



**DIRECTORATE OF  
INFORMATION TECHNOLOGY  
& COMMUNICATION**



# **WEBSITE MANAGEMENT MANUAL**



**DEPARTMENT OF INFORMATION TECHNOLOGY  
AND COMMUNICATION**

## 1. Introduction

### 1.1 – Purpose of the Manual –

- **Step-by-Step Guidance:** Manuals break down complex processes into easy-to-follow steps.
- **Eliminating Confusion:** To reduce the likelihood of mistakes by offering detailed explanations.
- **Uniformity:** To ensure that everyone follows the same procedures and to maintain consistency
- **Best Practices:** To document and enforce the use of proven, effective methods.
- **Time-Saving:** To provide ready access to information, saving time otherwise spent on trial and error.
- **Skill Development:** To help users quickly gain the knowledge and skills needed for effective performance.
- **Resource for New Users:** Manuals are invaluable tools for training new employees or users.
- **Reference Material:** To act as a reliable source of information for refresher training.
- **Regulatory Compliance:** For industries with strict regulations, manuals document compliance measures and protocols.

### 1.2- Importance of Website Management –

#### 1.2.1 Maintaining Relevance and Accuracy:

- **Fresh Content:** Regular updates ensure that visitors see current, accurate, and relevant information, enhancing credibility.
- **Timely Announcements:** Keeping news, events, or updates visible helps engage users and improves trust.

#### 1.2.2 Enhancing User Experience (UX):

- **Ease of Navigation:** Well-organized content and navigation improve user satisfaction and make the site intuitive to use.
- **Optimized Performance:** Regular performance checks ensure the site loads quickly and functions smoothly, reducing bounce rate

### 1.3 - Supporting Accessibility and Inclusivity

- **Compliance with Standards:** Adhering to guidelines like WCAG ensures the website is accessible to all users, including those with disabilities.
- **Broader Audience Reach:** Accessibility enhancements make the site usable by more people, including those on various devices and platform

### 1.4 Strengthening Security

- **Preventing Cyber Threats:** Regular updates to software, plugins, and security protocols protect against hacking, malware, and data breaches.
- **Building User Trust:** Secure websites (with HTTPS) reassure visitors that their data is safe

