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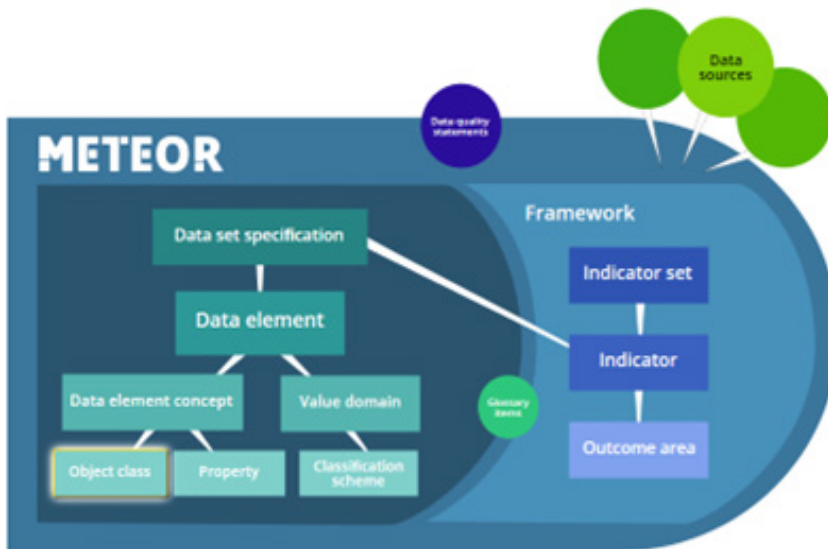
METEOR

Metadata Online Registry

meteor.aihw.gov.au

7. Data element concept business rules

7 Data element concept business rules



7.1 Introduction

A 'data element concept', commonly referred to as a 'DEC', represents a concept created by the union of one object class and one property. For example, the data element concept 'Person—date of birth' is created by the union of the object class 'Person' and the property 'Date of birth'.

As a data element concept is a concept that is described independently of any representational values, it can be thought of as a data element minus a value domain. An individual data element concept may be associated with various value domains resulting in a different data element for each association.

Remember the 'create once, use often' principle:

Before creating a new object class, it is important to check that a suitable object class does not already exist in METEOR. See section 2.2

7.1.1 For developers: Overview of data element concept attributes

Table 7.1.1.1 below provides an overview of the attributes requiring action by a developer when a data element concept is created in METEOR. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 7.1.1.1: Overview of data element concept attributes for developer action

Attribute	Definition	Obligation to complete	Section in this Chapter
Name	A single or multi-word designation assigned to the data element concept.	Mandatory	7.2.1
Synonymous name(s)	One or more synonyms for the metadata item name within the context of the given item.	Optional	7.2.2.
Definition	A concise statement that expresses the essential nature of the data element concept and its differentiation from other metadata items.	Mandatory	7.2.3
Context	A designation and/or description of the application environment or discipline in which the property definition has meaning.	Optional	7.2.4
Object class	The object class implemented in this data element concept.	Mandatory (before 'Incomplete' registration status)	7.2.5
Property	The property implemented in this data element concept.	Mandatory (before 'Incomplete' registration status)	7.2.6
Guide for use	Advice or instructions for the interpretation or application of the data element concept.	Optional	7.2.7
Collection methods	Advice or instructions for the actual capture of data.	Optional	7.2.8
Comments	Any additional information that adds to the understanding of the data element concept.	Optional	7.2.9
Submitting organisation	One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	Mandatory	7.2.10
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Completed by registrar.	7.2.11
Origin	Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.	Conditional: Complete for metadata items based on the content outside of METEOR.	7.2.12
Reference documents	Significant publication(s) and/or website(s) used in the aid of the development of the metadata item.	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.	5.2.13
Relationship type	An indicator for relationships between metadata items	Mandatory	7.2.14
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Completed by registrar.	7.2.15

Attribute	Definition	Obligation to complete	Section in this Chapter
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Completed by registrar.	7.2.16
Steward contact details	The details of at least one contact person for each listed steward organisation	Completed by registrar.	7.2.17

7.1.2 For registrars: Overview of data element concept attributes requiring action

Table 7.1.2.1 below provides an overview of the attributes requiring action by a registrar when a data element concept is submitted for review. The business rules relating to these attributes are provided in the relevant sections in this chapter.

