

## Vocareum Voluntary Product Accessibility Template (VPAT)

This Voluntary Product Accessibility Template, or VPAT, is a tool that administrators and decision-makers can use to evaluate Vocareum's conformance with the accessibility standards under [Section 508 of the Rehabilitation Act](#) and the Act WCAG 2.0 AA Standards.

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July 15, 2018

Vocareum has self-evaluated the relevant student portions of the Vocareum Labs website to be substantially conformant with Level A and Level AA of the Web Content Accessibility Guidelines version 2.0. While not fully conformant, conformance issues that pose a significant barrier for users with disabilities have been addressed in the sample evaluated.

The following Vocareum sample pages were evaluated in the Student role:

- Student Login (<https://labs.vocareum.com/home/login.php>)
- Student Course Assignment Listing (<https://labs.vocareum.com/main/main.php?m=course&...>)
- Student IDE (<https://labs.vocareum.com/main/main.php?m=editor&...>)
- Student Gradebook (<https://labs.vocareum.com/main/main.php?m=anachart&...>)
- Help Website (<https://help.vocareum.com>)

Please note that certain 3rd party open source and commercial tools are installed on our platform (including Jupyter, RStudio MySQL Workbench, and Eclipse) for the convenience of the instructor and may be optionally selected for student use. These tools may not be accessible and are not covered in the scope of this VPAT.

## Web Content Accessibility Guidelines (WCAG 2.0) Checklist

This Voluntary Product Accessibility Template, or VPAT, is a tool that administrators and decision-makers can use to evaluate Vocareum' conformance with the WCAG 2.0 standards, level AA.

Name of Product: Vocareum

[WCAG 2.0 Guidelines](#)

Principle 1: Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
1.1 Text Alternatives: Provide text alternatives for any non-text content.	Supports	All elements have text alternatives.
1.2 Time-based Media: Provide alternatives for time-based media.	N/A	No time-based media in the platform.
1.3 Adaptable: Create content that can be presented and navigated in different ways.	Supports	All content is adaptable and navigable.
1.4 Distinguishable: Make it easier for users to see and hear content, including adequately separating the foreground from the background.	Supports	Color is not used as sole means of conveying information.  Pages meet contrast minimums.

Principle 2: Operable

User interface components and navigation must be operable.

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>2.1 Keyboard Accessible: Make all functionality available from a keyboard.</p>	<p>Supports</p>	<p>All Vocareum content is keyboard accessible.</p> <p>In the case of the embedded 3rd party editor (CodeMirror) that Vocareum uses, TAB keystrokes are trapped (in order to insert TAB character in the editor, rather than using it for navigation). Vocareum provides navigation away from the editor with CTRL-E keystroke.</p>
<p>2.2 Enough Time: Provide users enough time to read and use content.</p>	<p>Supports</p>	<p>No time sensitive content presented.</p>
<p>2.3 Seizures: Do not design content in a way that is known to cause seizures.</p>	<p>Supports</p>	<p>Content does not flash.</p>
<p>2.4 Navigable: Provide ways to help users navigate, find content, and determine where they are.</p>	<p>Supports</p>	<p>Heading and label structure is present and pages are accessed via a link or button.</p>

Principle 3: Understandable

Information and the operation of user interface must be understandable.

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
3.1 Readable: Make text content readable and understandable.	Supports	Pages have a specified language.
3.2 Predictable: Make web pages appear and operate in predictable ways.	Supports	Pages designed to appear in predictable ways.
3.3 Input Assistance: Help users avoid and correct mistakes.	Supports	Labels, instructions and error identification are accessible.

Principle 4: Robust

Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>4.1 Compatible: Maximize compatibility with current and future user agents, including assistive technologies.</p>	<p>Supports</p>	<p>HTML validation issues do not impact accessibility.</p>

## Section 508 of the Rehabilitation Act

Date: 7/15/2018

Name of Product: Vocareum

SECTION 1194.21 SOFTWARE APPLICATIONS AND OPERATING SYSTEMS – DETAIL

VOLUNTARY PRODUCT ACCESSIBILITY TEMPLATE®

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.</p>	<p>Supports</p>	<p>All features may be navigated and controlled with a keyboard.</p>
<p>(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.</p>	<p>Supports</p>	<p>Vocareum does not interfere with any operating system or browser shortcuts. Accessibility features such as sticky keys, magnifiers, screen readers, cursor sizes and virtual keyboards are not disabled or disrupted by Vocareum.</p>

<p>(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.</p>	<p>Supports</p>	<p>Vocareum supports the industry standard keys for navigation through input focus elements (tab key and shift/tab key). This functionality is available to end users and to Assistive Technology. The standard input focus indication as provided by the operating system is used by Vocareum and is also available to Assistive Technology.</p> <p>In the case of the embedded 3rd party editor (CodeMirror) that Vocareum uses, TAB keystrokes are trapped (in order to insert TAB character in the editor, rather than using it for navigation). Vocareum provides navigation away from the editor with CTRL-E keystroke.</p>
<p>(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.</p>	<p>Supports</p>	<p>Meaningful images in the Vocareum user interface have alt-text descriptions. Non-relevant images have no alt-text.</p>
<p>(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.</p>	<p>Supports</p>	<p>Bitmap images, such as icons and tool buttons, are used in a consistent manner throughout Vocareum.</p>