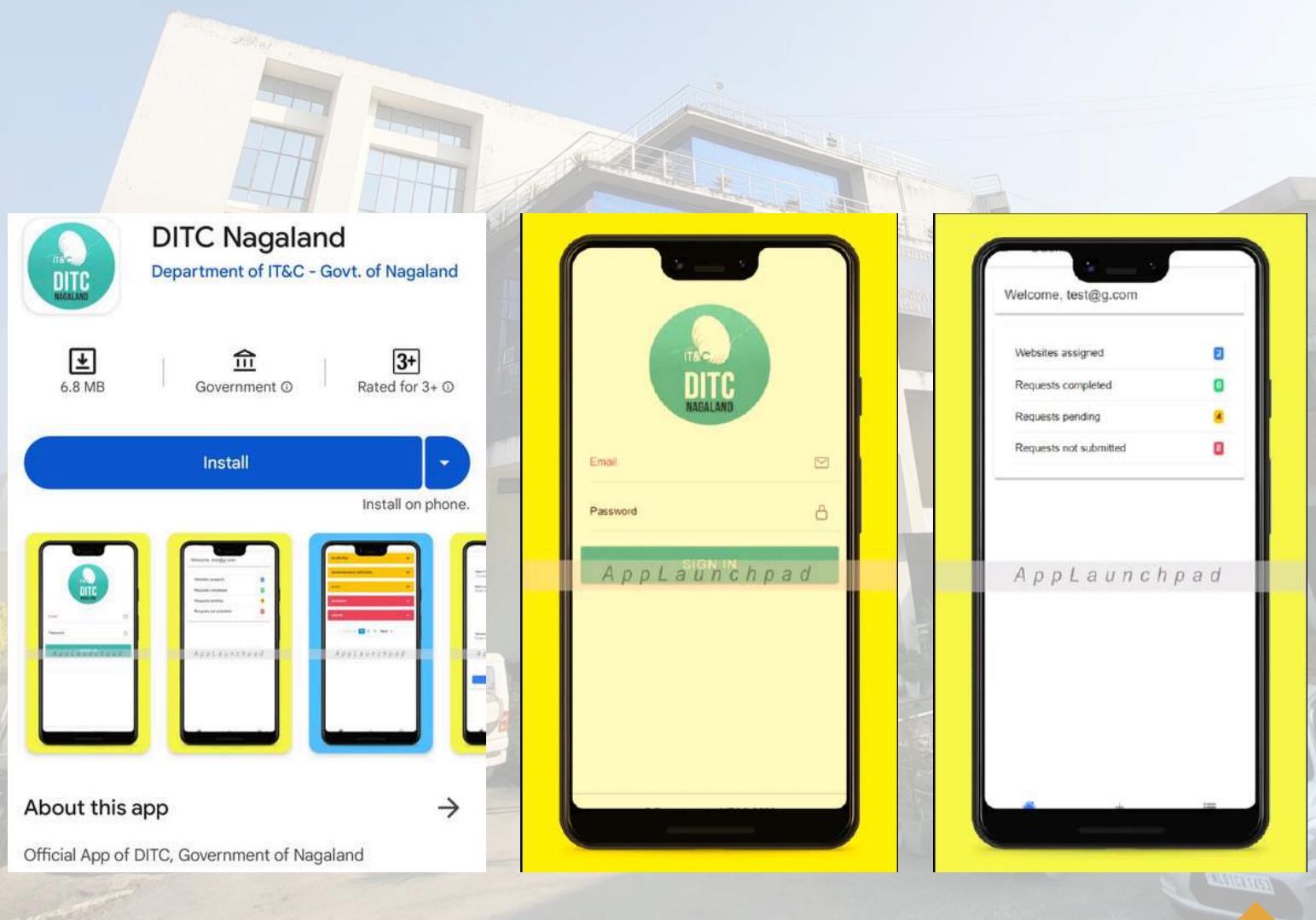


### 1.5 Boosting SEO and Visibility

- **Search Engine Ranking:** Frequent updates and adherence to SEO best practices help improve visibility on search engines.
- **Relevant Keywords:** Adding content with targeted keywords attracts more visitors

### 2. Process of updation :

- **Via email:** The content can be mailed to [webupdate.ditc@gmail.com](mailto:webupdate.ditc@gmail.com)
- **Via App/Webapp:** The Department of IT&C has streamlined the process of updating departmental content through the development of a dedicated mobile application “DITC Nagaland”, available on the Google Play Store. Released in August 2023, the app was accompanied by hands on training sessions for IT Nodal Officers for all departments.



### Features for Users:

**Account creation:** The Users has to first register an account in the app.

**Content Submission:** Users can upload documents or images directly via the app.

**Request Tracking:** The app records and displays the date a request is sent by the user and the date it is uploaded by the Department of IT&C.

