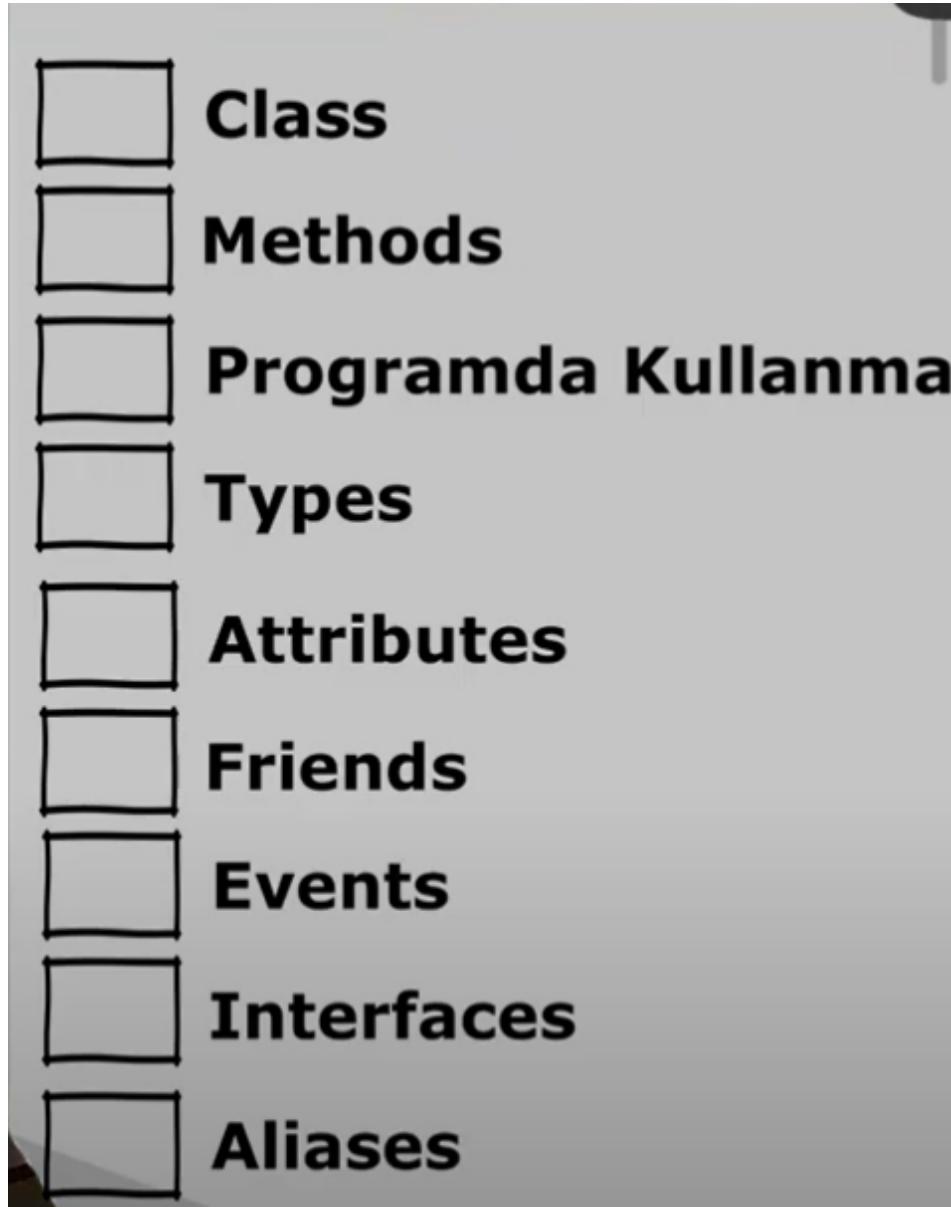


# SAP ABAP Tutorial 9 Class and Methods

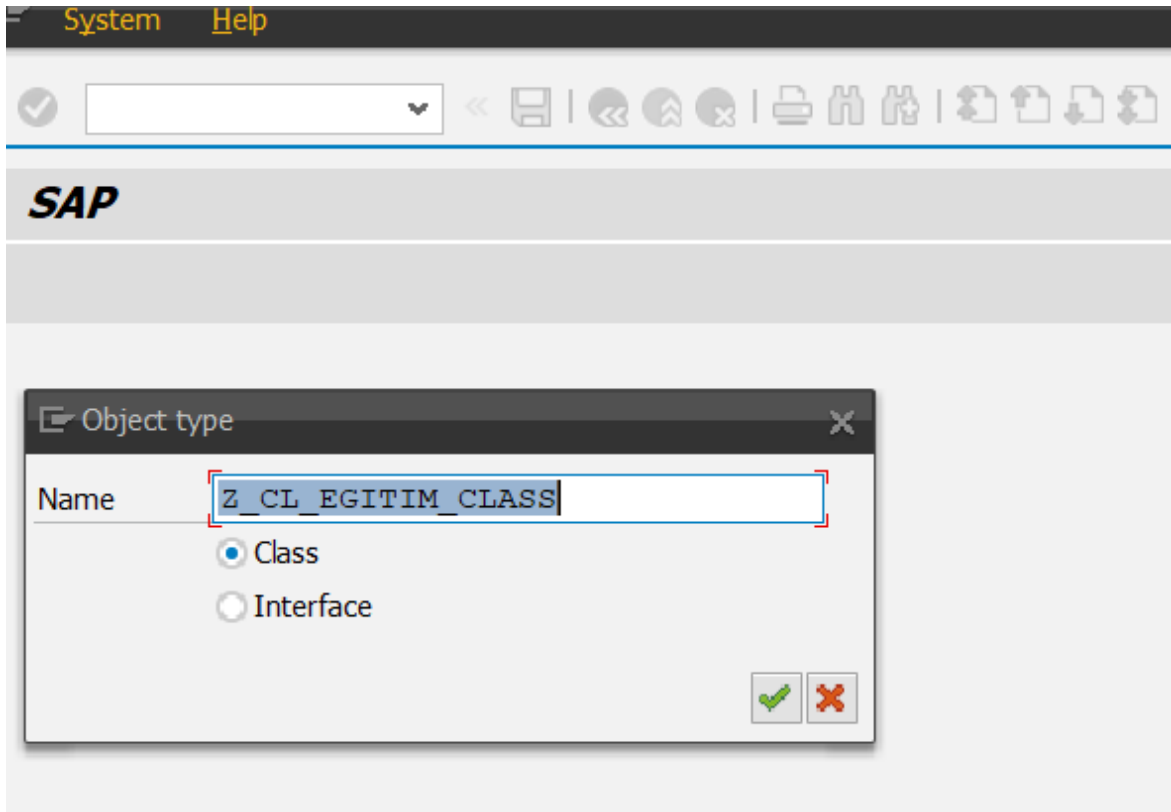
## - 07.03.2023

*İncelenecek bölümler;*



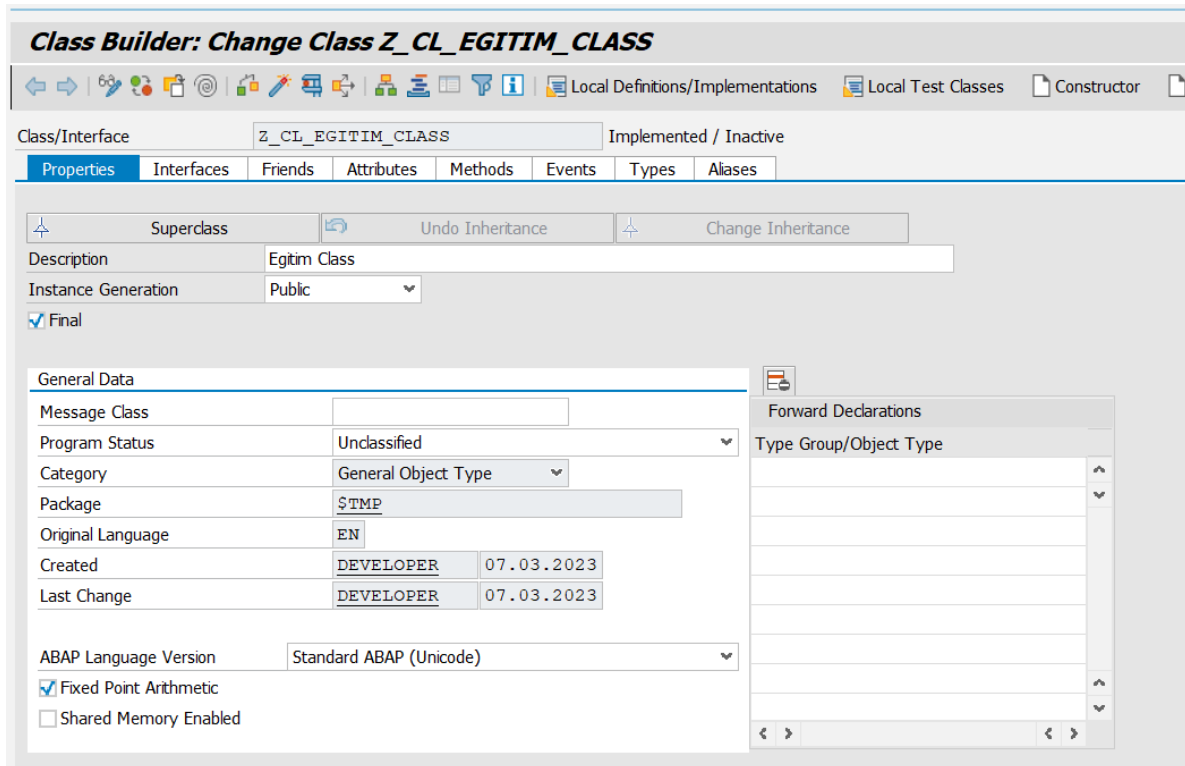
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Yeni bir işlem kodumuz olan **SE24**'ü kullanmaya başlıyoruz.



Şimdilik class olarak devam ediyoruz.

Oluşturmuş olduğumuz class'ın ilk hali;



Method ile devam ediyoruz;

**Class Builder: Change Class Z\_CL\_EGITIM\_CLASS**

Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Inactive

Properties Interfaces Friends Attributes **Methods** Events Types Alases

