# 1. SAP RAP Project

## 1.1 Get Service Key

<https://account.hanatrial.ondemand.com/trial/#/globalaccount/67ee94cd-63cb-44a8-9fa9-6fb5cab062f1/boosters>

A screenshot of a computer

Description automatically generated

Click en “Start” y nos despliega la popup para bajar el “Service Key” requerido mas adelante para conectarnos a la cuenta BTP

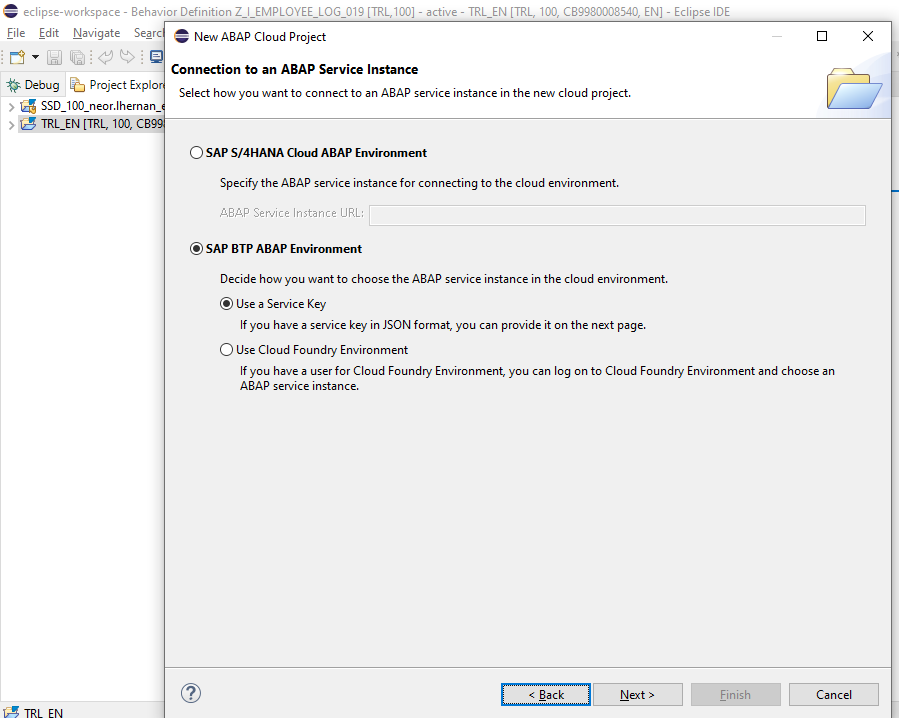
A screenshot of a computer

Description automatically generated

## 1.2 Conect Eclipse with Account BTP

A screenshot of a computer

Description automatically generated



Importamos el archivo del “Service Key” que habíamos bajado en el paso de preparar una cuenta ABAP Trial

A screenshot of a computer program

Description automatically generated

La conexión fue satisfactoria y se despliega la ventana para habilitar el Logon, Click en “Copy Logon URL to Clipboard” y lo pego en el explorador.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

