

Design Patterns: Examples in Slides and in Projects

Definition: Design patterns in interaction design are standardized, reusable solutions to common problems in user interface (UI) and user experience (UX) design. They help designers create consistent, efficient, and user-friendly systems.

Examples:

- **In Slides:**
 - Diagrams of common interaction patterns like the "Hamburger Menu" or "Infinite Scroll," illustrating how they work.
 - Flowcharts depicting user journeys, such as a login process with error handling.
- **In Projects:**
 - Implementing modal dialogs for confirmations in web applications.
 - Using progressive disclosure techniques to reveal information as needed to prevent overwhelming users.

Significance: Design patterns bridge the gap between theoretical concepts and practical implementation, ensuring scalability, efficiency, and a better user experience.

Navigation: Swiss Army Knife

Creational Patterns	Structural Patterns	Behavioral Patterns
Abstract Factory	Adapter	Chain of Responsibility
Builder	Bridge	Command
Factory Method	Composite	Interpreter
Prototype	Decorator	Iterator
Singleton	Facade	Mediator
	Flyweight	Memento
	Proxy	Observer
		State
		Strategy
		Template Method
		Visitor

Definition: A highly versatile navigation system that offers multiple tools and options in one interface.

Examples:

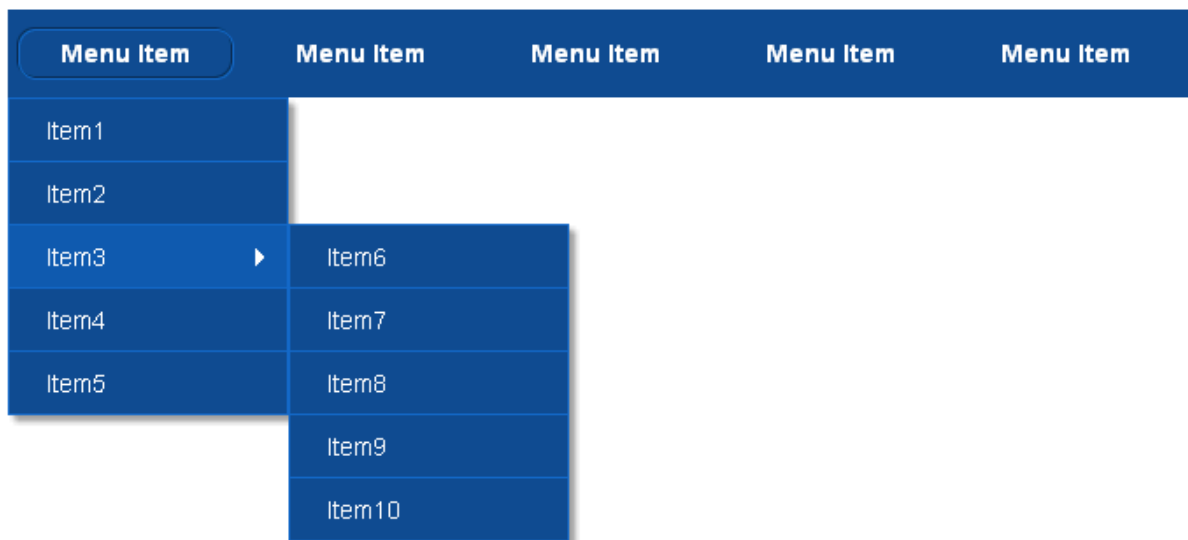
- A mobile app menu that combines search functionality, quick links, settings, and help options.
- A dashboard interface with customizable widgets for navigation and data visualization.

Pros and Cons:

- **Pros:** Efficient and reduces clutter by integrating multiple functionalities.
- **Cons:** Can overwhelm users if not well-organized or if too many options are presented at once.

Relevance in Interaction Design: The Swiss Army Knife approach allows users to access diverse functionalities seamlessly but requires careful prioritization of features to avoid cognitive overload.

Navigation: Top Horizontal Navigation



Definition: A horizontal bar at the top of a webpage or application that provides access to primary sections.