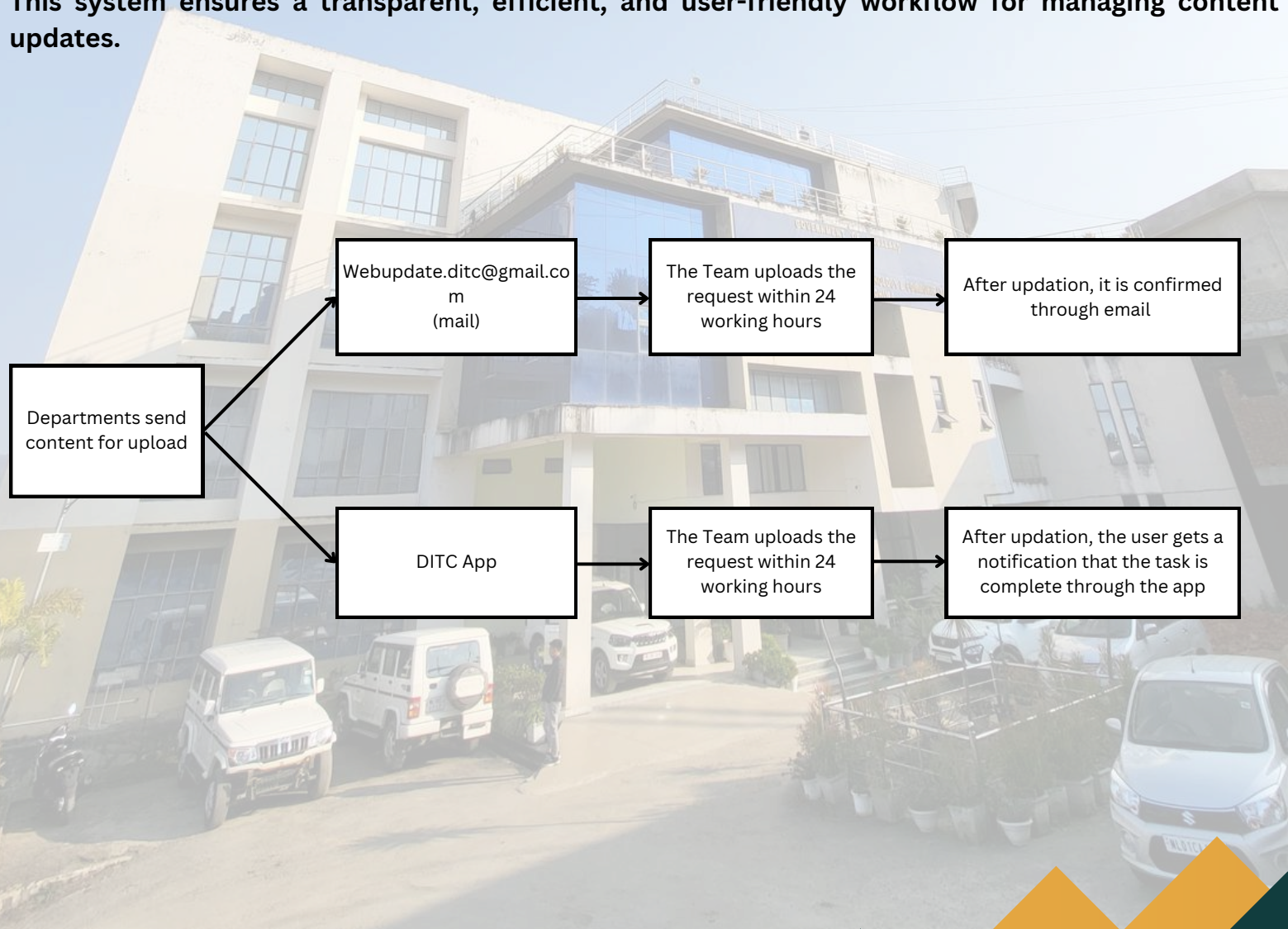
**Notifications:** Users receive a notification once their request has been processed and marked as complete.

### Features for Admins:

**Request Alerts:** Admin account holders are notified instantly when a new request is registered.

**Task Management:** Admins can upload the requested content and mark the task as complete, triggering a notification to the user.

This system ensures a transparent, efficient, and user-friendly workflow for managing content updates.





### 3. Basics of Website Management

#### • 3.1 - Structure of the Website

##### 3.1.1 - Homepage

###### •Purpose:

- Acts as the central hub of the website.
- Provides an overview of the website's purpose and key offerings.

###### •Management Tasks:

- Regularly update banners, featured content, and links to important pages.
- Ensure the design reflects the brand identity

##### 3.1.2 - Navigation System

###### •Components:

- Main Menu: Primary navigation links (e.g., Home, About Us, Services, Contact).
- Secondary Menus: Submenus for specific categories or topics.
- Breadcrumbs: Indicate the user's current location within the website hierarchy.

###### •Management Tasks:

- Ensure all links are functional and relevant.
- Organize categories logically for intuitive navigation.
- Use descriptive labels to help users find content easily.

##### 3.1.3 - Categories and Subcategories

###### •Purpose:

- Group related content for better organization.
- Enhance discoverability of information.

###### •Management Tasks:

- Define clear, non-overlapping categories.
- Regularly review and restructure categories based on user feedback and analytics.

##### 3.1.4 - Individual Pages

###### •Types of Pages:

- Static Pages: Content that doesn't change frequently (e.g., About Us, Privacy Policy).
- Dynamic Pages: Content that updates regularly (e.g., Blog, News, Events).

###### •Management Tasks:

- Update outdated information on static pages.
- Add, modify, or remove dynamic content based on organizational needs.
- Use metadata (titles, descriptions) for SEO optimization.

### 3.1.5 - Footer and Header

#### ·Header:

- Contains the logo, main navigation menu, and sometimes a search bar.
- Management: Keep the branding and navigation consistent across all pages.

