6. **Accessibility compliance checklist**
7. **Responsive design specification.**