Table 7.1.2.1: Overview of data element concept attributes for registrar action

Attribute	Definition	Obligation to complete	Section in this Chapter
Steward	The name of the organisation responsible for ongoing maintenance and management of a metadata item.	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.	7.2.11
Unresolved issues	Comments which highlight issues for data committee or registrar consideration.	Optional	7.2.15
Submitting organisation contact details	The details of at least one contact person for each listed submitting organisation	Optional	7.2.16
Steward contact details	The details of at least one contact person for the Steward organisation.	Optional	7.2.17

7.2 Attributes requiring developer or registrar action

Attributes in the data element concept template requiring action by a developer or registrar are described below.

7.2.1 Name

A single or multi-word designation assigned to the data element concept.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Data element concept name components and arrangement:	[Object class name]+em dash+[property name] Example: Person—date of birth See note 1. For information on the 'Suggest' name function

Rules:	<ol style="list-style-type: none"> 1. The object class and property name components of the data element concept name are to be written in full exactly as they are. The first letter of the property name should be changed to lower case (unless it is a proper noun). 2. An em dash ‘—’ must separate the object class name and property name components without any spaces before or after the em dash, for example, ‘Informal carer—financial assistance type’. (A quick way to insert an em dash is to use the keyboard shortcut: Alt + 0151. Alternatively, use the ‘Suggest’ name function). 3. Repetitive text in either the object class or property name components must not be removed. For example, a data element concept name consisting of the object class name ‘Address’ and the property name, ‘Address currency status’ is ‘Address—address currency status’. The following common rules for metadata also apply: 4. The name must: <ul style="list-style-type: none"> • be unique • reflect the concept being defined • be stated in the singular • avoid the use of words that imply a preselected single instance • be concise as possible. 5. The name must begin with a capital letter. The use of capital letters is only permitted at the beginning of the data element concept name, for proper nouns, or when necessary for an acceptable abbreviation or acronym (see rule 6. below). 6. The name should avoid abbreviations (including acronyms and initialisms), unless they are commonly understood or widely accepted within the context of the metadata item. See Appendix A ‘Use of abbreviations in name and definition attributes’ for further information on the use of abbreviations 7. Slashes (/) are permitted. Do not leave any spaces before or after the slash. 8. Hyphens are permitted only when used in a compound word (e.g., ‘non-admitted’). Do not leave any spaces before or after the hyphen. 9. The following are not permitted: <ul style="list-style-type: none"> • semi-colons • colons • commas (exception is if required to separate two or more terms in a name (e.g., ‘ear, nose and throat’)) • full stops • parentheses or square brackets • quotation marks
Notes	<ol style="list-style-type: none"> 1. A Suggest button appears in the data element concept template alongside the ‘name’ attribute. Once the ‘object class’ and ‘property’ components have been implemented in the data element concept, the Suggest button can be used to combine their names in order to create the data element concept name. An em dash is automatically placed between the ‘object class’ name and ‘property name’ components.

7.2.2 Synonymous name(s)

One or more synonyms for the property name within the context of the metadata item.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none">1. List any synonyms for the metadata item name which may be used to identify the item.2. Spell the first word of each synonymous name with a capital letter. Spell all other words in a synonymous name with a lower-case letter, unless referring to a proper noun. Spell out in capital letters if acronyms/abbreviations are used in synonymous name(s).3. Separate each synonymous name with a semi-colon and space. For example, synonymous names for property may include: Clinical intervention; Operation; Surgery4. End the list of synonymous names without a full stop.

7.2.3 Definition

A concise statement that expresses the essential nature of the data element concept and its differentiation from other metadata items.

Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none"> 1. The definition must reflect the data element concept's components (i.e. the object class and property). The following common rules for metadata also apply. 2. The definition should be expressed: <ul style="list-style-type: none"> • precisely and unambiguously so that the exact meaning of the metadata item is apparent from the definition • concisely without embedding the definitions of related concepts or supportive information, such as rationale, functional usage, domain or procedural information • through terms and a structure that is consistent with related definitions. 3. Do not repeat the name of the metadata item at the start of the definition. 4. The definition must be expressed as a complete, grammatically correct, descriptive phrase, sentence or paragraph, not merely through the use of synonyms or paraphrasing the name of the metadata item. 5. The definition must not contain definitions of other metadata items or underlying concepts. Rather, it should provide an explanation of WHAT is being described. It should generally not include information about the WHO, WHERE, WHEN, WHY and HOW of data collection. 6. If there is a need to define a term within the definition, a glossary item may be used. 7. The definition may use abbreviations (including acronyms and initialisms) provided they are first spelled out in full, or else are commonly understood or widely accepted within the context of the metadata item. See Appendix A 'Use of abbreviations in name and definition attributes' for further information on the use of abbreviations.
Notes	<ol style="list-style-type: none"> 1. In general, a data element concept's definition will mirror that of the property that is implemented, but will include the name of the object class. 2. See chapter 11 'Glossary item business rules' if a new glossary item needs to be created.

7.2.4 Context

A designation and/or description of the application environment or discipline in which the property definition has meaning.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none"> 1. State or describe the application environment or discipline in which the data element concept has meaning, (e.g., Palliative care). 2. Do not include the justification or reasoning for the object class.
Notes	<ol style="list-style-type: none"> 1. The context defines the setting within which the subject data has meaning. 2. The context attribute should be left blank if a metadata item is applicable in all contexts, or the context is implied by the metadata item name or definition. 3. See also section 2.6.3

7.2.5 Object class

The object class implemented in this data element concept.	
Obligation to complete:	Mandatory (before <i>Incomplete</i> registration status)
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none"> 1. Only one object class may be selected. 2. An object class must be selected before a data element concept will be considered by a registrar. 3. For data element concepts that describe people or patients with a specific condition (e.g., acute coronary syndrome, cancer, or diabetes), the object class name should begin with the term 'Person with' (e.g., 'Person with diabetes'). 4. For data element concepts which describe interventions such as medication or treatment undertaken, select the object class 'Person' when that intervention occurred outside of an event (e.g., for medication regularly taken at home), and select an event object class when that intervention occurred within an event (e.g., for medication prescribed by an ambulance officer within an acute coronary syndrome episode).
Notes	<ol style="list-style-type: none"> 1. If there is any doubt as to the most appropriate object class for a data element concept (e.g., 'Person' versus 'Patient'), select the broader, more generalised object class.

7.2.6 Property

The property implemented in this data element concept.	
Obligation to complete:	Mandatory (before <i>Incomplete</i> registration status)
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none">1. Only one property may be selected.2. A property must be selected before a data element concept will be considered by a registrar.

7.2.7 Guide for use

Advice or instructions for the interpretation or application of the data element concept.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Describe how the metadata item is intended to be interpreted or applied.
Notes:	Guide for use information is generally more applicable at the data element level where it provides information about how to use a data standard.

7.2.8 Collection methods

Advice or instructions for the actual capture of data.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	Outline any collection guidelines for the metadata item (e.g., recommended data collection instruments).
Notes:	Collection methods information is generally more applicable at the data element level where it provides information about how data are to be captured.

7.2.9 Comments

Any additional information that adds to the understanding of the data element concept.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none">1. Describe any additional information that facilitates understanding of the metadata item. For example, considerations for further development of the metadata item, potential terminology issues, or justification for the inclusion or exclusion of content.

7.2.10 Submitting organisation

One or more organisations responsible for the submission of the metadata item for endorsement as a standard.	
Obligation to complete:	Mandatory
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none"> 1. For each organisation responsible for the submission of the metadata item, state the full official organisation title at the time of submission. 2. Abbreviations and symbols should only be used when they are part of the official organisation title. 3. Conclude and separate each organisation's name with a new line (without a full stop).
Notes	<ol style="list-style-type: none"> 1. Click on down arrow to show drop-down list of departments and organisations. 2. Click on chosen organisation. 3. If you skip this process, you will not be able to proceed to change registration status to Standard when you update the status later down the track. You must fill this template in. 4. In the case of a metadata with missing submitting organisation, go back to the item and choose 'edit item' to add the submitting organisation, in order to update registration status.