## 1.3 Create Project ZPRAP\_YC

A screenshot of a computer

Description automatically generated

Se ha creado el proyecto ABAP CLOUD ZPRAP\_YC

A screenshot of a computer

Description automatically generated

## 1.4 Create Package ZRAP\_YC

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

El paquete ha sido creado

A screenshot of a computer

Description automatically generated

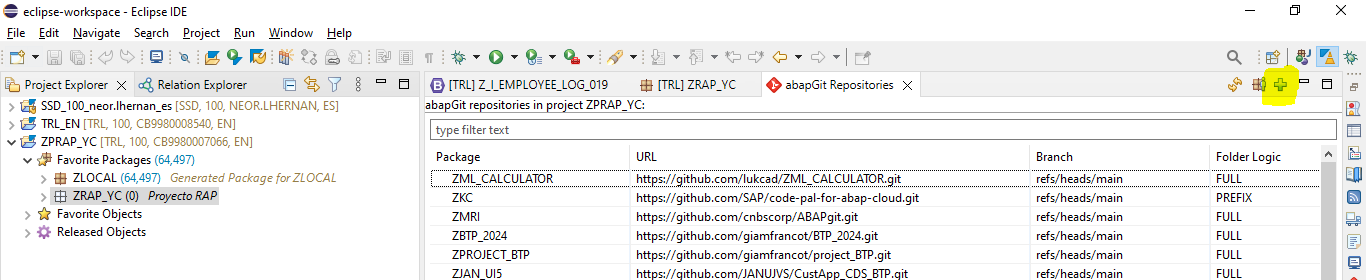
## 1.5 Link AbapGit Repository

Se crea nuevo repositorio para el proyecto RAP SAP

A screenshot of a computer

Description automatically generated

Se hace conexión en eclipse con el nuevo repositorio



Repositorio Git:

<https://github.com/Yeicorr/ZPRAP_YC.git>

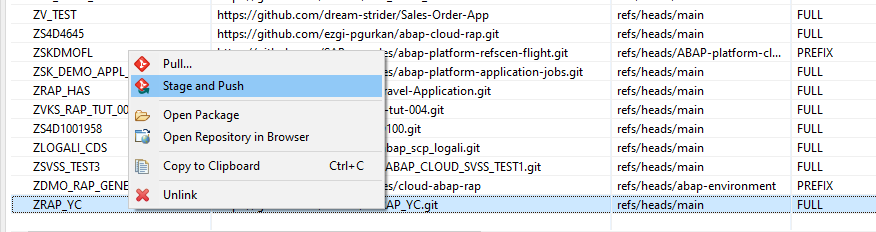
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Se ha agregado el link del repositorio y se hace el respaldo con click en “Stage and Push”



