Australian Government

Department of Education, Employment and Workplace Relations

ICAT4183B Confirm accessibility of website for people with special needs

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

ICAT4183B Confirm accessibility of website for people with special needs

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to ensure that a website is accessible to users with special needs including people with disabilities. The following units are linked and form an appropriate cluster: - ICAA4142C Design a website to meet technical requirements - ICAB4135B Create a simple mark up language document to specification - ICAB4171B Develop cascading style sheets - ICAD4209B Write content for web pages - ICAI4189B Ensure website content meets technical protocols and standards - ICAT4184B Ensure site usability for full range of users - ICAT4185B Create a website testing procedure - ICAT4186B Conduct operational acceptance tests of websites No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify accessibility standards	1.1. Research and identify specific **user groups** with particular accessibility **requirements** 1.2. Identify general legislated and industry accessibility **standards** and **requirements** to understand the wider context of accessibility 1.3. Identify web **development standards** and prioritise application 1.4. Consolidate specific and general **standards** and **requirements** into an accessibility checklist for application to website related work
2. Test for accessibility of website	2.1. Select and prepare appropriate automatic **testing tools** and **software** 2.2. Run automatic **testing tools** and based on results, make and document changes 2.3. Ensure that the text equivalent for every **non-text element** is present in the website where feasible 2.4. Verify that all information conveyed with colour is also available without colour 2.5. Identify all changes in the natural language of a document text 2.6. Check and ensure that document can be read without style sheets 2.7. Check and ensure that all priorities identified in the analysis of **web development standards** are met and completed 2.8. Test site with different **user groups** to ensure that the site transforms successfully and maintains accessibility
3. Test pages	3.1. Check and ensure that pages are not dependent on colour and can operate in a monochrome environment 3.2. Check and ensure that pages are logical and accessible in a text-only environment 3.3. Verify that pages operate correctly on text-to-speech **browser** 3.4. Have the accessibility of the website signed off by an appropriate person as meeting **web development standards**

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- Developing a website
- Analysing a website
- Designing technical tests
- Implementing tests
- Evaluating tests
- Giving feedback on the evaluation
- Analysing the evaluation
- Identifying and accommodating user groups with special needs

Required knowledge

- Website architecture
- Website security
- Work load metrics
- Technical performance measurement
- Business process design
- Customer and business liaison
- Government, advocacy group and special needs group liaison
- Website accessibility, security and equity legislation
- Web Accessibility Initiative (WAI)
- Copyright and intellectual property
- Relevant privacy legislation and principles
- Electronic commerce modelling language
- Australian Computer Society Code of Ethics
- Access and equity legislation and principles

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: • Accessible web pages take into account the special needs of visitors with auditory, visual, mobility, and cognitive impairments and those people who use assistive technology. The objective is to provide those users an equivalent browsing experience to that of visitors without special needs. • Assessment must confirm the ability to identify accessibility requirements with reference to the client profile, to design or implement a valid accessibility test, to facilitate the test process and document results. The proposed solution must meet legal, special customer and business needs and expectations as well as the current and future needs of the business. Design elements that are considered undesirable in the website should be highlighted for redesign for better accessibility. To demonstrate competency in this unit the person will require access to: • Live website • Requirements documentation • Customer relationship model • Automatic accessibility measuring tools
Context of and specific resources for assessment	The expansion in availability and use of the internet provides challenges for developers and website custodians in respect of access for people with special needs. Accessibility refers to ensuring that content is accessible (i.e. It can be navigated and read by everyone, regardless of location, experience, or the type of computer technology used). Accessibility is most commonly discussed in relation to people with disabilities, because this group are most likely to be disadvantaged if the principles of accessible web design are not implemented. Failure to follow these principles can make it difficult or impossible for people with

EVIDENCE GUIDE	
	disabilities to access content. Creating accessible content should be an integral part of the web design philosophy, and accessibility features should be incorporated into all aspects of the design process. Designing for accessibility is thus as much a strategic issue as a purely technical one.
	The focus of this competency is testing for accessibility. Such testing should be incorporated into any and all user testing regimes, and not be seen as an isolated event that can occur after other user testing has taken place.
	Depending on complexity of content, basic knowledge and skills would prepare a person to perform in a range of activities where there is a clearly defined range of contexts for the website.
	The breadth, depth and complexity of knowledge and skills in this competency would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance would be involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.
	Assessment must ensure:
	• Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills would be characteristic.
	• Applications may involve responsibility for, and limited organisation of, others.

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EVIDENCE GUIDE	
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. • Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. • Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICAA4142C Design a website to meet technical requirements • ICAB4135B Create a simple mark-up language document to specification • ICAB4171B Develop cascading style sheets • ICAD4209B Write content for web pages • ICAI4189B Ensure website content meets technical protocols and standards • ICAT4184B Ensure site usability for full range of users • ICAT4185B Create a website testing procedure

EVIDENCE GUIDE	
	• ICAT4186B Conduct operational acceptance tests of websites An individual demonstrating this competency would be able to: • Demonstrate understanding of a broad knowledge base incorporating some theoretical concepts • Apply solutions to a defined range of unpredictable problems • Identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas • Identify, analyse and evaluate information from a variety of sources • Take responsibility for own outputs in relation to specified quality standards • Take limited responsibility for the quantity and quality of the output of others An individual demonstrating this competency would be able to: • Test a website for accessibility • Demonstrate some theoretical knowledge of website content creation • Apply a range of well-developed skills in communication and negotiation • Perform a range of skills in website design where some discretion and judgement is required • Interpret available information using discretion and judgement • Maintain knowledge of industry products and services

Range Statement

RANGE STATEMENT
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work

RANGE STATEMENT

situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

RANGE STATEMENT	
Web development standards may include:	• Web content accessibility guidelines 1.0 (WCAG) • Authoring tool accessibility guidelines 1.0 (ATAG) • User agent accessibility guidelines 1.0 (UAAG) • Web accessibility initiative (WAI) • Best practice vendor-specific accessibility standards
User groups may include but is not limited to:	• person with auditory • visual • mobility • cognitive impairments
Software may include but is not limited to:	• commercial software applications • organisation-specific software • packaged software • in-house or customised software
Browser may include but is not limited to:	• Netscape Navigator • Internet Explorer • Mozilla • Opera • Galleon • Phoenix • Konqueror • Lynx
Standards may include:	• ISO/IEC/AS standards • organisational standards • project standards (for further information refer to the Standards Australia website at: www.standards.com.au)
Requirements may be in reference to:	• business • system • application • network • people in the organisation
Testing tools may include but is not limited to:	• Bobby • Opera • PwWebSpeak • Lynx • General Magic's Web-On-Call

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RANGE STATEMENT	
Non-text element may include:	• Images, graphical representations of text (including symbols) • Image map regions • Animations (e.g. animated GIFs) • Applets and programmatic objects • ASCII art • Frames • Scripts • Images used as list bullets • Spacers • Graphical buttons • Sounds (played with or without user interaction) • Standalone audio files • Audio tracks of video, and video

Unit Sector(s)

Unit sector	Test

Co-requisite units

Co-requisite units		

Competency field

Competency field	