Parameters Exceptions Sourcecode

Method	Level	Visibility	Description
SUM_NUMBERS	Instance Method	Public	sum numbers

**Class Builder: Change Class Z\_CL\_EGITIM\_CLASS**

Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Active

Properties Interfaces Friends Attributes **Methods** Events Types Alases

Parameters of Method: SUM\_NUMBERS

Parameter	Type	P...	O...	Typing Method	Associated Type	Default Value	Description
IV_NUM1	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4		Natural number
IV_NUM2	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4		Natural number
EV_RESULT	Exporting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Type	INT4		Natural number

Parametre tanımlamalarını da yapıp SourceCode giriyoruz ve oraya da birkaç ekleme yapıp ardından execute ediyoruz;

**Class Builder Class Z\_CL\_EGITIM\_CLASS Change**

Method: SUM\_NUMBERS Active

```

1 METHOD sum_numbers.
2   ev_result = iv_num1 + iv_num2.
3 ENDMETHOD.

```

**Test Class Z\_CL\_EGITIM\_CLASS**

TestObject->

Case-Sensitive

Z\_CL\_EGITIM\_CLASS {O:13\*\CLASS=Z\_CL\_EGITIM\_CLASS}

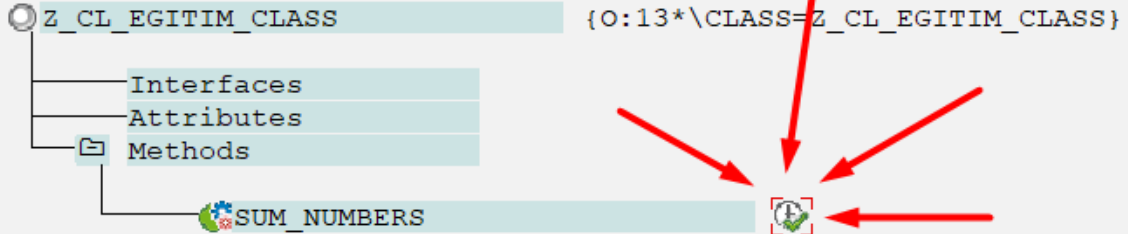
- Interfaces
- Attributes
- Methods
  - SUM\_NUMBERS

