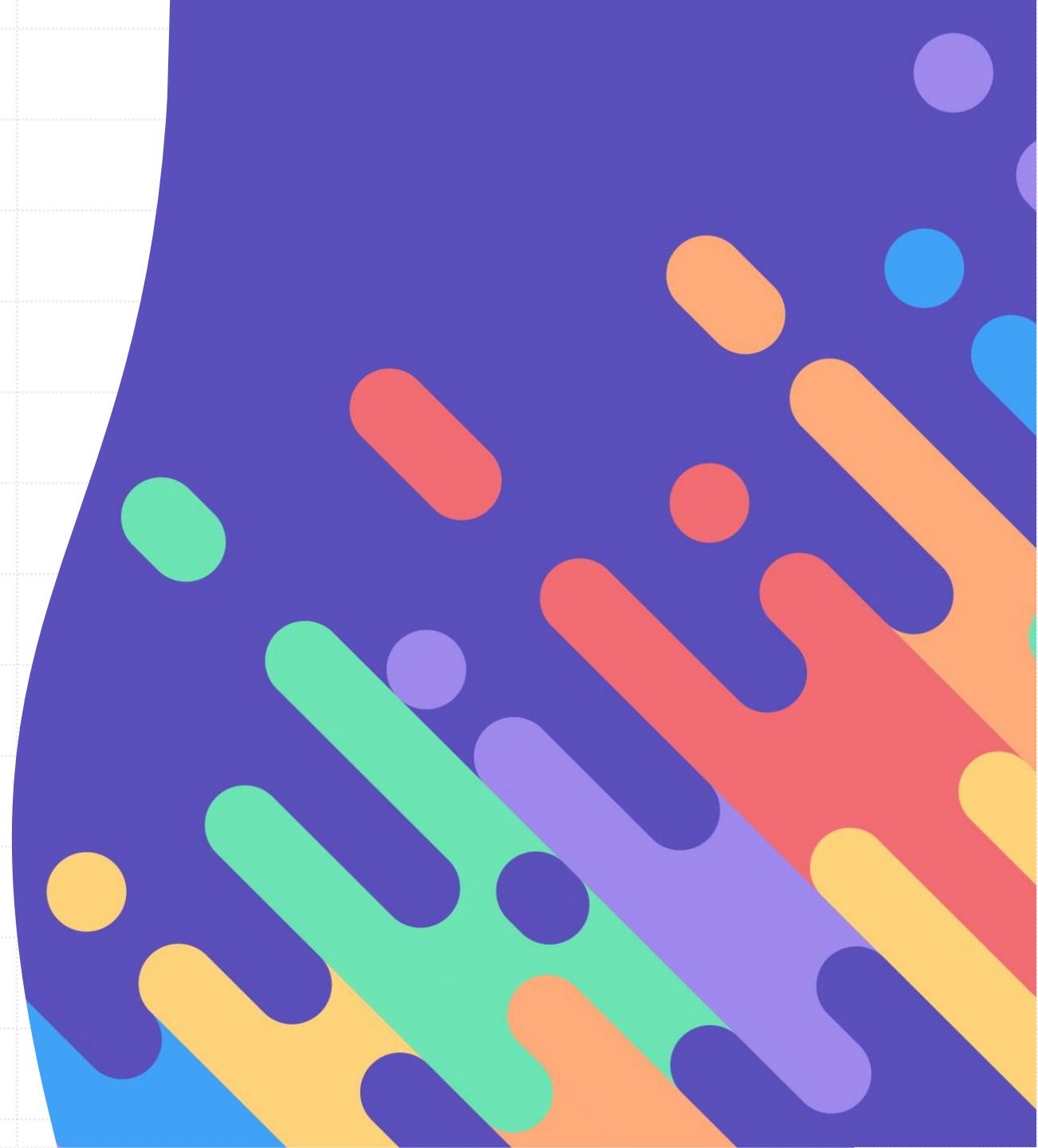


Topic 2

The Uses of Internet and Website for Business Purposes

CST4013 | Website Designing



Learning Outcomes



Identify the uses of websites



Discuss the processes involved
in website development.



Identify the principles of
website designing.



The Uses of Websites

Communication and Information Sharing

- Websites are a primary medium for sharing information and updates with a global audience:
 - News Websites: Provide real-time news updates (e.g., BBC, CNN, The Guardian).
 - Educational Websites: Offer information on specific topics (e.g., Wikipedia, Khan Academy).
 - Blogs: Allow individuals to share thoughts, experiences, and expertise (e.g., Medium, WordPress).



The Uses of Websites

Business and E-commerce

- Websites play a crucial role in business operations and sales:
 - Company Websites: Present brand information, products, services, and contact details (e.g., Apple, Tesla).
 - E-commerce Platforms: Enable online shopping and secure transactions (e.g., Amazon, eBay, Shopify).
 - Customer Support: Provide FAQs, live chat, and contact forms for assistance.

The Uses of Websites

Marketing and Advertising

- Websites serve as a marketing tool to promote businesses, products, and services:
 - Landing Pages: Highlight special offers or campaigns.
 - Portfolios: Showcase a professional's work (e.g., graphic designers, photographers).
 - Digital Ads: Platforms for hosting targeted ads (e.g., Google Ads landing pages).



