

ABAP OO Definitions

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- Public attributes
 - Private attributes
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- Public attributes

Public attributes are defined in the PUBLIC section and can be viewed and changed from outside the class. There is direct access to public attributes. As a general rule, as few public attributes should be defined as possible. PUBLIC SECTION. DATA: Counter type i. Private attributes

Private attributes are defined in the PRIVATE section. They can only be viewed and changed from within the class. There is no direct access from outside the class. PRIVATE SECTION. DATA: name(25) TYPE c, planetype LIKE saplane-planetyp, Instance attributes

There exist one instance attribute for each instance of the class, thus they exist separately for each object. Instance attributes are declared with the DATA keyword. Static attributes

Static attributes exist only once for each class. The data are the same for all instances of the class, and can be used e.g. for instance counters. Static attributes are defined with the keyword CLASS-DATA. PRIVATE SECTION.

CLASS-DATA: counter type i, Public methods

Can be called from outside the class PUBLIC SECTION.

METHODS: set_attributes IMPORTING p_name(25) TYPE c,
p_planetype LIKE saplane-planetyp,

Private methods

Can only be called from inside the class. They are placed in the PRIVATE section of the class. Constructor method

Implicitly, each class has an instance constructor method with the reserved name constructor and a static constructor method with the reserved name class_constructor.

The instance constructor is executed each time you create an object (instance) with the CREATE OBJECT statement, while the class constructor is executed exactly once before you first access a class.

The constructors are always present. However, to implement a constructor you must declare it explicitly with the METHODS or CLASS-METHODS statements. An instance constructor can have IMPORTING parameters and exceptions. You must pass all non-optional parameters when creating an object. Static constructors have no parameters. Static constructor

The static constructor is always called CLASS_CONSTRUCTOR, and is called automatically before the class is first accessed, that is before any of the following actions are executed: Creating an instance using CREATE_OBJECT Addressing a static attribute using <classname>-><attribute> Calling a static attribute using CALL METHOD Registering a static event handler Registering an event handler method for a static event

The static constructor cannot be called explicitly. Protected components

When we are talking subclassing and inheritance there is one more component than Public and Private, the Protected component. Protected components can be used by the superclass and all of the subclasses. Note that Subclasses cannot access Private components. Polymorphism

Polymorphism: When the same method is implemented differently in different classes. This can be done using inheritance, by redefining a method from the superclass in subclasses and implementing it differently.