#### ·Footer:

- Includes supplementary links, contact details, copyright information, and social media links.
- Management: Ensure footer content is up-to-date and accessible.

### 3.1.6 - Media Library

#### ·Purpose:

- Stores all multimedia assets (images, videos, documents).

#### ·Management Tasks:

- Organize files into folders or categories for easy retrieval.
- Optimize media for web performance (e.g., compressing images).

### 3.1.7 - Search Functionality

#### ·Purpose:

- Allows users to locate specific content quickly.

#### ·Management Tasks:

- Index new content regularly to keep the search database updated.
- Optimize search algorithms to provide relevant results.

### 3.1.8 - Contact and Feedback Mechanisms

#### ·Components:

- Contact forms, email links, chatbots, or feedback forms.

#### ·Management Tasks:

- Ensure contact forms are functional and secure.
- Regularly review and respond to user feedback.

### 3.1.9 - Content Management System (CMS)

#### ·Role:

- Enables administrators to create, edit, and manage website content.

#### ·Management Tasks:

- Assign user roles and permissions for controlled access.
- Keep the CMS platform updated to avoid security vulnerabilities.

### 3.1.10 - Sitemap

#### ·Purpose:

- Provides a blueprint of the website's structure.
- Helps search engines crawl and index the site effectively.

#### ·Management Tasks:

- Update the sitemap whenever new pages are added or removed.
- Submit updated sitemaps to search engines for indexing.



## 4. Website Features and Functionality

**4.1 - Essential Website Features** -Website features are the tangible elements and tools integrated into the website to provide value to users and achieve the website's objectives.

### a. Navigation Features

- Menu Bars: Provide a structured way to explore the site's content.
- Breadcrumb Navigation: Helps users track their location within the site structure.
- Search Functionality: Allows users to find specific information quickly.

### b. Design and Layout Features

- Responsive Design: Adjusts to different devices and screen sizes for optimal viewing.
- Call-to-Action Buttons (CTAs): Guide users toward desired actions, such as signing up or purchasing.
- Accessibility Features: Adheres to WCAG guidelines, such as keyboard navigation and alternative text for images.

### c. Content Features

- Dynamic Content: Regularly updated sections like blogs, news, or testimonials.
- Multimedia Integration: Support for videos, images, and audio to enhance engagement.
- Interactive Elements: Features like forms, quizzes, and surveys to engage users actively.

### d. Communication Features

- Contact Forms: Simplify communication between users and administrators.
- Live Chat or Chatbots: Provide real-time assistance.
- Newsletter Sign-Up: Enables email-based communication for updates.

### e. E-commerce Features

- Product Listings: Organized catalog of products with descriptions and images.
- Shopping Cart: Allows users to add and review items before purchasing.
- Payment Gateway Integration: Secure methods for processing transactions.

### f. Social Media Features

- Social Sharing Buttons: Encourage users to share content on their social media.
- Embedded Feeds: Display live updates from platforms like Instagram, Twitter, or Facebook.

## 4.2 - Essential Website Functionality

Website functionality refers to how effectively these features operate to deliver the desired outcome. It ensures a smooth and intuitive user experience.

### a. User Experience (UX) Functionality

- Fast Loading Times: Ensures pages load quickly, reducing user frustration.
- Mobile Compatibility: Ensures the site functions seamlessly on smartphones and tablets.
- Search Functionality: Retrieves accurate and relevant results efficiently.



## **b. Security Functionality**

- **Secure Sockets Layer (SSL):** Encrypts data for secure communication.
- **User Authentication:** Protects user accounts with features like password security and two-factor authentication.
- **Data Privacy Compliance:** Ensures adherence to GDPR, CCPA, or other regulations.

## **c. Database and Content Management**

- **Content Management Systems (CMS):** Enables easy updates and management of website content. Examples include WordPress, Joomla, and Drupal.
- **Database Integration:** Powers dynamic content like user accounts, product catalogs, or blogs.

## **d. Interaction and Engagement Functionality**

- **Form Validation:** Ensures that user input (e.g., emails, phone numbers) is correctly formatted.
- **Real-Time Updates:** Enables live notifications or dynamic content loading (e.g., stock availability).
- **Multilingual Support:** Adapts content to different languages based on user preferences.