<p>(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.</p>	<p>Supports</p>	<p>Provided by the browser.</p>
<p>(g) Applications shall not override user selected contrast and color selections and other individual display attributes.</p>	<p>Supported</p>	<p>User-defined settings are fully respected by Vocareum.</p>
<p>(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.</p>	<p>Not applicable</p>	
<p>(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p>	<p>Supports</p>	<p>Vocareum does not use color alone to distinguish the importance of a visual element.</p>
<p>(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.</p>	<p>Supports</p>	<p>The interface of Vocareum has been styled with CSS to comply with Section 508's contrast and color settings.</p>
<p>(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.</p>	<p>Supports</p>	<p>Vocareum does not use flashing or blinking text.</p>



<p>(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.</p>	<p>Not Applicable</p>	
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SECTION 1194.22 WEB-BASED INTERNET INFORMATION AND APPLICATIONS – DETAIL

VOLUNTARY PRODUCT ACCESSIBILITY TEMPLATE®

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).</p>	<p>Supports</p>	<p>Meaningful images in the Vocareum user interface have alt-text descriptions. Non-relevant images have no alt-text.</p>
<p>(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.</p>	<p>Supports</p>	<p>Vocareum does not contain built-in multimedia presentations.</p> <p>Instructors and students upload their own content and are responsible for ensuring the accessibility of the uploaded content.</p>
<p>(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.</p>	<p>Supports</p>	<p>Vocareum does not use color alone to distinguish the importance of a visual element.</p>
<p>(d) Documents shall be organized so they are readable without requiring an associated style sheet.</p>	<p>Supports</p>	<p>A user or screen reader can read and understand pages in Vocareum with the associated stylesheets disabled.</p>

<p>(e) Redundant text links shall be provided for each active region of a server-side image map.</p>	<p>Supports</p>	<p>Vocareum does not employ server-side image maps.</p>
<p>(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.</p>	<p>Supports</p>	<p>Vocareum does not employ server-side image maps.</p>
<p>(g) Row and column headers shall be identified for data tables.</p>	<p>Supports</p>	<p>Vocareum always uses row and column headers.</p>
<p>(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.</p>	<p>Supports</p>	<p>Vocareum has no data tables with two or more logical levels of row or column headers.</p>
<p>(i) Frames shall be titled with text that facilitates frame identification and navigation</p>	<p>Supports</p>	<p>Vocareum provides titles on all frames.</p>
<p>(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p>	<p>Supports</p>	<p>Vocareum does not cause the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.</p>
<p>(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page</p>	<p>Supports</p>	<p>Vocareum is compliant with all provisions of this section, so a text-only version is unnecessary.</p>

<p>shall be updated whenever the primary page changes.</p>		
<p>(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.</p>	<p>Supports</p>	<p>Vocareum website scripting can be understood by most Assistive Technology.</p>
<p>(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).</p>	<p>Supports</p>	<p>Vocareum does not require any applets or plug-ins.</p>
<p>(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.</p>	<p>Supports</p>	<p>Vocareum and all forms in the application work with screen readers and other Assistive Technology.</p>
<p>(o) A method shall be provided that permits users to skip repetitive navigation links.</p>	<p>Supports</p>	<p>Vocareum permits users to skip repetitive navigation links.</p>

<p>(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.</p>	<p>Supports</p>	<p>Students are notified when elements are timed, and instructors can grant students additional time on timed elements on an as-needed, individual basis.</p>
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Note to 1194.22: Vocareum interprets items of this section as consistent with the Web Content Accessibility Guidelines 2.0 (WCAG 2.0) (December 8, 2008) published by the Web Accessibility Initiative of the World Wide Web Consortium: (a) 1.1, (b) 1.2, (c) 1.4, (d) 1.3 (g) 1.3, (l) 4.1, and (o) 2.4.

SECTION 1194.31 FUNCTIONAL PERFORMANCE CRITERIA – DETAIL

VOLUNTARY PRODUCT ACCESSIBILITY TEMPLATE®

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.</p>	<p>Supports</p>	<p>All features may be accessed by text input, and all results may be accessed as plain text. Assistive Technology can allow visually impaired people to submit commands via voice input or other means and can allow plain text results to be presented via speech synthesis or a Braille display.</p>
<p>(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.</p>	<p>Supports</p>	<p>Vocareum supports screen magnification and browser-provided zoom functionality.</p>
<p>(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided.</p>	<p>Supports</p>	<p>Vocareum does not require hearing for operation.</p>

<p>(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.</p>	<p>Supports</p>	<p>Vocareum does not use any audio for its default operation. Users can upload their own content and are responsible for ensuring the accessibility of the uploaded content.</p>
<p>(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.</p>	<p>Supports</p>	<p>Vocareum does not require speech to access the full functionality of Vocareum.</p>
<p>(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.</p>	<p>Supports.</p>	<p>Vocareum does not require fine motor control or simultaneous actions. It is accessible via keyboard.</p>

SECTION 1194.41 INFORMATION, DOCUMENTATION AND SUPPORT – DETAIL

VOLUNTARY PRODUCT ACCESSIBILITY TEMPLATE®

CRITERIA	SUPPORTING FEATURES	REMARKS AND EXPLANATIONS
<p>(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge</p>	<p>Supports</p>	<p>Product support in an accessible text-based format is available online at <a href="http://help.vocareum.com">http://help.vocareum.com</a>.</p> <p>In addition, all product support files may be optionally in alternate formats.</p>
<p>(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.</p>	<p>Supports</p>	<p>All product features are described in HTML and may be read by Assistive Technology.</p>
<p>(c) Support services for products shall accommodate the communication needs of end-users with disabilities.</p>	<p>Supports</p>	<p>Technical support is available via plain text email which may be read by Assistive Technology.</p>