A screenshot of a computer

Description automatically generated

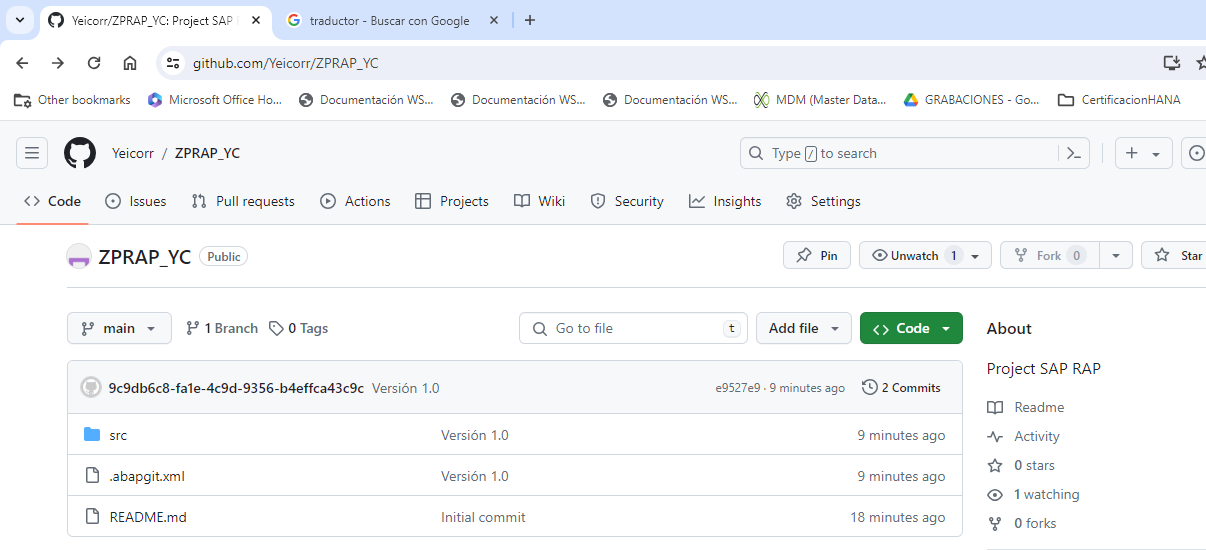
A screenshot of a computer

Description automatically generated

A screenshot of a message

Description automatically generated

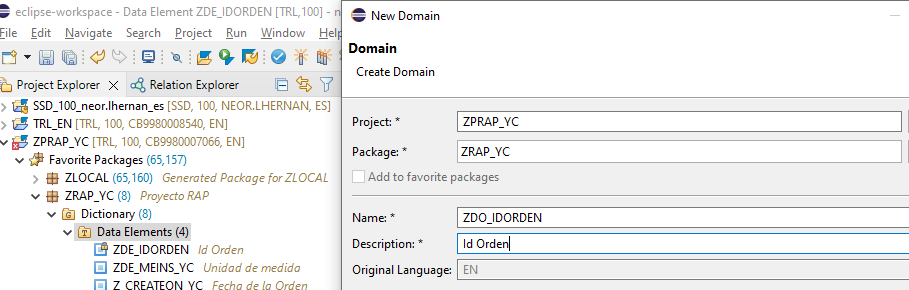
Se identifican los cambios en el repositorio