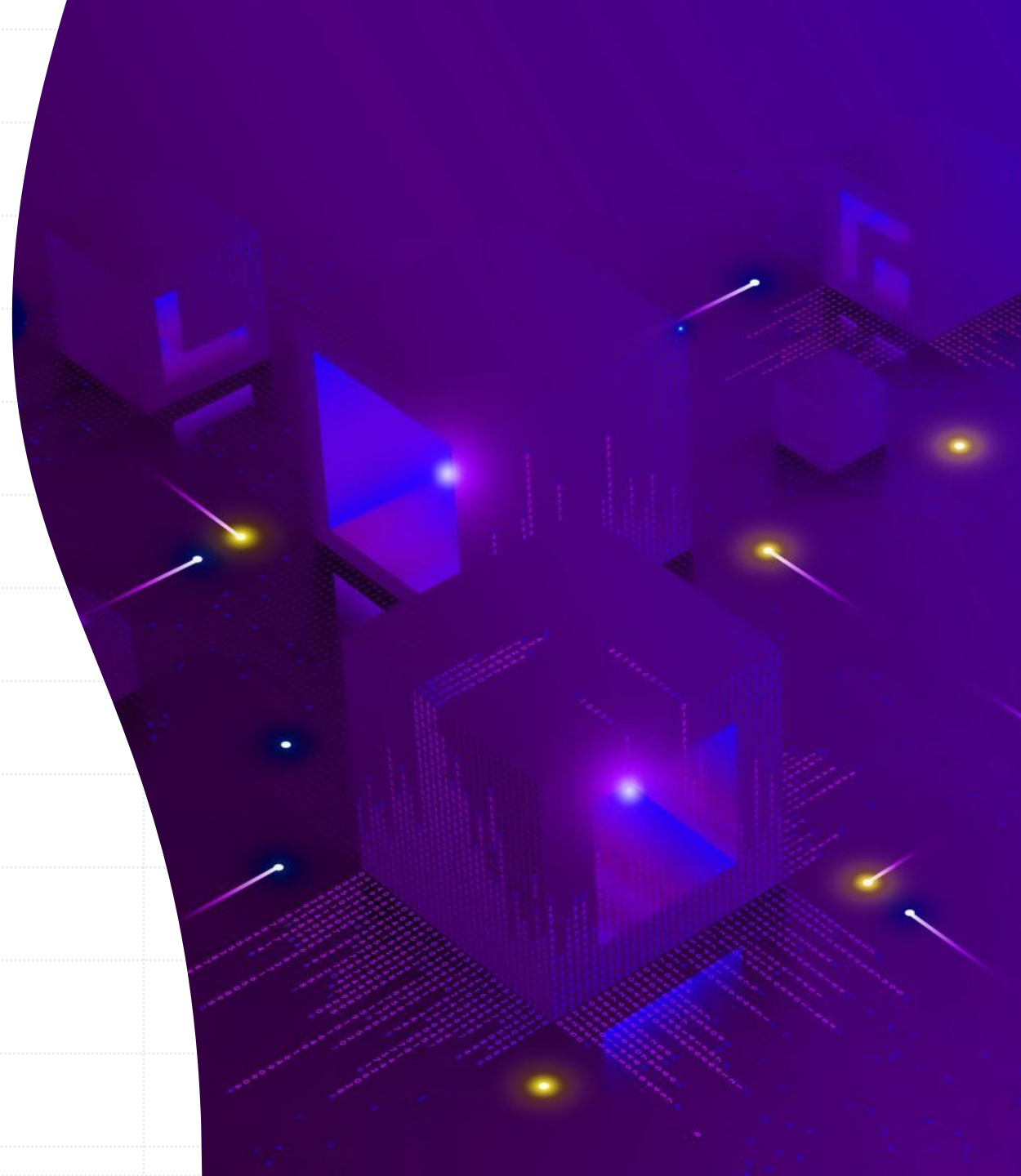
The Uses of Websites

- Education and Learning
- Websites are essential for providing educational content and resources:
 - Online Courses: Platforms like Coursera, Udemy, and edX host structured courses.
 - E-Libraries: Provide access to books, journals, and research material (e.g., JSTOR, Project Gutenberg).
 - Tutorials: Offer step-by-step guides and how-tos (e.g., W3Schools for coding).



The Uses of Websites

- Entertainment
- Websites provide access to diverse forms of entertainment:
 - Streaming Platforms: Deliver movies, TV shows, and live broadcasts (e.g., Netflix, Hulu, Disney+).
 - Gaming Websites: Offer online games or downloadable titles (e.g., Steam, Miniclip).
 - Social Media Sites: Allow interaction, sharing content, and entertainment (e.g., Instagram, TikTok).