## **e. Analytics and Reporting Functionality**

- **Visitor Analytics:** Tracks user behavior to optimize the site (e.g., Google Analytics).
- **Heatmaps:** Show areas of the site where users interact the most.
- **Conversion Tracking:** Measures success in achieving goals like sales or sign-ups.

## **5. Guidelines for Content Creation and Upload**

### **5.1. Writing User-Friendly and Accessible Content**

Creating content that is easy to understand, inclusive, and accessible ensures that it caters to a diverse audience. This is particularly important for meeting accessibility standards like WCAG (Web Content Accessibility Guidelines).

#### **•Clarity and Simplicity:**

- Use simple, conversational language to make content accessible to a wide range of users, including non-native speakers and those with cognitive disabilities.
- Avoid jargon, technical terms, or abbreviations unless they are explained.

#### **•Readability:**

- Use short sentences and paragraphs to improve readability.
- Aim for a reading level that aligns with your target audience (typically an 8th-grade level for general audiences).

#### **•Accessibility Standards:**

- Use descriptive text for images (alt text) to help screen readers interpret visuals.
- Ensure color contrast meets accessibility requirements to make text readable for users with visual impairments.
- Avoid flashing content or elements that could trigger seizures.



#### ·Inclusive Language:

- Use gender-neutral and culturally sensitive terms.
- Avoid bias or stereotypes in your writing.

### 5.2. Formatting Best Practices (Headings, Lists, and Links)

Proper formatting enhances readability, accessibility, and SEO performance. Consistent structure also improves user navigation.

#### ·Headings:

- Use hierarchical heading tags (H1, H2, H3) for a clear content structure.
- Ensure there is only one H1 tag per page (usually the page title).
- Use headings to break content into logical sections, making it easier to skim.

#### ·Lists:

- Use bullet points or numbered lists for clarity when presenting multiple items or steps.
- Avoid overloading lists; keep them concise and to the point.
- Use numbers for sequential steps (e.g., instructions) and bullets for non-sequential points.

#### ·Links:

- Use descriptive link text (e.g., "Learn more about our services" instead of "Click here").
- Ensure links are accessible by keyboard navigation.
- Avoid embedding links in long sentences; instead, make them stand out for better visibility.

### 5.3. File Upload Guidelines (Size, Format, Optimization)

Uploading files efficiently ensures faster website performance and a smoother user experience.

#### ·File Size:

- Keep file sizes small to reduce loading times and bandwidth usage. For images, aim for a size under 500KB wherever possible.
- Compress files (e.g., using tools like TinyPNG for images or Adobe Acrobat for PDFs).

#### ·File Format:

- Choose formats compatible with web usage:
  - \* Images: Use JPEG, PNG, or WebP for photographs and graphics.
  - \* Videos: Use MP4 or WebM formats for broad browser support.
  - \* Documents: Use PDF for downloadable files to ensure cross-platform consistency.

#### ·Optimization:

- For images, use appropriate resolution and dimensions (e.g., 72 DPI for web graphics).
- Use descriptive file names (e.g., "monthly-sales-report-2025.pdf" instead of "file123.pdf") to improve SEO and accessibility.
- Check that all uploaded content is accessible (e.g., PDFs should have searchable text and proper tagging for screen readers).



## 6. Accessibility Standards and Compliance :

**6.1 - GIGW - The Guidelines for Indian Government Websites (GIGW) aim to ensure that government websites are user-friendly, accessible, and secure. Below is a detailed explanation of the key aspects:**

### 6.1.1 - User-Centric Content

**·Objective:** To ensure that content is relevant, clear, and useful for all users, including the general public and specific stakeholders.

**·Key Points:**

- **Clarity and Simplicity:**

- \* Use plain language to communicate complex information effectively.

- \* Avoid technical jargon unless it is essential and explained.

- **Content Organization:**

- \* Structure information hierarchically, starting with the most important points.

- \* Use headings, subheadings, and bullet points for easy navigation.

- **Localization:**

- \* Provide content in multiple languages to cater to diverse audiences.

- \* Use culturally appropriate language and examples.

- **Timely Updates:**

- \* Keep the content current by removing outdated information and adding relevant updates.

### 6.1.2 - Consistent Navigation

**·Objective:** To provide users with an intuitive, predictable, and seamless browsing experience across the website.

**·Key Points:**

- **Uniform Navigation Elements:**

- \* Maintain consistent menus, headers, and footers across all pages.

