Online Admissions Application Portal (OAAP) VPAT Update

Overview – March 2023

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Inappropriate Heading Structure

Headings add structure to the web page. Appropriate heading structure enables screen reader users to understand the page structure. Use headings in the correct sequence; such as h2 should follow h1, h3 should follow h2 and so on. Skipping heading levels will confuse screen reader users as to some information is not being read out to them.

Making text appear as headings visually by changing the font size or making the text strong will not be identified as a heading by the screen reader. In the absence of appropriate heading level mark-up, screen reader will treat it as a piece of text and important structure information will not be made available to the users.

In addition, screen reader users have a tendency to skim through the document using heading level navigation. Appropriate heading structure enables screen reader users to understand the document structure as well as navigate through the document easily.

Solution

Mark up the mentioned headings using <h2> and <h3> elements respectively as the heading level should begin with H2 in the modal dialog. It is recommended that the discussed issue be addressed as screen reader users rely on headings heavily to understand the content structure.

Pages
School/College Search screen

Address search screen

One-time Password modal

Image Examples:

Unnecessary alt text for decorative images

Alternate text provides the information conveyed through images to the users in the form of text. Alternate text is helpful for users with visual disabilities, learning disabilities, users browsing with text browsers etc. to understand the information conveyed using images. Provide meaningful and descriptive alternate text for images that describes the purpose of the image. However, if images are decorative then a descriptive alternate text is not required. Empty alternate text (alt='') should be specified for decorative images to ensure that screen reader skips the decorative images.

Solution

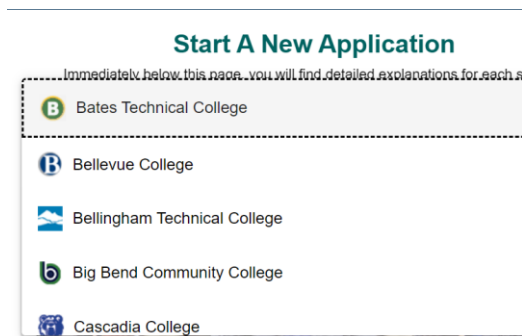Provide empty alt attribute i.e., alt="" for all the decorative images.

Pages
User Login Page

Admin Login Page

Page 1 application

Image Examples:

Non-interactive elements receive keyboard focus

Non-interactive element containing the "First Name:Ram", "Middle Name", "Last Name:Pataraju", etc. in the modal (which becomes available on activating "Preview" image link) receives the keyboard focus.

Inaccurate use of the 'tabindex' attribute in the HTML code of the page is the source of the problem. In fact, 'tabindex' attribute has been incorrectly specified for the non-focusable elements. This resulted in keyboard-only users having to go pass an additional tab stop while navigating between the page content.
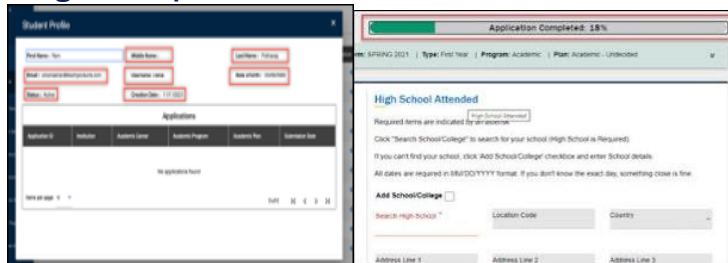
Solution

Provide empty alt attribute i.e., alt="" for all the decorative images.

Pages

Admin Page

Main application

Image Examples:

Insufficient color contrast

Two colors are considered to have good visibility if the contrast ratio between foreground text and background is sufficient. W3C has described the minimum contrast ratio for text that is less than 18 point (if not bold) and less than 14 point (if bold) to be 4.5:1 at Level AA and 7:1 at Level AAA.
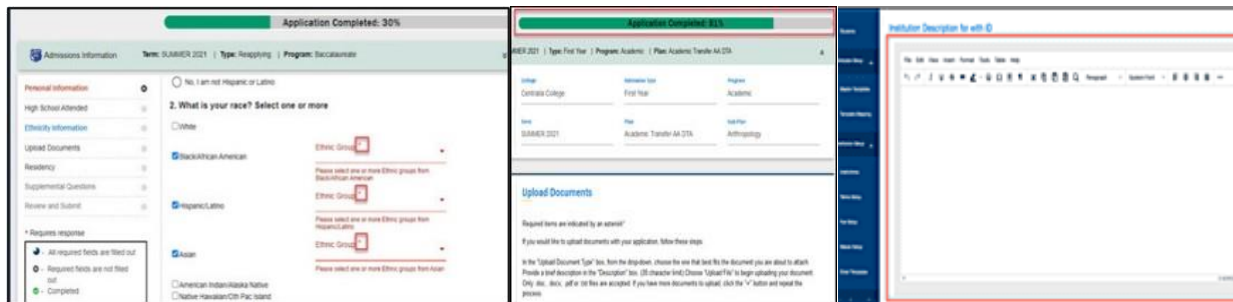
Solution

On all pages, ensure that each text/background color combination presents a contrast ratio of at least 4.5:1 for small text and 3:1 for text that is at least 18 points or bold 14 points.

