



Australian Government

UEECS0018 Develop web pages for engineering applications

Release: 1

UEECS0018 Develop web pages for engineering applications

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to develop web pages for engineering applications.

It includes working safely, developing web pages using authoring tools, client-side scripting, fundamental server-side scripting and documenting development activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Computer Systems

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to develop web pages for engineering applications

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified, obtained and applied

- 1.2 Scope of development work is determined from page development specifications and in consultation with relevant person/s
 - 1.3 Activities are planned in accordance with workplace procedures for timelines and in consultation with others involved
 - 1.4 Relevant development tools and software are selected in accordance with development requirements and relevant industry standards
 - 1.5 Strategies are implemented to ensure development work is in accordance with workplace procedures
- 2 Develop web pages for engineering applications**
 - 2.1 Syntax functions and features of mark-up language scripts are applied to developing client-side programming in accordance with development requirements and workplace procedures
 - 2.2 Pages are created and rendered with relative and absolute links, images and table formatting in accordance with development requirements and workplace procedures
 - 2.3 Forms are created with relevant elements and element groupings in accordance with development requirements and workplace procedures
 - 2.4 Server scripting languages are applied to scripting to developing client-side programming and validations in accordance with development requirements and workplace procedures
 - 2.5 Unplanned events are analysed to provide effective solutions in accordance with workplace procedures
 - 2.6 Quality of work is monitored in accordance with workplace procedures and relevant industry standards
- 3 Test, evaluate, implement and document developed web pages**
 - 3.1 Tests and workplace procedures are developed to evaluate web page programming in accordance with development requirements
 - 3.2 Problems and bugs in web page programming are identified and rectified in accordance with development requirements
 - 3.3 Intermediate and final work reports are completed in

accordance with relevant industry standards and presented to relevant person/s

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Developing, implementing and testing hypertext mark-up language (HTML) pages must include at least four of the following features:

- relative and absolute links, images and table formatting
- cascaded styles sheets
- forms
- new browser windows
- validation of form data.
- form data input response
- form data processing
- database access
- output of database table contents
- insertion of table data to database.

Developing, implementing and testing of server scripting for database access must include at least four of the following features:

Unit Mapping Information

This unit replaces and is equivalent to UEENEED129A Develop web pages for engineering applications.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEECS0018 Develop web pages for engineering applications

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- analysing and dealing with unplanned events to provide solutions
- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements, including using risk control measures
- applying server scripting languages to scripting to developing client-side programming and validations
- applying syntax functions and features of mark-up language scripts
- completing intermediate and final work reports
- creating and rendering effective web pages
- creating and rendering pages with relative and absolute links, images and table formatting
- creating forms with relevant elements and element groupings
- developing and testing workplace procedures
- developing web pages for engineering applications
- identifying and rectifying problem and bugs in web page program
- identifying relevant development tools and software
- implementing strategies for development work
- interpreting page development requirements
- monitoring quality of work
- preparing to develop web pages for engineering applications
- providing basic web functionality
- selecting relevant development tools and software
- testing, evaluating, implementing and documenting developed web pages.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- client server architecture

- configurations and profile overview
- consideration for system architecture
- extensible mark-up language (XML)
- extensible stylesheet language (XSL) generating hypertext mark-up language (HTML) from XML
- HTML scripting
- HTML
- problem-solving techniques
- relevant development tools and software
- relevant forms
- relevant manufacturer specifications and installation instructions
- relevant job safety assessments or risk mitigation processes
- relevant server scripting languages
- relevant syntax functions and features
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace instructions, quality, policies and procedures
- wireless thin client programming.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to developing basic web pages for engineering applications
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>