## 1.6 Modelo de Datos

### 1.6.1 Dominios

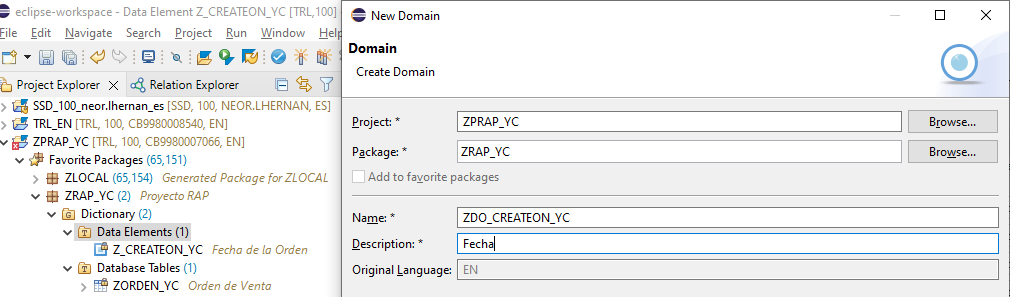
#### Dominio Id Orden



A screenshot of a computer

Description automatically generated

#### Dominio para la fecha



A screenshot of a computer

Description automatically generated

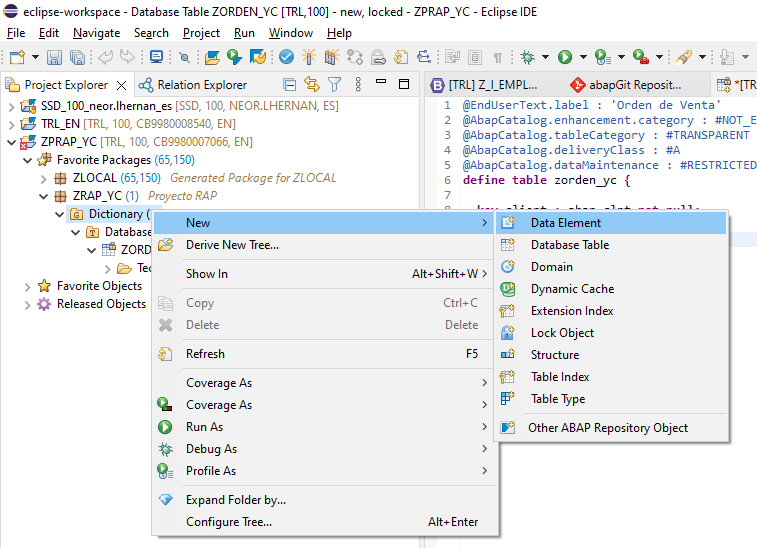
#### Dominio para la unidad de medida

A screenshot of a computer

Description automatically generated

### 1.6.2 Elementos de datos

Se crean los elementos de datos requeridos para el modelo



#### Id de Orden

A screenshot of a computer

Description automatically generated