Pages
ALL

Image Examples:

Identical label for form field

Identical label "Upload document type", "Upload File" and "Description" in the main content area is provided for form fields in the main content area of the page. As a result, screen reader users will not effectively understand the purpose of the form fields. Form control label enables users to understand the purpose of the form control. Identical form control labels make it difficult for the screen reader users to understand the functionality associated with the form control effectively.

Solution

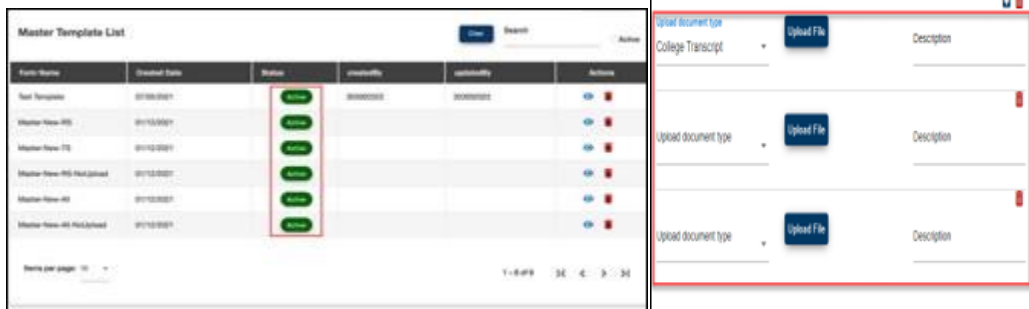On all pages, ensure that each form field has unique ID value.

Pages

User Login Page

Admin Login Page

Page 1/Main application

Image Examples:

Missing instruction for mandatory fields

Screen reader users often prefer identifying mandatory form field information in advance to complete the form successfully and avoid error messages. Well-defined mandatory form fields are also helpful for users with mobility impairments as they can fill up the form with ease. In the absence of mandatory form field information, users might incorrectly fill up the form and thus might lead to frustration.

Solution

The best way to mark mandatory form fields is by including the information within the form labels as all users read the label before filling up form details.

Pages
ALL

Image Examples

Invalid HTML code

The HTML code of the website does not validate against the HTML 5 specification. For instance, the source code of the page, presents 259 errors and 17 warnings when checked with the W3C validator. In particular, few instances are found where elements are not nested properly and an instance is found where duplicate id attribute value is specified for two different elements. As a result, the HTML validator generated errors.

Solution

Valid HTML mark-up is essential for the website content to be displayed accurately across different browsers. In the absence of valid HTML mark-up, some web browsers may not render the content correctly or present a correct object model to assistive technology. Therefore, it is essential that mark-up of all the pages is valid.

Pages
ALL

Image Examples:

Press the Message Filtering button to collapse the filtering options and error/warning/info counts.

Message Filtering

Warnings (1) · Hide all warnings · Show all warnings

1 ☑ The `type` attribute is unnecessary for JavaScript resources.

Info messages (2) · Hide all info messages · Show all info messages

1 ☑ Trailing slash on void elements has no effect and interacts badly with unquoted attribute values. (2)

Missing error messages

When a form is submitted empty, the fields with errors are identified via a red colored border that gets added for the corresponding field. However, textual error messages are not provided for the form fields. Additionally, users with color vision deficiencies will not be able to differentiate between the colors and will have no way to easily identify the change of color in the page.

Rationale

The lack of textual error messages makes it difficult for users (especially users who are blind or have learning disabilities) to recognize the presence of errors, identify the cause of the problem and understand how to solve it.

It is a good practice to display error messages using red color. However, color should not be used as the sole means to convey the error. Along with color, textual error messages should be added to ensure that all users can access the error message.

Users with visual impairments, such as color-blind users and blind users will find it difficult to understand information conveyed using color alone. When color is used to convey important information, it is essential that information is also available in at least one additional form, such as patterns, symbols, text, etc.