The Uses of Websites

Collaboration and Networking

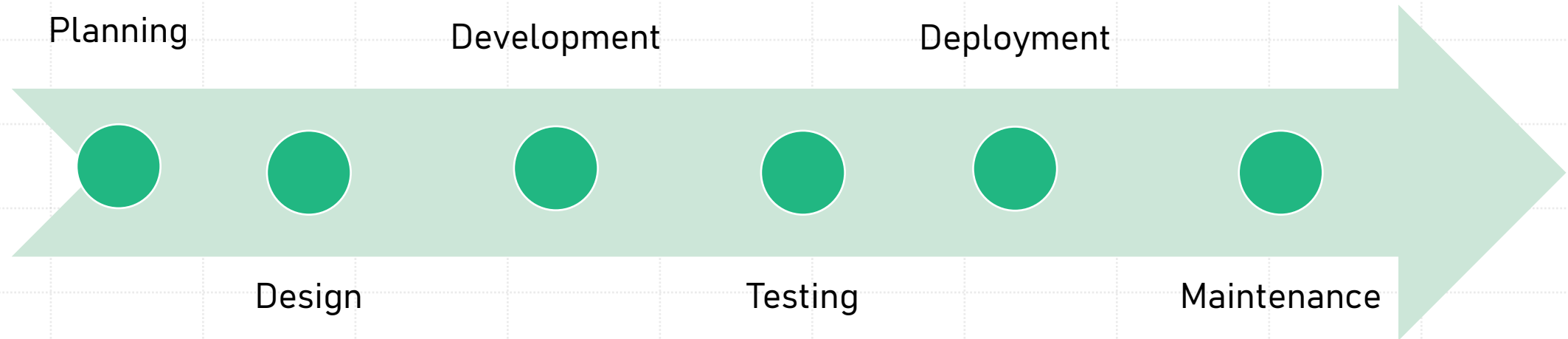
- Websites connect individuals and teams for collaboration and professional growth:
 - Social Networking: Build and maintain personal or professional connections (e.g., LinkedIn, Facebook).
 - Collaboration Platforms: Facilitate teamwork and project management (e.g., Slack, Basecamp).
 - Forums and Communities: Engage in discussions (e.g., Reddit, Stack Overflow).

Website Development Process

- A website development process is a documented and predictable set of steps to take to successfully complete a website development project or web application.
- This process helps to align development resources, stakeholders, and team members to ensure all aspects of the project are addressed and delivered on time.



The Website Development Process



1. Planning

- This is the foundational step that sets the direction for the entire project.
- There are five steps involve in planning:
 - Define goals and purpose
 - Audience analysis
 - Content requirements
 - Sitemap creation
 - Wireframing





Define goals and purpose

- Define Goals and Purpose is a foundational step in the web development process that focuses on establishing the reasons of behind a website's creation and identifying measurable objectives to guide its design and functionality.
- Primary Purpose examples:
 - E-commerce: Focus on selling products or services online.
 - Portfolio: Showcase work, skills, or projects.
 - Informational: Share knowledge, news, or updates (e.g., blogs, educational sites).
 - Lead Generation: Attract potential clients or customers for follow-up



Define goals and purpose

- Set measurable objectives examples:
 - Increase user engagement by 20% through interactive elements like comment sections or forums.
 - Boost sales by implementing effective call-to-action buttons and optimizing checkout processes.
 - Achieve a 10% increase in traffic within six months via SEO and social media campaigns.

Audience Analysis

- Target Audience Definition
 - Age Group: Helps determine design elements and tone of the content (e.g., vibrant colors for younger users, professional tones for older audiences).
 - Preferences: Identify what the audience values—e.g., simplicity, functionality, or visuals.
 - Technical Proficiency: For tech-savvy users, advanced features might appeal; for beginners, prioritize ease of use.



Content Requirements

- Gather Content
 - Text: About Us page descriptions, product details, blog articles.
 - Images: Product photos, team portraits, banner graphics.
 - Videos: Promotional videos, tutorials, or testimonials.
 - Documents: Whitepapers, e-books, or downloadable resources.
- Organize Content
 - Create categories:
 - Example for a clothing store:
 - Men's Wear
 - Women's Wear
 - Accessories