#### Fecha de la orden

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

#### Fecha de Entrega de la orden

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

#### Unidad de Medida

A screenshot of a computer

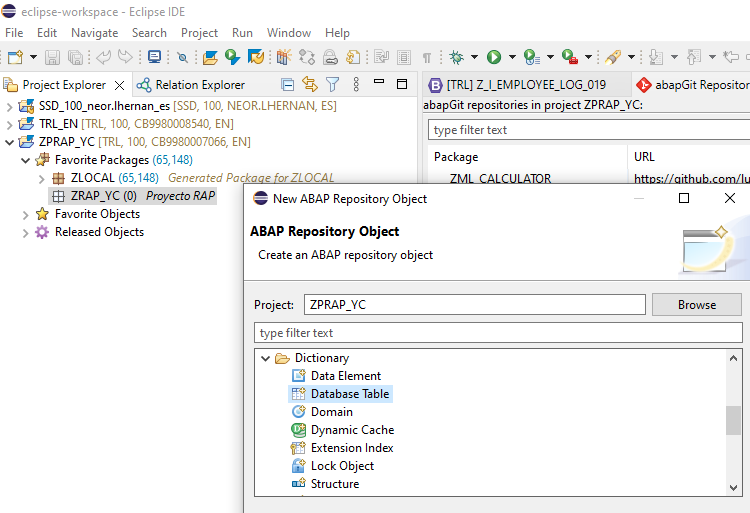
Description automatically generated

A screenshot of a computer

Description automatically generated

### 1.6.3 Tablas

Creamos las tablas requeridas para el modelo

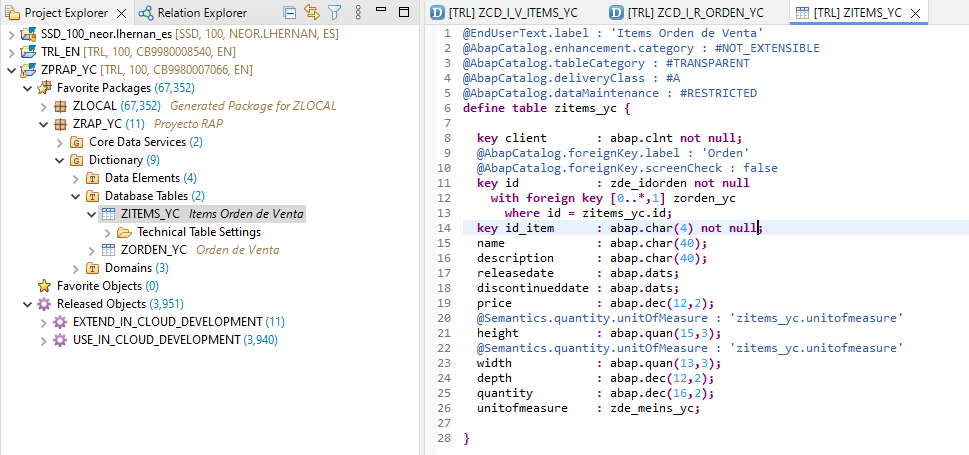


A screenshot of a computer

Description automatically generated

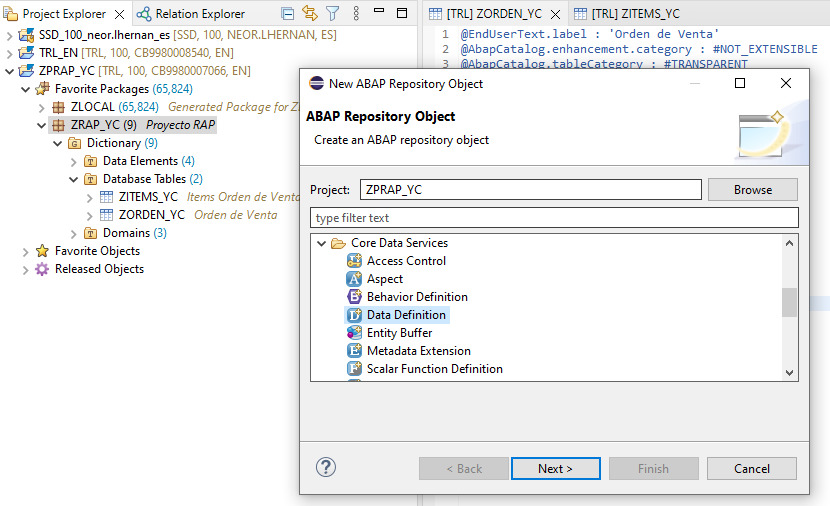