Solution

Information conveyed with the help of color is easy to understand for people with learning disabilities. However, if color alone is used people with visual impairments will find it difficult to understand the information. Thus, it is essential to supplement color with symbols, text, patterns, etc.
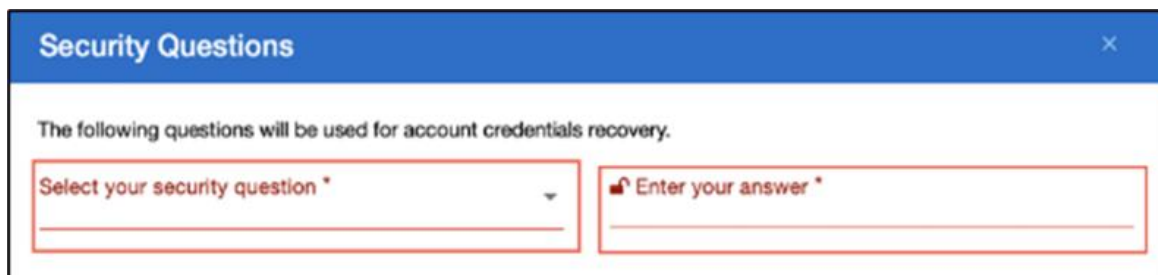
Pages
User Login Page

User Registration

Account Reset

Admin Login Page

Page 1/Main application

Image Examples

Error messages difficult to locate

When users submit the "Personal Information" form with errors, error messages gets displayed below respective form field and the keyboard focus remains on "Save for later" button itself. As a result, screen reader users were unaware about the occurrence of errors on the page.

Rationale

Error messages or form validation messages are pointers that enable users identify and rectify mistakes. As a result, error messages should be accurate and descriptive so that users are able to provide correct information and submit the form without any problem.

Error messages and form submission messages must be placed at the beginning of the form to ensure that all users can access them.

Screen reader users are likely to miss the error messages when displayed between form fields. In fact, these users generally tab through form fields without reading any of the text surrounding them (with the exception of labels).

When error messages are dynamically added on or around the form fields, screen readers should be informed about the error being added on the page to ensure that users are aware about the errors.
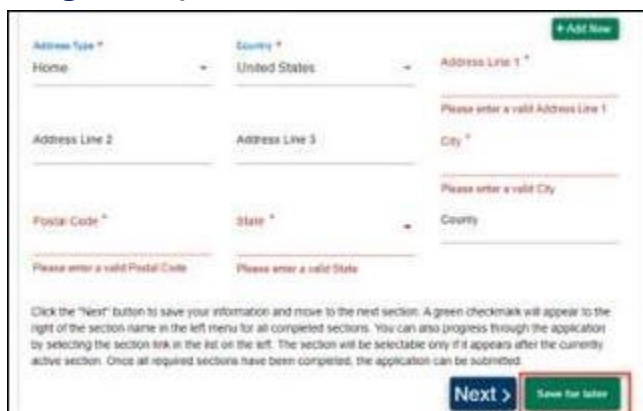
Solution

Set focus on the first form field with error in the form using the JavaScript .focus() method as soon as the form is submitted

Pages
ALL

Image Examples:

Non-interactive elements receive keyboard focus

Non-interactive element containing "Application Completed: 18%" text receives keyboard focus. Inaccurate use of the 'tabindex' attribute in the HTML code of the page is the source of the problem.

In fact, 'tabindex' attribute has been incorrectly specified for the non-focusable elements. This resulted in keyboard-only users having to go past an additional tab stop while navigating between the page content. Note: Users with mobility impairments (who find it difficult to control the mouse) rely on a keyboard to interact with a web page's content and functionality.

Rationale

Keyboard users and screen reader users use the 'Tab' key to move from one element to another on a web page. A logical tab order helps keyboard and screen reader users access the page easily. In the absence of a logical tab order, users who rely on a keyboard will get confused when they tab from one interactive element on a page to another. This will result in a poor experience for keyboard-only users.

Solution

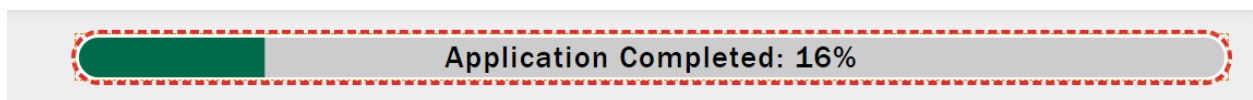Remove 'tabindex' attribute from non-focusable elements.

Pages

User Login Page

Admin Page

Main Application

Image Examples

Washington State Board for Community and Technical Colleges