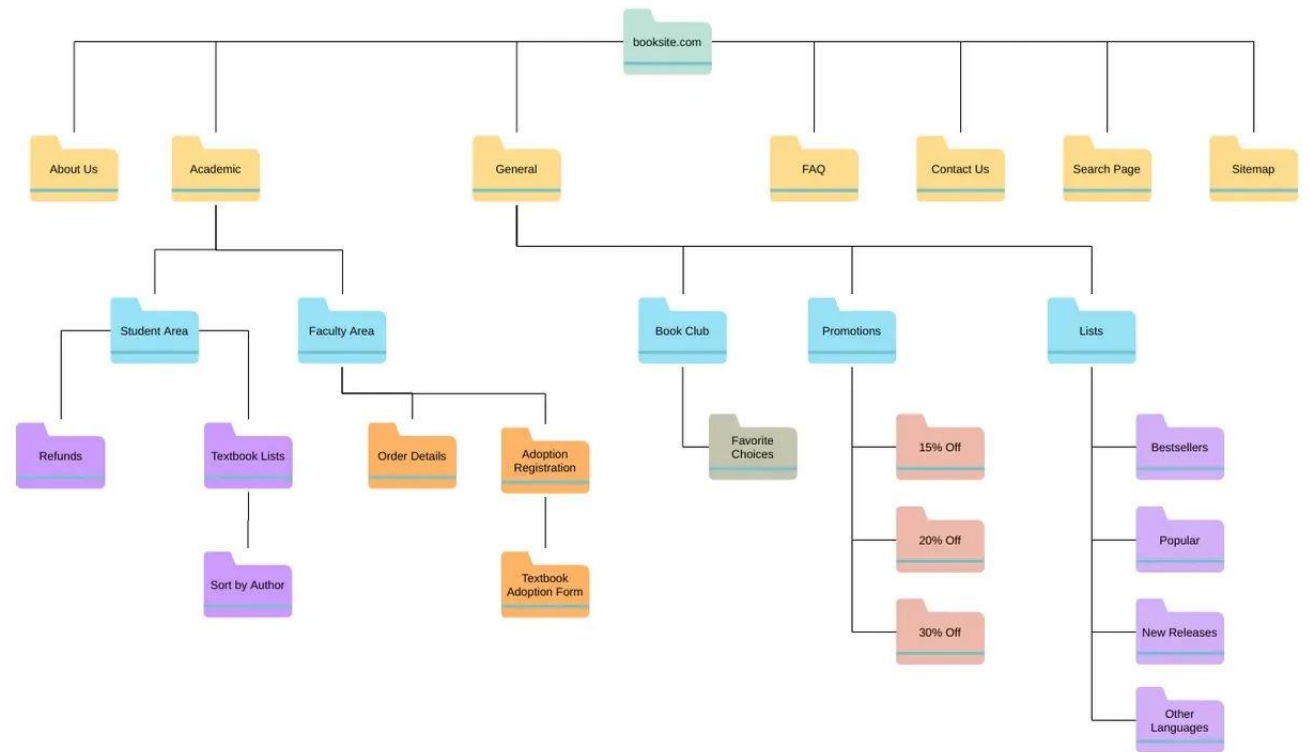


Sitemap Creation

- Sitemap creation is the process of organizing and visualizing the structure and relationships between pages on a website.
- A sitemap acts as a blueprint or roadmap for the website, detailing how its content is structured and how users will navigate through it.
- Use tools like Lucidchart or MindMeister to create a sitemap.
- Types of Sitemap:
 - Visual Sitemap:
 - A diagram showing the hierarchy and layout of pages.
 - Used during the planning and design phases.
 - Focuses on user navigation and content organization.

Sitemap Creation

- Types of Sitemap:
 - XML Sitemap:
 - A file designed for search engines.
 - Helps crawlers understand the website's structure for indexing purposes.
 - Includes URLs and metadata about pages (e.g., update frequency, priority).



Wireframes

- A website wireframe is used to map out the main features and navigation of a new website design.
- It gives an idea of the site's functionality before considering visual design elements, like content and color schemes.
- The information needed on each page and structural layout will be solidified.



Wireframes

- The examples of Wireframes tools including:
 - Adobe XD
 - Figma
 - Balsamiq
 - InVision
 - Sketch
 - Pen and Paper





2. Design

- Design in the web development process is creating web-friendly designs for a website or app using colors, fonts, styling, images, callouts, sizing, and layouts.
- Designs are built on top of your wireframes to retain approved page layouts.
- Web Design also takes into account mobile- and SEO-friendliness to ensure the new site is laid out appropriately for users on all devices and is structured appropriately for the search engines.