Examples:

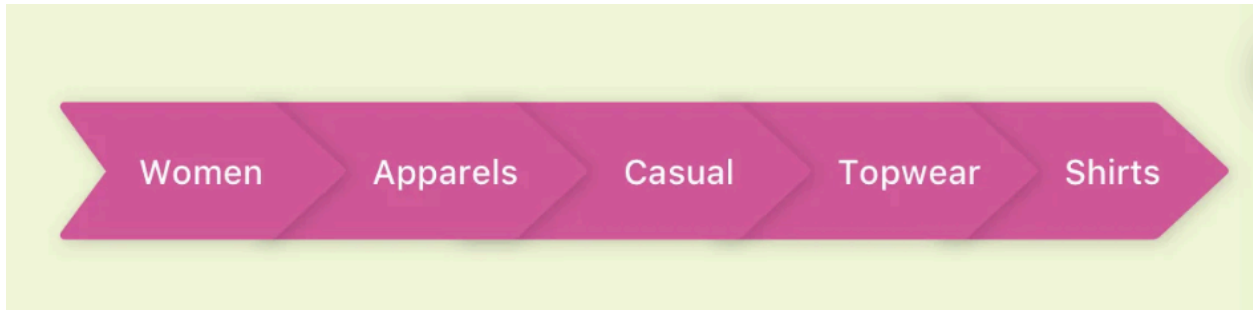
- E-commerce websites like Amazon with a horizontal bar listing categories such as “Home,” “Shop,” and “Cart.”
- Corporate websites with menus like “About Us,” “Services,” and “Contact.”

Benefits:

- **Familiarity:** Users are accustomed to this layout, improving usability.
- **Visibility:** Key options are immediately accessible.

Relevance in Interaction Design: Top horizontal navigation is a staple of intuitive UI, especially for systems requiring quick access to frequently used features.

Navigation: A Breadcrumb



Definition: A secondary navigation aid that shows users their location within a website's hierarchy.

Examples:

- An online store displaying: "Home > Electronics > Laptops."
- A content management system (CMS) showing: "Dashboard > Posts > Edit Post."

Benefits:

- Provides context and reduces the feeling of being lost.
- Simplifies navigation back to previous sections.

Relevance in Interaction Design: Breadcrumbs enhance usability by supporting users in navigating complex systems and hierarchies.

Carousel: Sideshow

Carousel / Slideshow

The Carousel is a slideshow for cycling through elements:



Definition: A rotating display of images or content, often used on homepages to highlight promotions or key features.

Examples:

- Netflix showcasing recommended shows and movies.
- News websites rotating top headlines.

Pros and Cons:

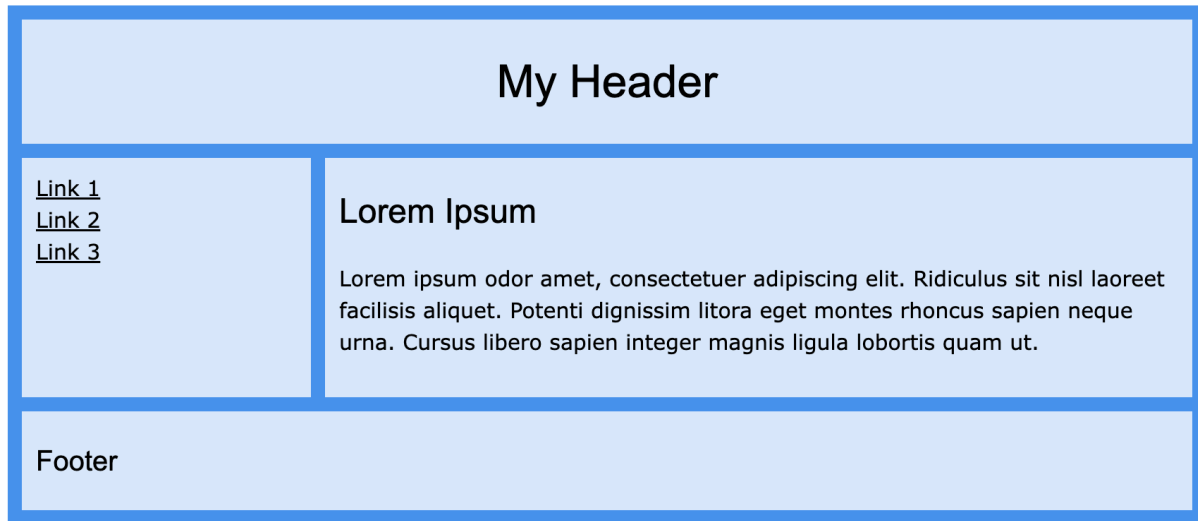
- **Pros:** Efficient for showcasing multiple items in limited space.
- **Cons:** May be ignored by users if the rotation is too fast or intrusive.