A screenshot of a computer

Description automatically generated

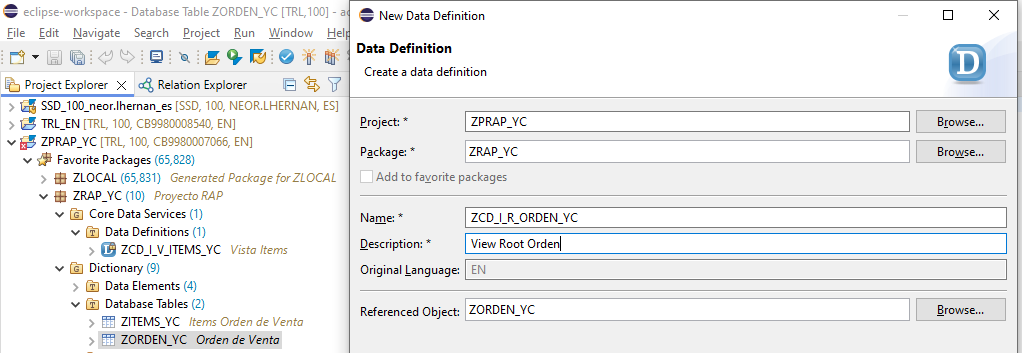


## 1.7 CDS – Core Data Services

### 1.7.1 Data Definition



#### 1.7.1.1 CDS View Root Orden



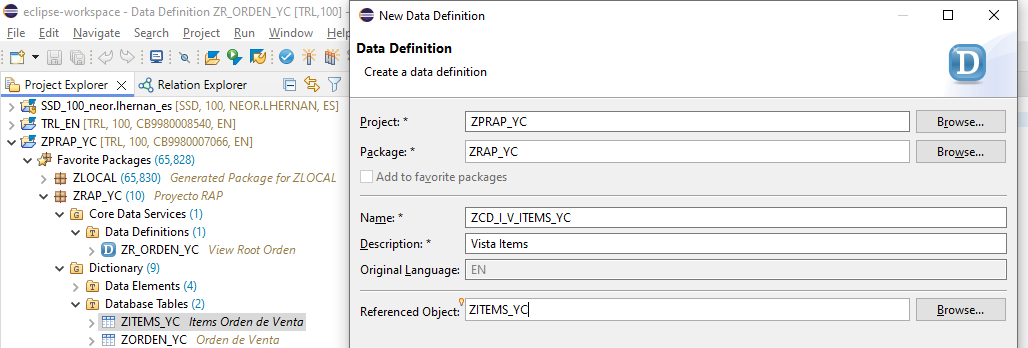
A screenshot of a computer

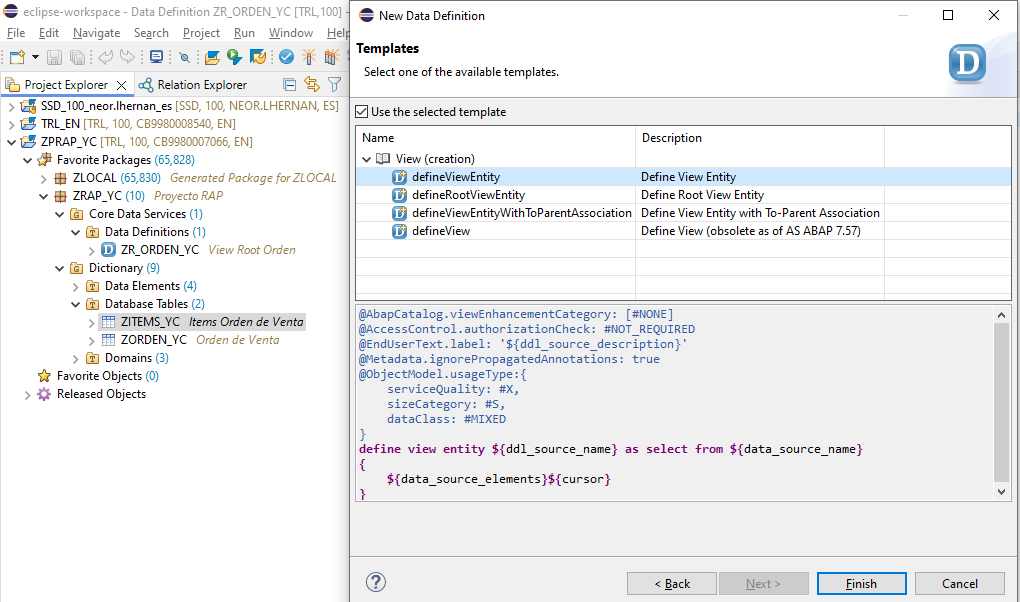
Description automatically generated

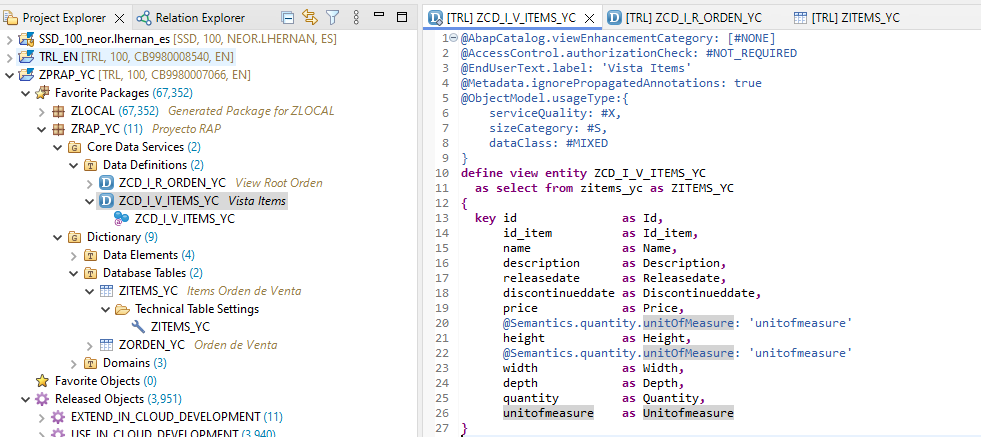
A screenshot of a computer

Description automatically generated

#### 1.7.1.2 CDS View Items Orden







Se adiciona el key en el id\_item por errores posteriores, quedando así:

A white background with black text

Description automatically generated

### 1.7.2 Composition / association

#### 1.7.2.1 CDS View Root Orden (Composition)

A screenshot of a computer screen

Description automatically generated

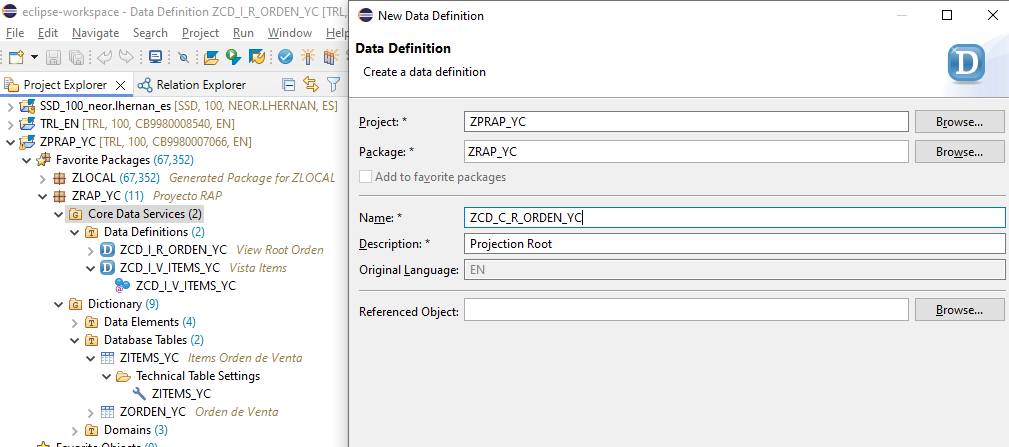
#### 1.7.2.2 CDS View Items (Association)