## Test Class Z\_CL\_EGITIM\_CLASS

   Handler

TestObject->

Case-Sensitive ☐



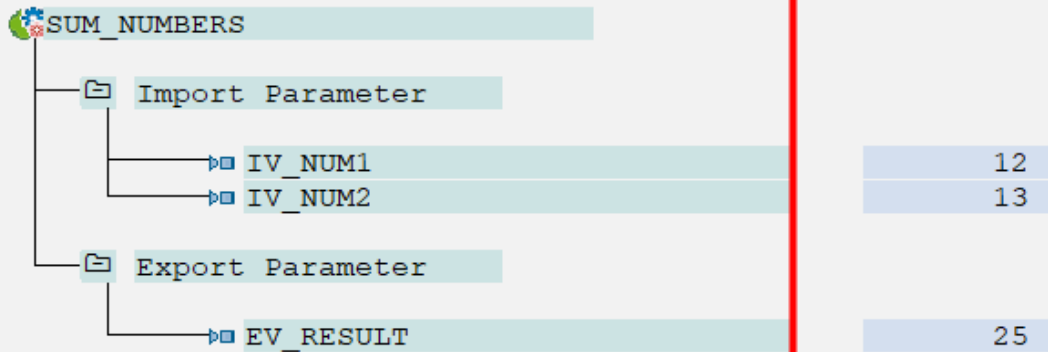
## Test Method SUM\_NUMBERS: Display Results



TestObject->SUM\_NUMBERS()

Case-Sensitive ☐

















Runtime: 2 Microseconds



**PRIVATE** yapıldığı zaman görüldüğü gibi method detayları gelmemiş oldu.

## Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

← → | | | Local Definitions/Implementations Local Test Class

Class/Interface		Z_CL_EGITIM_CLASS		Implemented / Active			
Properties	Interfaces	Friends	Attributes	Methods	Events	Types	Aliases
Parameters		Exceptions	Sourcecode	       			       
Method			Level	Visibility	M...	Description	
SUM_NUMBERS			Instance Method	Public		sum numbers	
SUM_NUMBERS_PRIVATE			Instance Method	Private		sum numbers	

## Test Class Z\_CL\_EGITIM\_CLASS

Handler

TestObject->

Case-Sensitive ☐



```
DATA: gv_egitim_class TYPE REF TO z_cl_egitim_class.
DATA: gv_num1 TYPE int4,
      gv_num2 TYPE int4,
      gv_result TYPE int4.

START-OF-SELECTION.

create OBJECT gv_egitim_class.
gv_num1 = 12.
gv_num2 = 15.
gv_egitim_class->sum_numbers(
  EXPORTING
    iv_num1 = gv_num1 " Natural number
    iv_num2 = gv_num2 " Natural number
  IMPORTING
    ev_result = gv_result " Natural number
).

WRITE: gv_result.
```



## ***Dark Mode Test***

Dark Mode Test

27

**Statik method;**

```
DATA: gv_egitim_class TYPE REF TO z_cl_egitim_class.
DATA: gv_num1 TYPE int4,
      gv_num2 TYPE int4,
      gv_result TYPE int4.
```

```
START-OF-SELECTION.
```

```
CREATE OBJECT gv_egitim_class.
gv_num1 = 12.
gv_num2 = 15.
gv_egitim_class->sum_numbers(
  EXPORTING
    iv_num1 = gv_num1 " Natural number
    iv_num2 = gv_num2 " Natural number
  IMPORTING
    ev_result = gv_result " Natural number
).
```

```
WRITE: gv_result.
```

```
z_cl_egitim_class=>sum_numbers_v2( ).
```

Statik ve instance method arasındaki fark statik metotta direkt class ismini yazarak erişilebiliyorken instance 'da onu referans alan bir obje oluşturup create ettikten sonra oluşturabiliyoruz.

### Types alanı;

Buradan istediğimiz isimde belirli bir type'ı referans alan type oluşturabiliyoruz, örneğin aşağıda **number\_typ** tipinde bir type oluşturduk fakat bu aslında int4, çünkü int4'ü referans alıyor.

### Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Active (revised)

Properties	Interfaces	Friends	Attributes	Methods	Events	Types	Aliases
<div> <div>Properties</div> <div> <div>Filter</div> </div> </div>							
Type	Visibility	Typing	Associated T...	Description			
NUMBER_TYP	Public	Type	INT4	Natural number			

### Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

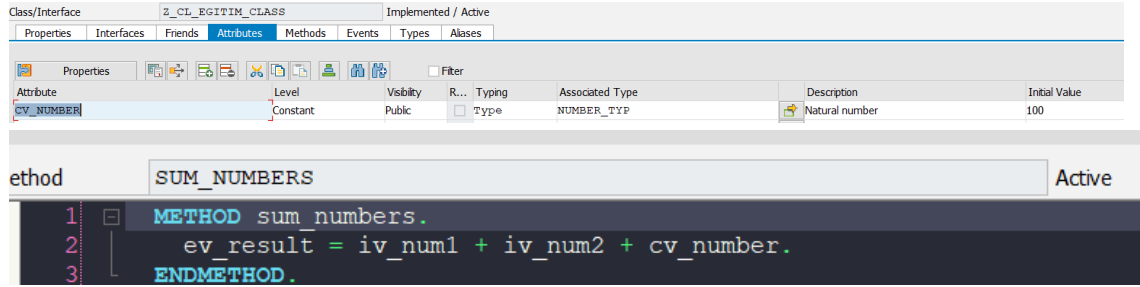
Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Active (revised)

Properties	Interfaces	Friends	Attributes	Methods	Events	Types	Aliases
<div> <div>Parameters of Method</div> <div> <div>SUM_NUMBERS</div> </div> </div>							
Parameter	Type	P...	O...	Typing Method	Associated Type	Default Value	Description
IV_NUM1	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4		Natural number
IV_NUM2	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4		Natural number
EV_RESULT	Exporting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Type	NUMBER_TYP		Natural number

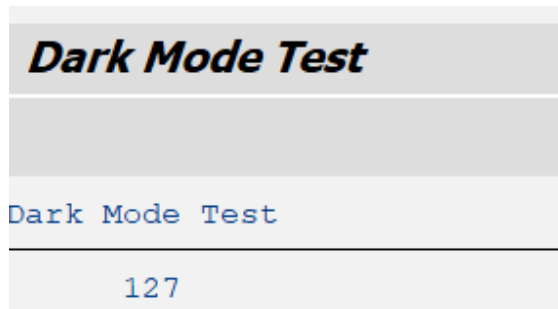
Görüldüğü gibi ev\_result'un type şeklini "number typ" vermiş olduk.

## Attributes;

Belirli parametreleri öncesinden tanımamıza yarayan alan olarak geçmektedir.

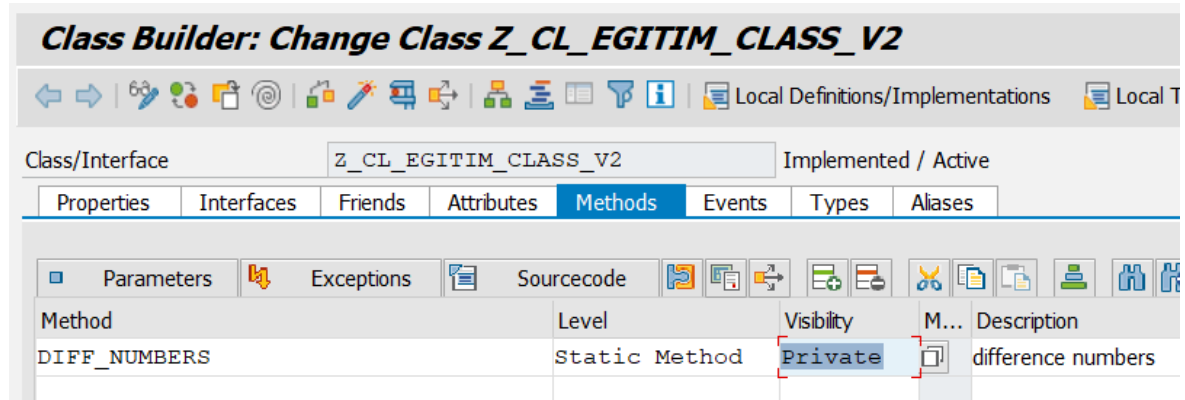


Ve sonuç olarak sabit atadığımız değer de dahil olduğundan dolayı sonuç 127 çıkmış olacak;