Relevance in Interaction Design: Carousels are useful for drawing attention but should be carefully designed to avoid usability issues, such as poor accessibility or low engagement.

CSS Grid Layout Module

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Definition: A design structure that organizes content into rows and columns, creating alignment and visual consistency.

Examples:

- Pinterest's masonry grid layout for displaying images.
- Portfolio websites presenting projects in a structured grid format.

Benefits:




- Ensures a clean and balanced appearance.
- Adapts well to responsive design for different screen sizes.

Relevance in Interaction Design: Grid patterns provide structure, making content easier to scan and navigate, enhancing overall user experience.

Button Effect: Hover

Learn how to animate buttons using CSS.

Animated Buttons

Example Add a "pressed" effect on click:  Try it Yourself »	Example Add an arrow on hover:  Try it Yourself »	Example Add a "ripple" effect on click:  Try it Yourself »
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Go to our [CSS Buttons Tutorial](#) to learn more about how to style buttons.

Definition: A dynamic effect that changes a button's appearance when a user hovers over it, providing visual feedback.

Examples:

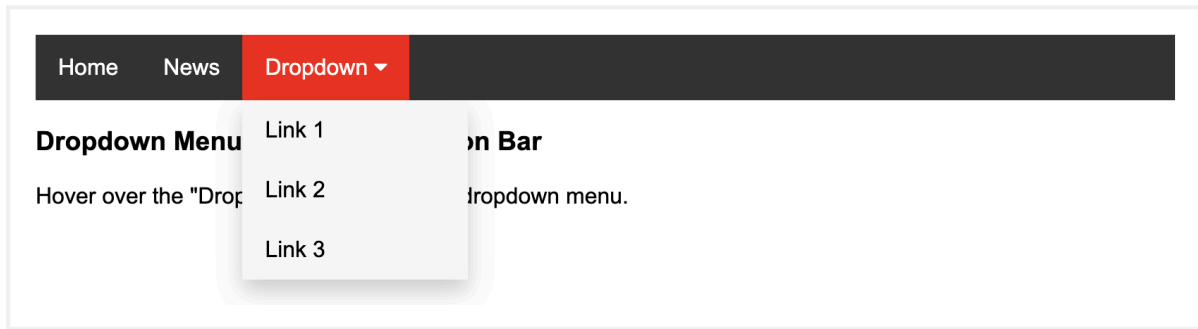
- Buttons that change color, size, or include animations when hovered over.
- Social media "Like" buttons that display additional options on hover.

Importance:

- Enhances interactivity.
- Provides immediate feedback to the user.

Relevance in Interaction Design: Hover effects make interfaces feel responsive and engaging, creating a more interactive experience for users.

Horizontal Dropdown Menu



Try it Yourself »

Definition: A horizontal navigation bar where submenus drop down when a user hovers or clicks on an item.