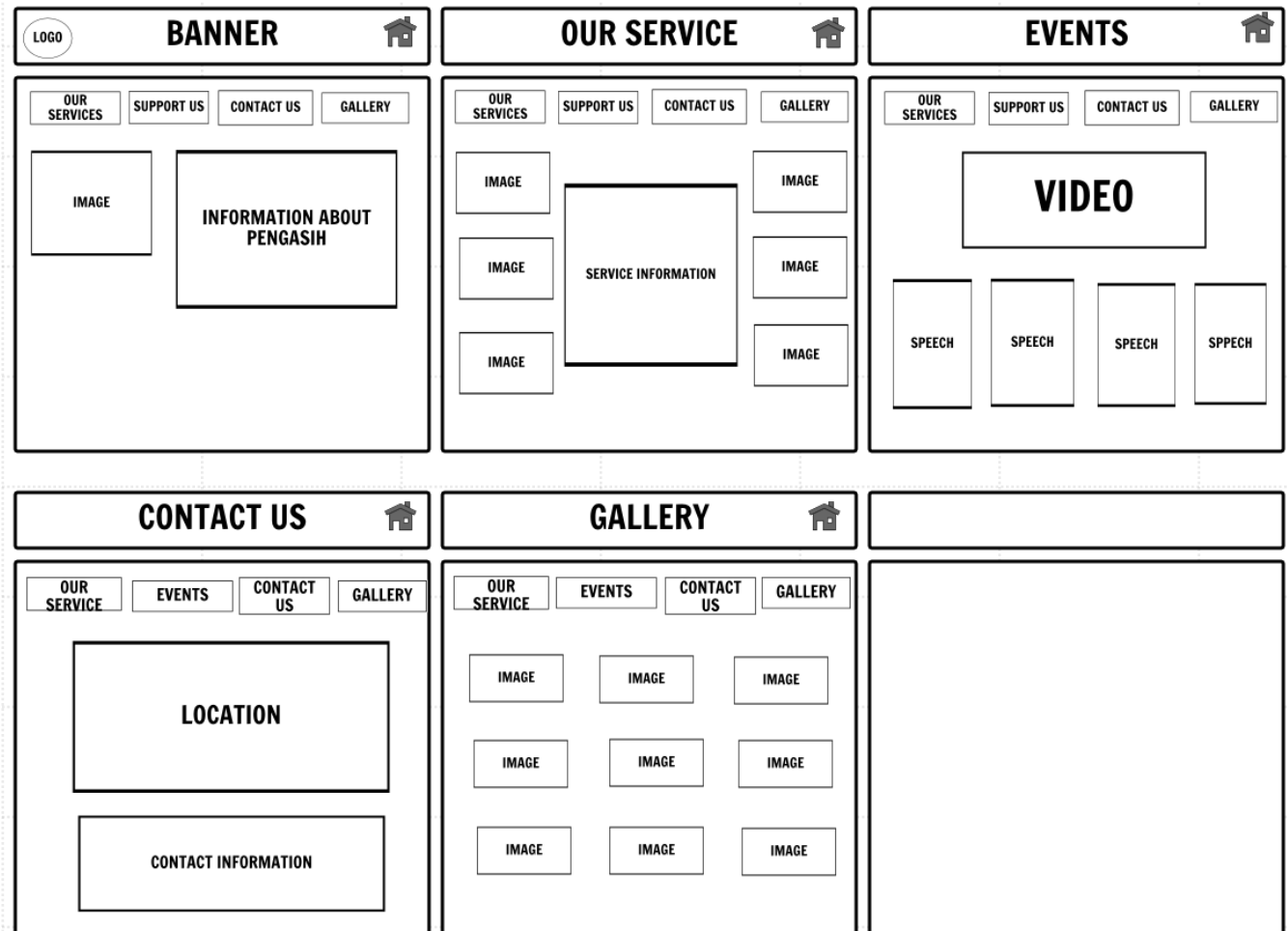


2. Design

Visual Design

- Choose a consistent color palette, typography, and iconography.
- Follow design principles such as:
 - Contrast: Ensures readability and highlights important elements.
 - Alignment: Keeps content visually organized.
 - Proximity: Groups related elements together for better usability.

Web Design



Create your own at [Storyboard That](#)

2. Web Design

- Tools for Web Design including:
 - Photoshop
 - InVision
 - Sketch
- Use responsive design principles to ensure the site works well on different devices.
- Test breakpoints for mobile, tablet, and desktop views.





3. Development

- The development team will utilize various programming languages to translate the designs and functionality to something that can be displayed to users in a web browser.
- This includes:
 - HTML
 - CSS
 - Javascript
 - C#



3. Development

- These designs will be translated by backend developers to a content management system (CMS) for website managers and editors to manage web content moving forward.
- Some examples of CMSs include:
 - Magento
 - Wordpress
 - Drupal
 - Sitecore
 - Joomla
 - Ghost

Website Development



Example of CMS (content management system).



4. Testing

- Testing in web development is the process of evaluating a website or web application.
- The examples of testing includes:
 - **Functional Testing**
 - Test all links, forms, and interactive elements to ensure they work correctly.
 - Check error handling for invalid form inputs.
 - **Cross-Browser Testing**
 - Test the website on multiple browsers (e.g., Chrome, Firefox, Edge, Safari).
 - Tools: BrowserStack, LambdaTest.



4. Testing

- **Responsive Testing**

- Verify the website's appearance and functionality across devices (mobile, tablet, desktop).
- Use tools like Chrome DevTools or Responsinator.

- **Accessibility Testing**

- Ensure compliance with accessibility standards like WCAG (Web Content Accessibility Guidelines).
- Test screen reader compatibility and keyboard navigation.



5. Deployment

- **Choose a Hosting Provider**

- Examples:
 - Shared hosting (affordable, beginner-friendly).
 - Cloud hosting (scalable and robust).

- **Domain Configuration**

- Register a domain name (e.g., GoDaddy, Namecheap).
- Connect the domain to the hosting provider using DNS settings.



5. Deployment

- **Deploy Files**

- Use FTP software (e.g., FileZilla) or Git for file uploads.

- **Performance Optimization**

- Minify CSS, JavaScript, and HTML to reduce file size.
- Optimize images using tools like TinyPNG or ImageOptim.
- Implement caching and Content Delivery Networks (CDNs) for faster load times.



6. Maintenance

- **Content Updates**

- Add or modify content as needed to keep it relevant.
- Use a CMS (Content Management System) for ease of content management.

- **Performance Monitoring**

- Track website speed and uptime using tools like Google Lighthouse or Pingdom.
- Analyze user behavior with Google Analytics.

- **Bug Fixes**

- Address user-reported issues and browser compatibility problems promptly.
- Regularly test for broken links and outdated features.

- **Security Updates**

- Apply security patches to frameworks and libraries.
- Use HTTPS and SSL certificates for secure data transmission.



Website Design

- Web design encompasses the planning and creation of the visual elements of a website, including layout, color schemes, typography, graphics, and overall aesthetics.
- It also considers user experience (UX) and user interface (UI) design principles to create an engaging and effective website.



Principles of Web Design

Visual
Hierarchy

Consistency

Responsive
Design

Color Theory

Typography

Navigation

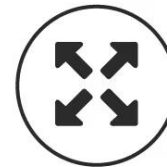
User-
Centered
Design

Accessibility

Visual Hierarchy

- Visual hierarchy refers to the arrangement of elements on a webpage to guide users' attention and influence their perception of importance.
- Techniques:
 - Size and Scale: Larger elements draw more attention (e.g., headings, calls to action).
 - Color and Contrast: Using contrasting colors to highlight important areas, such as buttons or important information.
 - Placement: Positioning critical elements higher on the page or in the center to ensure visibility.