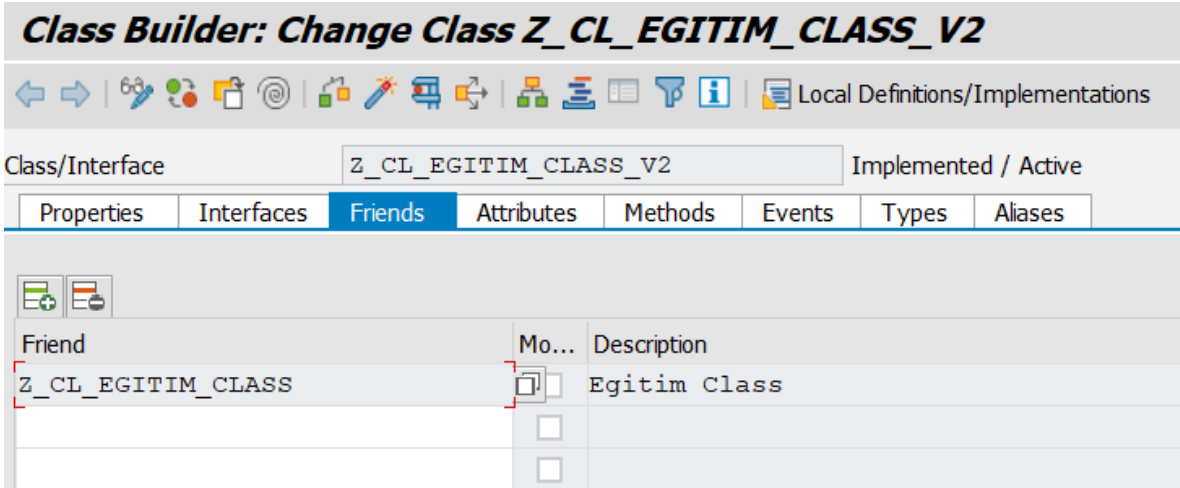
## Friends;

Başka bir class'n methodunu kullanmamıza yarayan yapıdır.



Örneğin burada diff\_numbers methodu'nun görünebilirliği Private durumda ve ulaşılabilir durumda değil. Bunu z\_cl\_egitim\_class'a ulaştırabilmek için onu friends kısmında tanımlıyoruz;

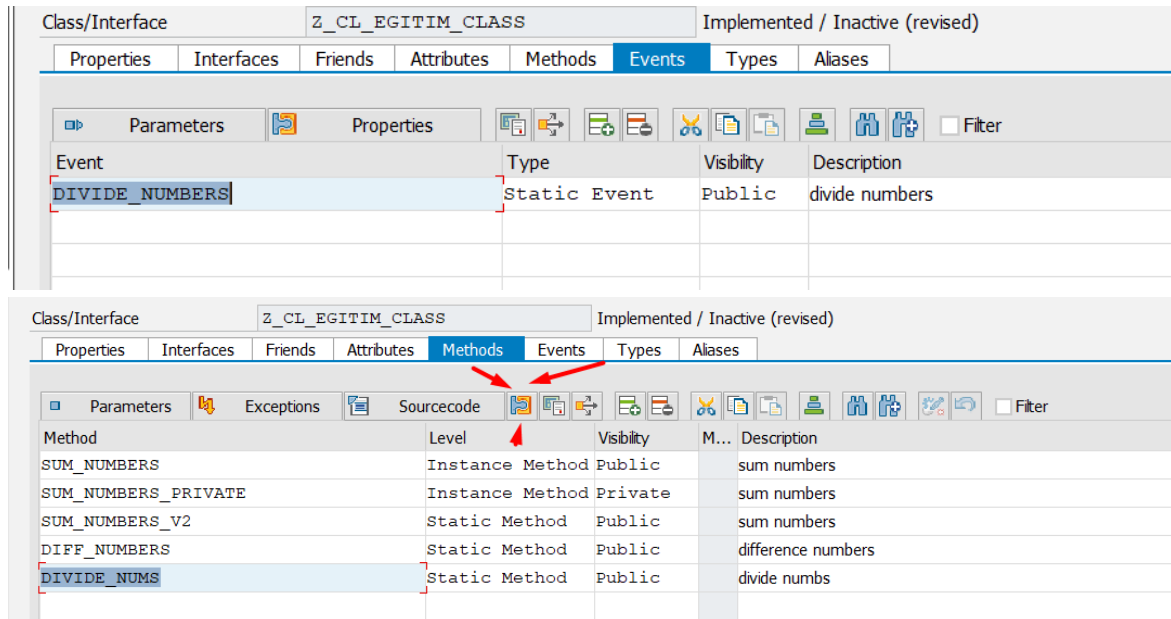




Ve böylece z\_cl\_egitim\_class\_v2 artık z\_cl\_egitim\_class içerisinde görünür durumda.