- \* Include a site map and breadcrumb trails to aid navigation.

- **Logical Layout:**

- \* Group similar content under relevant categories.

- \* Ensure important links (e.g., contact, feedback, help) are easily accessible.

- **Responsive Navigation:**

- \* Design navigation elements to adapt to different devices (e.g., collapsible menus on mobile).

- \* Avoid clutter by limiting the number of top-level menu items.

- **Accessibility:**

- \* Ensure all navigation elements are accessible via keyboard and screen readers.

### 6.1.3 - Mobile-Friendly Design

**·Objective:** To ensure that the website functions seamlessly on mobile devices and provides an optimal user experience.



#### ·Key Points:

- **Responsive Design:**
  - \* Use flexible grids, layouts, and scalable images to adapt the website to various screen sizes.
  - \* Ensure text is legible without zooming, and buttons are large enough for touch interaction.
- **Performance Optimization:**
  - \* Minimize file sizes (e.g., images, scripts) to improve loading times on slower mobile networks.
  - \* Use lazy loading for images and videos to reduce initial load times.
- **Test Across Devices:**
  - \* Regularly test the website on various devices and browsers to ensure consistent performance.
- **Mobile-Specific Features:**
  - \* Implement mobile-friendly menus, such as hamburger menus.
  - \* Avoid pop-ups or interstitials that block content on smaller screens.

#### 6.1.4 - Security and Privacy Best Practices

·Objective: To protect user data and ensure the website complies with security standards and privacy regulations.

#### ·Key Points:

- **Data Encryption:**
  - \* Use SSL/TLS certificates to encrypt data transferred between the website and users.
  - \* Display a padlock symbol in the browser to reassure users.
- **User Authentication:**
  - \* Require secure login methods for accessing sensitive information or services.
  - \* Use two-factor authentication (2FA) for enhanced security.
- **Privacy Protection:**
  - \* Collect only the data necessary for specific functions and services.
  - \* Provide a clear privacy policy outlining data usage and protection measures.
- **Regular Security Updates:**
  - \* Keep software, plugins, and servers up to date to patch vulnerabilities.
  - \* Use firewalls, intrusion detection systems, and malware scanners.
- **User Consent:**
  - \* Obtain explicit consent for data collection and cookies.
  - \* Allow users to opt out of non-essential data tracking.

**6.2 - WCAG Guidelines - The Web Content Accessibility Guidelines (WCAG)** are a set of standards to make web content more accessible to people with disabilities, including visual, auditory, physical, speech, cognitive, and neurological impairments. These guidelines are categorized under four principles: **Perceivable, Operable, Understandable, and Robust**. Below is a detailed explanation of each principle:



### 6.2.1. Perceivable

- Web content must be presented in a way that users can perceive, regardless of their abilities or the technologies they use.
- **Text Alternatives:**
  - Provide alt text for all non-text content, such as images, to ensure screen readers can describe the content to visually impaired users.
  - Offer textual descriptions for charts, graphs, or infographics.
- **Captions:**
  - Include captions and transcripts for audio and video content to assist users with hearing impairments.
  - Use synchronized captions for live video streams to ensure inclusivity.
- **Adaptability:**
  - Design content to adapt to various user needs:
  - Use flexible layouts that work across different screen sizes and resolutions.
  - Ensure users can adjust font sizes or colors without breaking the layout or hiding content.

### 6.2.2 - Operable

- Web interfaces and navigation must be functional using various input methods and must not create barriers for users.
- **Keyboard Accessibility:**
  - Ensure all website functions, such as forms, menus, and interactive elements, are operable using a keyboard alone (e.g., via the Tab key).
  - Avoid time-sensitive tasks that disadvantage users with slower input methods.

### 6.2.3- Clear Navigation:

- Provide clear and consistent navigation options, such as menus, breadcrumbs, and a search bar, to help users find information quickly.
- Include visible focus indicators (e.g., a highlighted box) for interactive elements to guide keyboard navigation.
- Avoid content or functionality that causes users to become trapped (e.g., modals without a close button accessible by keyboard).

### 6.2.4 - Understandable

- Websites should be easy to read, comprehend, and predict, ensuring all users can interact with the content effectively.
- **Readable Content:**
  - Write in plain, simple language that is easy to understand, even for users with cognitive disabilities or non-native language proficiency.
  - Use headings and subheadings to organize content hierarchically.
  - Provide definitions or explanations for uncommon terms, abbreviations, or acronyms.