Visual Design Principles



Size



Color



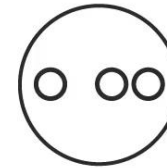
Contrast



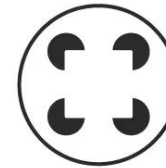
Alignment



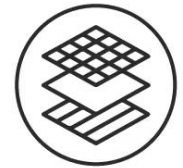
Repetition



Proximity



Whitespace



Texture and Style

The Google logo is displayed in its characteristic multi-colored font (blue, red, yellow, blue, green, red).

Google Search

I'm Feeling Lucky

» SQUARESPACE

TOUR

TEMPLATES

DEVELOPERS

PRICING

LOGIN

A promotional banner for Squarespace featuring a person in a workshop-like setting. The text is overlaid on the image.

EVERYTHING YOU NEED TO CREATE
AN EXCEPTIONAL WEBSITE

Free 14-day trial with 24/7 support. No credit card required.

GET STARTED

WATCH DEMO

Whitespace

- Whitespace, many times referred to as negative space.
- It's the unmarked distance between different elements that gives viewers some visual breaks when they process design, minimizing distractions and making it easier to focus.
- In web design terms, it's the space between graphics, columns, images, text, margins and other elements.

Consistency

- Consistency in design ensures that similar elements behave and appear the same throughout the website.
- Benefits:
 - Enhances usability as users learn how to navigate and interact with the site.
 - Strengthens brand identity using consistent logos, color schemes, and fonts.
 - Implementation: Use a style guide to define colors, fonts, and layout rules.

Inconsistent

HOME

About

Services

Consistent

Home

About

Services

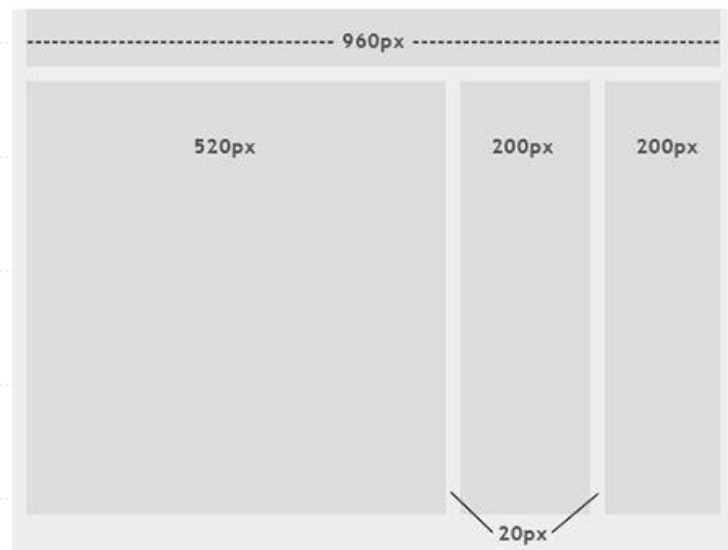


Responsive Design

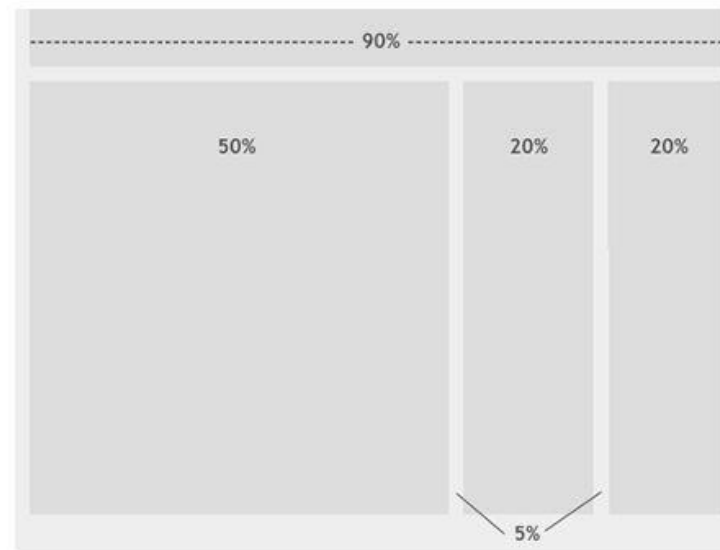
- Responsive design allows websites to adapt to different screen sizes and devices (desktops, tablets, smartphones).
- Techniques:
 - Fluid Grids: Using relative units like percentages instead of fixed units like pixels for layout elements.
 - Media Queries: CSS techniques that apply different styles based on device characteristics (e.g., screen width).
- Benefits: Improves user experience across devices and reduces the need for separate mobile versions of the website.