7.2.11 Steward

The name of the organisation responsible for ongoing maintenance and management of a metadata item.	
Obligation to complete:	Optional: Complete if a steward has been endorsed and has agreed to perform steward role.
Completed by:	Registrar
Visibility:	All users
Rules:	<ol style="list-style-type: none"> 1. Each metadata item may be associated with only one steward. 2. The steward has responsibility for ensuring that the metadata item is kept up-to-date for all registration authorities to which it has been proposed. 3. Leave this field blank until an organisation has agreed and has been approved by a registration authority to provide ongoing maintenance and management of the metadata item. 4. State the complete and official organisation title for the steward (including a committee where necessary). 5. Abbreviations and symbols should only be used when they are part of the official organisation title.

7.2.12 Origin

Any publication(s), website(s), organisation(s) and/or committee(s) from which any content of the metadata item originates.

Obligation to complete:	Conditional: Complete for metadata items based on the content outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none">1. Origin references should comply with the referencing guidelines in Appendix C 'Referencing guidelines'.2. List the full reference for any in-text references cited in the body of that metadata item.3. Conclude and separate each reference with a new line (without a full stop).

7.2.13 Reference documents

Significant publication(s) and/or website(s) that contributed to the development of the metadata item which are not a direct source of metadata content

Obligation to complete:	Conditional: Complete for metadata items developed in consultation with a significant publication and/or website outside of METEOR.
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none">1. References should comply with the referencing guidelines in Appendix C 'Referencing guidelines'.2. Conclude and separate each reference with a new line (without a full stop).
Notes	References included in the 'reference' attribute are not included in the 'origin' attribute and vice versa.

7.2.14 Relationship type

An indicator for relationships between metadata items.	
Obligation to complete:	Optional
Completed by:	Developer
Visibility:	All users
Rules:	<ol style="list-style-type: none"> Relationships may be created between any two metadata items. Note that some relationship types can only be created to link items of the same metadata type (e.g., between two data elements). See also relationships may be created to link items of a different metadata type (e.g., a between a property and a value domain). Related metadata relationships should not duplicate information stored or available elsewhere in METEOR For example, where data element A implements data element concept B, this is already explicit in both the name of the data element and the Data element concept attributes of the data element. A related metadata relationship would thus be superfluous. Similarly, if data element C is normally collected together with data element D, this will be apparent from the fact that both occur in the same DSS. Valid relationships are listed in the table F1. METEOR will automatically create the complementary relationship within the second metadata item (listed in the second column of the table F1). A See also relationship may be used to draw the reader's attention to another element, however should not take the place of another valid relationship type, or duplicate information stored elsewhere. A See also relationship should be applied judiciously, i.e. where it is critical for the reader to know that the other item exists, and not just because there are similarities between the linked elements. When creating a Superseded relationship, the registration status of the superseded item must be changed to Superseded once the new item becomes Standard. To create a relationship: <ul style="list-style-type: none"> select a value from the 'relationship type' drop-down list click the Add button to open the metadata item browser select the metadata item and click the Add button select or enter the item you wish to create a relationship to and click the Add button the relationship will then be listed on the metadata item creation window. <p>The relationship can be deleted by clicking on the Cancel button.</p>
Notes	See Appendix F for more detailed information on relationship types and their associated meanings.

7.2.15 Unresolved issues

Comments which highlight issues for data committees or registrar consideration.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	All users
Rules:	This field should be used to document issues which are relevant to the quality of the metadata item and its management within METEOR (e.g., any recommended changes awaiting approval from a data committee).
Notes	This attribute can only be created and viewed by registrars.

7.2.16 Submitting organisation contact details

The details of at least one contact person for each listed submitting organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	<ol style="list-style-type: none">1. Approval from each submitting organisation contact person must be provided before any contact information is stored within METEOR.2. For each submitting organisation contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.

7.2.17 Steward contact details

The details of at least one contact person for the steward organisation.	
Obligation to complete:	Optional
Completed by:	Registrar
Visibility:	Registrar
Rules:	<ol style="list-style-type: none">1. Approval from the steward contact person must be received before any contact information is stored within METEOR.2. For each steward contact, list their name, position title, organisational unit, telephone number and email address.
Notes	This attribute is only visible to registrars.