Examples:

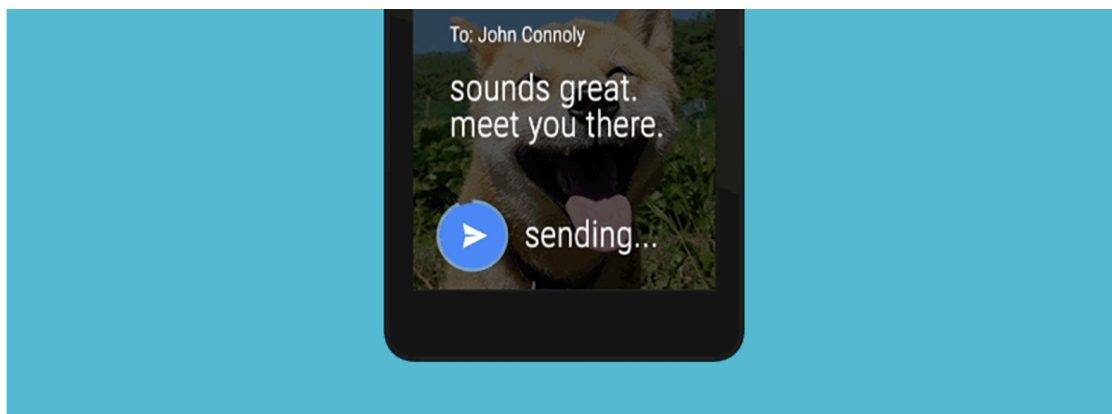
- Websites with categories expanding into subcategories, like “Electronics > Phones > Accessories.”
- Online platforms with multi-level menus, such as corporate intranet sites.

Benefits:

- Optimizes space while maintaining access to detailed navigation.
- Provides a clean and organized user experience.

Relevance in Interaction Design: Horizontal dropdown menus balance simplicity and depth, making them ideal for systems with hierarchical structures.

Microinteraction: With Very Clear Feedback



Definition: Small, focused interactions that provide immediate, clear feedback to the user.

Examples:

- A heart icon that animates when clicked, showing the action was successful.
- A loading spinner that displays progress during data retrieval.

Significance:

- Keeps users informed and engaged.
- Reduces confusion by clearly indicating the result of user actions.

Relevance in Interaction Design: Microinteractions enhance the sense of control and understanding, critical for a positive user experience.

Form: Check-Out

Check-in / Check-Out Form

Employee Name

First Last

Employee Email

Date Time

MM/DD/YYYY HH:MM AM

☐ Check In ☐ Check Out

SEND

Definition: A structured form used for finalizing purchases in e-commerce platforms.

Examples:

- Input fields for shipping address, payment details, and order confirmation.
- Progress indicators showing steps like “Cart > Shipping > Payment > Confirmation.”

Key Features:

- Clear instructions and validation messages.
- Error prevention mechanisms, such as ensuring payment details are correctly formatted.

Relevance in Interaction Design: Well-designed check-out forms are essential for reducing friction and preventing cart abandonment.

Getting Input: Input Feedback

The image displays two versions of a login form to illustrate input feedback. The top form shows a successful state with a green message box at the top stating 'Please log in first and then we'll send you right along.' Below this, the 'Username:' and 'Password:' fields are empty, with a 'Remember me on this computer' checkbox and a 'Sign in' button. The bottom form shows an error state with a red message box at the top stating 'The username and/or password you entered is invalid.' The 'Username:' and 'Password:' fields are now filled with placeholder text, and the 'Remember me on this computer' checkbox and 'Sign in' button remain visible.

Definition: Visual or textual responses based on user input to guide or inform them.

Examples:

- A green checkmark indicating a correctly filled field.
- A red error message for invalid data, such as an incorrect email format.

Importance:

- Improves form usability.
- Reduces user frustration by providing clear guidance.

Relevance in Interaction Design: Clear input feedback enhances the user's ability to complete tasks efficiently and confidently.

Anti-Patterns

Definition: Common but ineffective design practices that lead to poor user experiences.

Examples:

- Overusing pop-ups that disrupt user flow.
- Infinite scrolling without navigation options, making it hard to reach specific content.
- Poor error messages, such as “Error 404” with no helpful explanation or solution.

Significance:

- Recognizing and avoiding anti-patterns helps create more intuitive and user-friendly designs.

Relevance in Interaction Design: Avoiding anti-patterns ensures smoother interactions and prevents user frustration, improving overall satisfaction.