Responsive Design

FIXED



FLUID



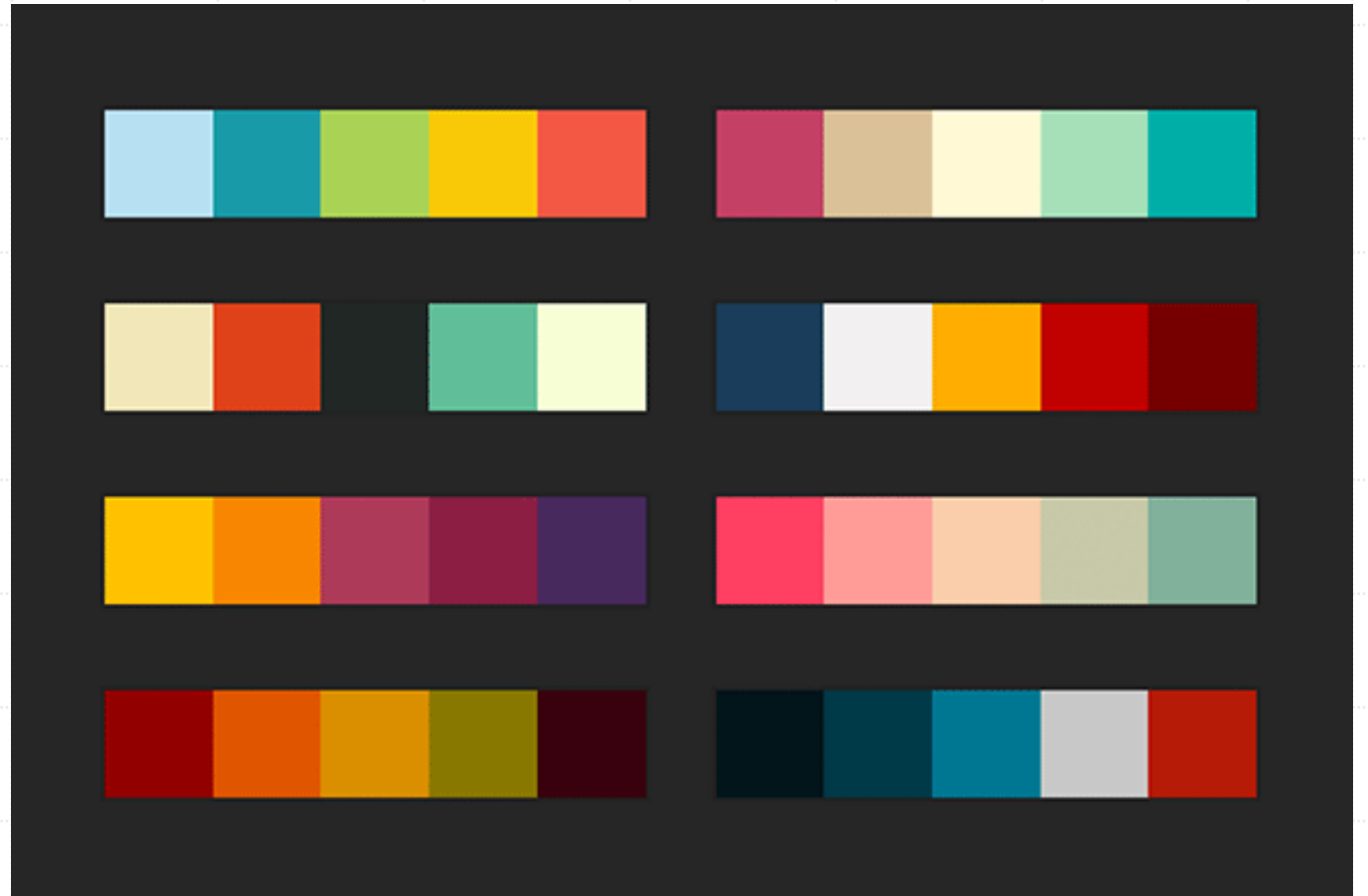


Color Theory

- Color theory involves understanding how colors interact and the psychological effects they have on users.
- Key Concepts:
 - Color Schemes: Choosing a harmonious palette that aligns with branding (e.g., complementary, analogous).
 - Contrast: Ensuring sufficient contrast between text and background colors for readability.
 - Application: Use colors to evoke emotions and guide actions (e.g., using warm colors for calls to action).

Color Theory

- Example:
- A Web design for a cozy little restaurant would do well with “earthy” tones: reds, browns, etc.



Typography



Typography refers to the art and technique of arranging type to make written language legible, readable, and visually appealing.



It involves the thoughtful and deliberate selection of typefaces, point size, line length, color and any element that can affect a design.



Readability is primarily the concern of the typographer or information designer.



In websites, consistency is key in the use of typography.



Typography

10 Tips On Typography in Web Design

1

Keep the number of fonts used at a minimum

2

Try to use standard fonts

3

Limit line length

4

Choose a typeface that works well in various sizes

5

Use fonts with distinguishable letters



Typography

10 Tips On Typography in Web Design

6

Avoid all caps

7

Don't minimize spacing between lines

8

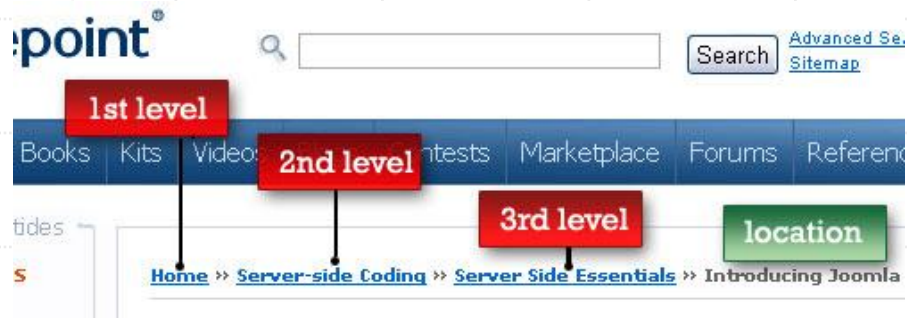
Make sure you have sufficient
color contrast

9

Avoid coloring text in red or green

Avoid using blinking text

Navigation



Navigation refers to the system that allows users to move through a website.