EVENTS;

Parametreler tanımlayıp sourcecode yazmadan istenilen her yerde kullanılabilecek yapıda olan konudur.



Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Inactive (revised)

Properties Interfaces Friends Attributes **Methods** Events Types Aliases

Method	Level	Visibility	M...
SUM_NUMBERS	INSTANCE METHOD	PUBLIC	
SUM_NUMBERS_PRIVATE	INSTANCE METHOD	PRIVATE	
SUM_NUMBERS_V2	STATIC METHOD	PUBLIC	
DIFF_NUMBERS	STATIC METHOD	PUBLIC	
DIVIDE_NUMS	STATIC METHOD	PUBLIC	

Change Method DIVIDE\_NUMS

Object Type: Z\_CL\_EGITIM\_CLASS

Method: DIVIDE\_NUMS

Description: divide numbs

Visibility: ☒ Public ☐ Protected ☐ Private

Method: ☒ Static ☐ Instance

☐ Abstract

☐ Final

☒ Event Handler for

Class/Interface: Z\_CL\_EGITIM\_CLASS

Event: DIVIDE\_NUMBERS

☐ Modeled

☐ Editor lock

☐ Active

Created by: DEVELOPER 07.03.2023

Last changed by (Defn):

Last changed by (Imp.): DEVELOPER 07.03.2023

Change

Parameters of Method: DIVIDE\_NUMS

Parameters Methods Exceptions Sourcecode Properties **Event Parameters**

Parameter	Type	P...	O...	Typing Method	Associated Type
<u>IV_NUM1</u>	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4
IV_NUM2	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4
EV_RESULT	Importing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Type	INT4

Copy Event Parameters

## INTERFACE and ALIASES

### Class Builder: Change Interface Z\_CL\_EGITIM\_INTERFACE

Interface: Z\_CL\_EGITIM\_INTERFACE Implemented / Inactive

Properties Interfaces **Attributes** **Methods** Events Types Aliases

Parameters Exceptions

Method	Level	M...	Description
<u>MULT_NUMBERS</u>	Static Method		multiply numbers

### Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

Class/Interface: Z\_CL\_EGITIM\_CLASS Implemented / Active

Properties **Interfaces** Friends Attributes Methods Events Types Aliases

Properties Filter

Interface	Abstract	Final	Modeled...	Description
<u>Z_CL_EGITIM_INTERFACE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Egitim Interface

## Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

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Class/Interface Z\_CL\_EGITIM\_CLASS Implemented / Active

Properties Interfaces Friends Attributes **Methods** Events Types Aliases

Method	Level	Visibility	M...	Description
Z_CL_EGITIM_INTERFACE~MULT_NUMBERS	Static Method	Public		multiply numbers
SUM_NUMBERS	Instance Method	Public		sum numbers
SUM_NUMBERS_PRIVATE	Instance Method	Private		sum numbers
SUM_NUMBERS_V2	Static Method	Public		sum numbers
DIFF_NUMBERS	Static Method	Public		difference numbers
DIVIDE_NUMS	Static Method	Public	🔗	divide numbs

## Class Builder: Change Class Z\_CL\_EGITIM\_CLASS

← → 🔍 📄 📁 📌 📊 📈 📉 📏 📐 📑 📒 📓 📔 📕 📖 📗 📘 📙 📚 📛 📞 📟 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿

Class/Interface Z\_CL\_EGITIM\_CLASS Implemented / Inactive

Properties Interfaces Friends Attributes Methods Events Types **Aliases**

Interface Component	T...	Visibility	Alias
Z_CL_EGITIM_INTERFACE~MULT_NUMBERS	🔗	Public	MULT_NUMS