Australian Government

Department of Education, Employment and Workplace Relations

ICAPRG513A Coordinate the build phase of an IT system

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

ICAPRG513A Coordinate the build phase of an IT system

Modification History

Release	Comments
Release 1	This Unit first released with *ICA11 Information and Communications Technology Training Package version 1.0*

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to coordinate activities to be carried out during the build phase and actual coding of an IT system.

The unit focuses on the day-to-day management of tasks associated with making sure that the software product is developed according to the design specifications and project plan.

Application of the Unit

This unit applies to individuals in the software development area who are required to synchronise the coding activities of a new system.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
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

1. Prepare work	1.1 Review the specifications and standards for the ***project***
	1.2 Review the project documentation for the ***development environment***
	1.3 Analyse and confirm that the development environment matches the project documentation and meets standards
	1.4 Select ***development tools***
2. Coordinate work	2.1 Determine work units based on the design
	2.2 Delegate work units to the appropriate developers
	2.3 Brief developers on standards, procedures, schedules and other ***requirements***
	2.4 Implement project management techniques to ensure that all tasks are completed on time and according to standards and the specification
3. Coordinate development environment	3.1 Implement and test changes to the development environment and document outcomes
	3.2 Update the project documentation for the development environment

Required Skills and Knowledge

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

Required skills

- analytical skills to analyse requirements and confirm environment is appropriate to the tasks involved
- communication skills to brief team members on their tasks
- literacy skills to review and write technical documents
- planning and organisational skills to manage a project
- problem-solving skills to coordinate build phase
- technical skills to:
    - identify, analyse and evaluate algorithms for a range of solutions
    - model data for identifying, analysing and evaluating a range of solutions
    - review coding work on units under testing.

Required knowledge

- client business domain to inform the system build
- client-server architecture
- current industry-accepted coding in a recognised language, including features and capabilities
- current industry-accepted database management system (DBMS) modelling techniques
- current industry-accepted hardware and software products, including their general features and capabilities
- at least three or more current principles of databases
- database design
- quality assurance practices.

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 ability to: • coordinate coding, testing, administration and graphical user interface (GUI) design • fulfil technical requirements by successfully managing allocated tasks • understand performance benchmarks and module design • control the testing process.
Context of and specific resources for assessment	Assessment must ensure access to: • design specification • software requirement specifications • system requirements • technical specifications • version control standards • appropriate learning and assessment support when required • modified equipment for people with special needs.

Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:
	• evaluation of candidate's project documentation
	• review of candidate's tested development environment and documentation
	• verbal or written questioning to assess candidate's knowledge of:
	  • software development
	  • project management
	  • testing
	• direct observation of candidate briefing developers on standards, procedures and schedules.

Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and

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	the work being performed.
	Indigenous people and other people from a non-English speaking background may need additional support.
	In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

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

Specifications may include:	• current system functionality • metrics • project plan • software requirements • technical requirements • user problem statement.
Project may include:	• business improvement process • business involved in a total organisational change • ebusiness solution involving the total organisation or part of the organisation • systems-only change.
Development environment may include:	• computer language used • development methodology • development tools • operating systems • target environments • version control systems.
Development tools may include:	• computer-aided software engineering (CASE) tools • fourth-generation language • program generator • screen generator.
Requirements may relate to:	• application • business • database • network • people in the organisation • platform • system.

Unit Sector(s)

Programming and software development