- **Predictable Design:**

- Maintain consistency in design and navigation across the website to avoid confusion.
- Ensure interactive elements behave predictably (e.g., links should open in a new tab only when clearly indicated).
- Avoid unexpected changes, such as automatic redirects or pop-ups, that could disorient users.

### 6.2.5. Robust

- Web content should be compatible with various technologies, including assistive tools, ensuring accessibility for all users.
- 
- **Compatibility with Assistive Technologies:**
- Use proper HTML semantics and ARIA (Accessible Rich Internet Applications) roles to help assistive technologies, like screen readers, interpret the content accurately.
- Ensure forms and other interactive elements have appropriate labels, roles, and error messages.
- Test compatibility with a wide range of devices and assistive tools, such as screen readers, magnifiers, and voice recognition software.

## 7. Troubleshooting Common Website Issues

Proper website management requires identifying and resolving common issues that can negatively impact usability, functionality, and accessibility. Below is an elaboration on common problems and steps to troubleshoot them effectively:

### 1. Broken Links

- **Description:** Links that lead to non-existent or incorrect web pages (404 errors) disrupt navigation and user experience.
- **Causes:**
  - The linked page has been deleted, moved, or renamed.
  - Errors in the URL format or typos in the hyperlink.
  - External websites have removed or updated their content.
- **Troubleshooting Steps:**
  - **Regular Link Checks:**
    - Use tools like Google Search Console, Screaming Frog, or Broken Link Checker to identify broken links.
  - **Update Links:**
    - Correct the URL or replace it with a working one.
  - **Redirect Setup:**
    - Implement 301 redirects for moved or updated pages.
  - **Avoid Relative URLs:**
    - Use absolute URLs (e.g., "https://example.com/page") to reduce link errors when hosting changes occur.



## 2. Missing or Incorrect Content

- **Description:** Content that is incomplete, outdated, or incorrect can confuse users and damage credibility.
- **Causes:**
  - Content was inadvertently deleted or not updated.
  - Incorrect information during the initial upload.
  - Formatting issues causing content to not display properly.
- **Troubleshooting Steps:**
  - **Content Audit:**
    - Perform regular reviews to identify missing or outdated content.
  - Re-upload Content:
    - Retrieve missing files from backups or archives and upload them again.
  - Content Management:
    - Use a Content Management System (CMS) to ensure accurate and systematic updates.
  - Approval Process:
    - Implement a review workflow to verify content before publication.

## 3. Media Upload Errors

- **Description:** Problems with uploading or displaying images, videos, or other media files can disrupt the visual appeal and functionality of a website.
- **Causes:**
  - Files exceed size limits or are in unsupported formats.
  - Insufficient server storage or incorrect permissions.
  - Errors in file paths or database references.
- **Troubleshooting Steps:**
  - **File Optimization:**
    - Compress files using tools like TinyPNG (for images) or HandBrake (for videos).
    - Use recommended formats (e.g., JPEG, PNG, MP4).
  - **Check Server Limits:**
    - Verify file size restrictions and increase them if necessary via server configuration.
  - **Correct File Paths:**
    - Ensure the media is uploaded to the correct directory and properly linked in the website code.
  - **Permissions:**
    - Check and set the correct read/write permissions on the server for uploaded files.



## 4. Accessibility Compliance Checks

- **Description:** Non-compliance with accessibility standards (e.g., WCAG) excludes users with disabilities, leading to usability challenges and potential legal issues.
- **Causes:**
  - Missing alt text for images or captions for videos.
  - Poor color contrast or inaccessible navigation elements.
  - Non-compatible design with assistive technologies like screen readers.
- **Troubleshooting Steps:**
  - **Run Accessibility Audits:**
    - Use tools like WAVE, AXE, or Google Lighthouse to check for compliance issues.
  - **Fix Common Accessibility Issues:**
    - Add descriptive alt text for images and captions for videos.
    - Ensure sufficient color contrast and use accessible fonts.
    - Implement ARIA roles and labels for interactive elements.
  - **Test with Assistive Tools:**
    - Evaluate the site using screen readers (e.g., NVDA, JAWS) and keyboard navigation.
  - **Regular Updates:**
    - Stay updated on accessibility standards and apply changes accordingly.