Best Practices:



Simplicity: Keep navigation menus simple and intuitive, with clear labels.



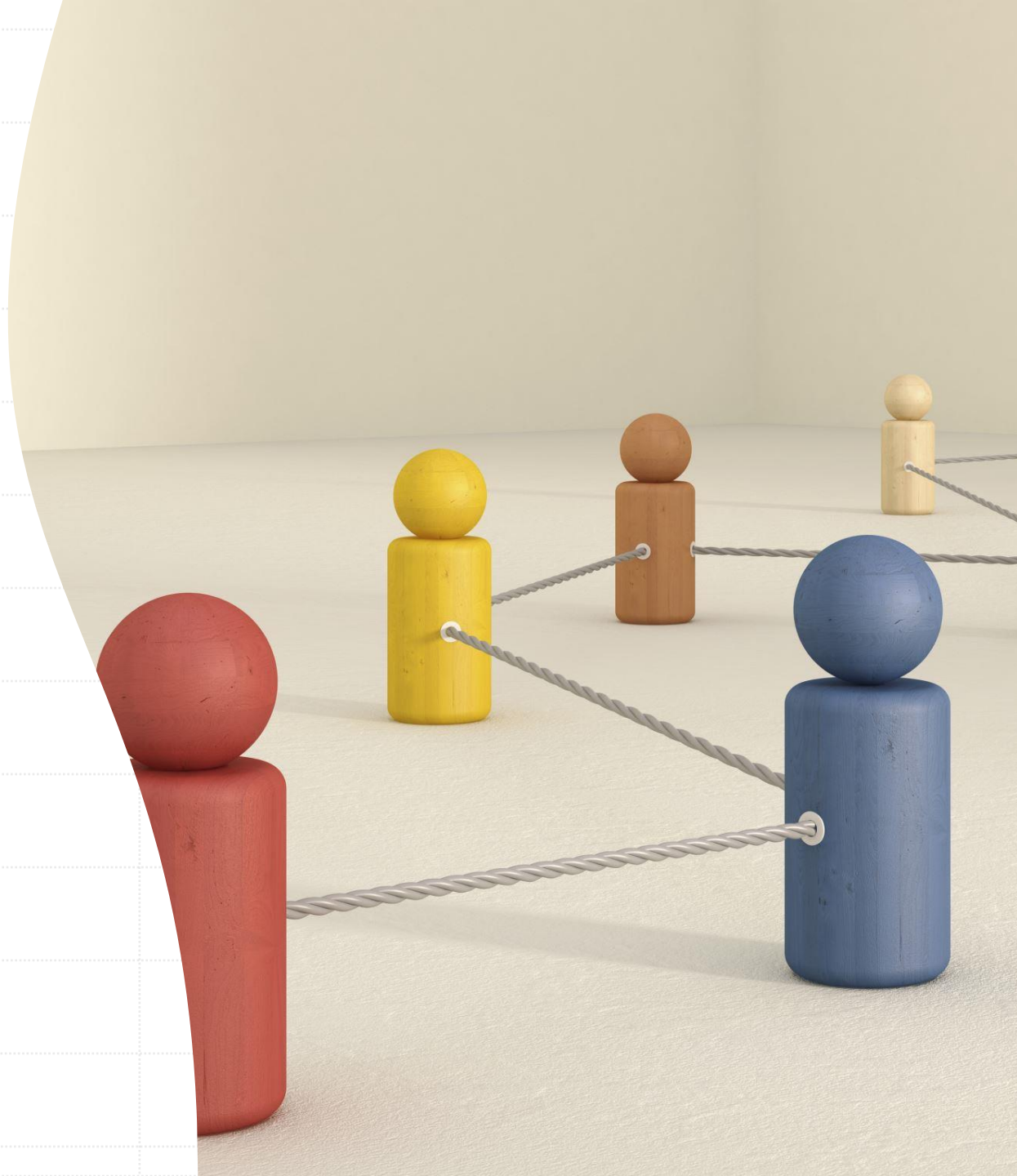
Visibility: Ensure that navigation elements are easily accessible, typically located at the top or side of the page.



Breadcrumbs: Use breadcrumb trails to help users understand their location within the site structure.

User-Centered Design

- User-centered design focuses on understanding the needs and preferences of users throughout the design process.
- Techniques:
 - User Research: Conduct surveys, interviews, and usability tests to gather insights about user needs.
 - Personas: Create user personas to represent different segments of the target audience, guiding design decisions.





Accessibility

- Accessibility ensures that all users, including those with disabilities, can use and navigate the website effectively.
- Key Principles:
 - Alternative Text: Provide descriptive alt text for images to assist users who use screen readers.
 - Keyboard Navigation: Ensure that all interactive elements are accessible via keyboard for users with mobility impairments.
 - Color Contrast: Adhere to accessibility guidelines for color contrast to ensure readability for users with visual impairments.



Thank you