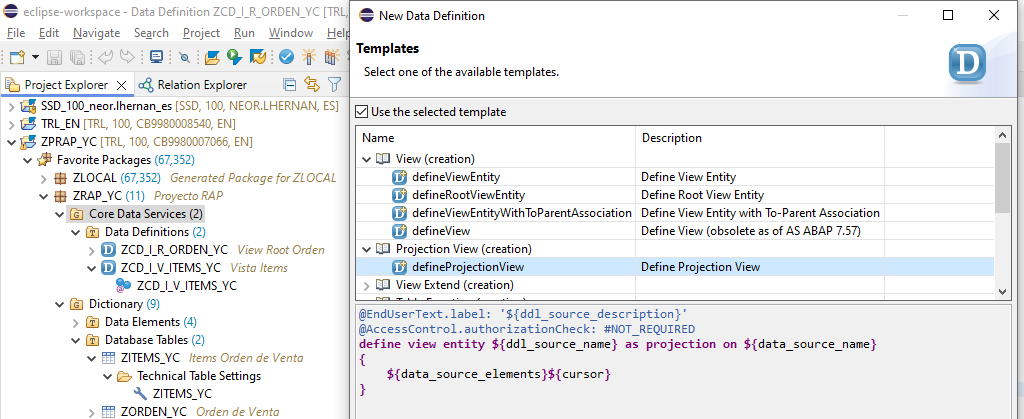
A screenshot of a computer

Description automatically generated

## 1.7.3 Projection Root/View

### 1.7.3.1 Projection Root

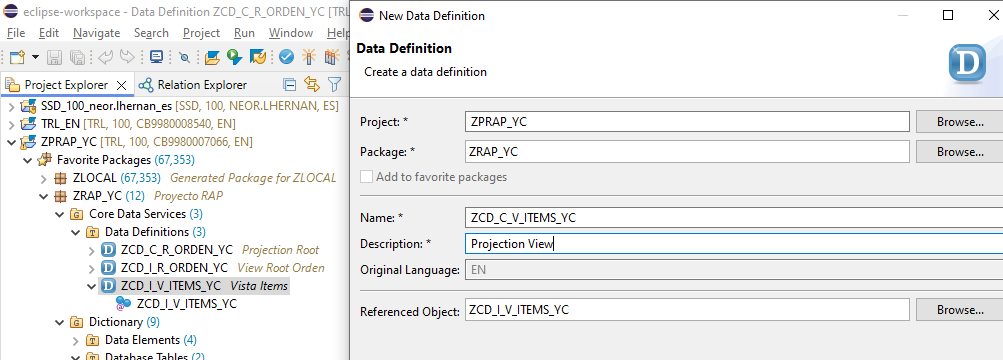




A screenshot of a computer screen

Description automatically generated

### 1.7.3.2 Projection View



A screenshot of a computer

Description automatically generated

A screenshot of a computer

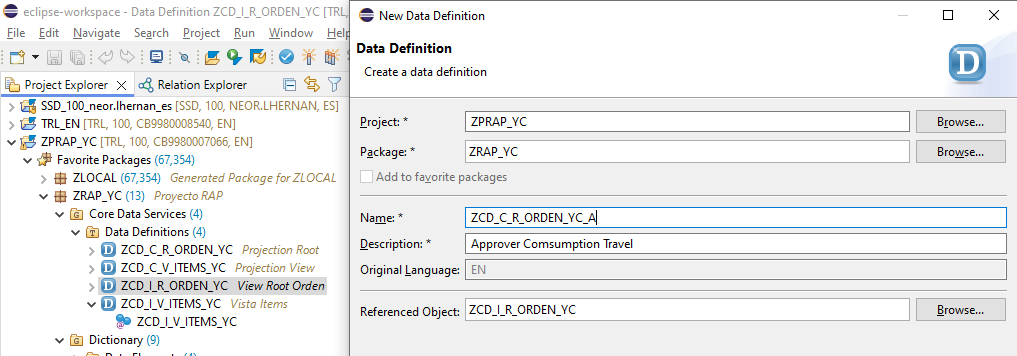
Description automatically generated

Se adiciona el key en el id\_item por errores posteriores, quedando así:

A black and yellow text

Description automatically generated

### 1.7.3.3 Projection Root Approval



A screenshot of a computer

Description automatically generated

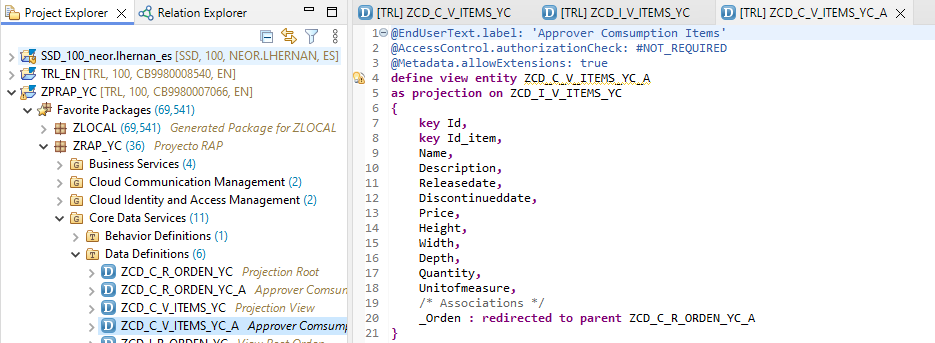
### 1.7.3.4 Projection Root Approval Items

A screenshot of a computer

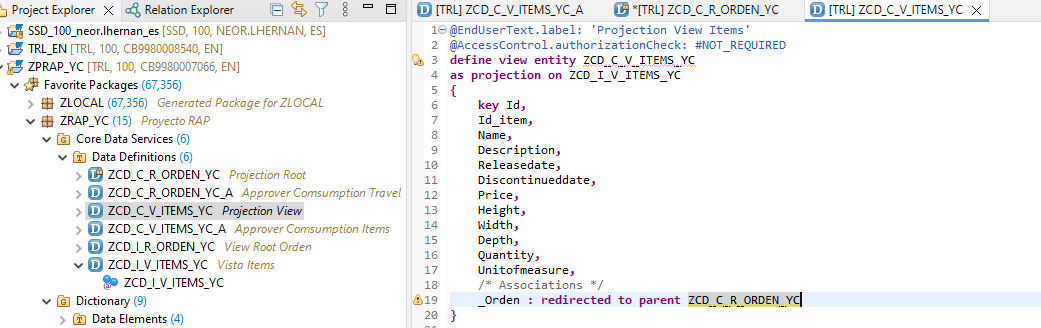
Description automatically generated

A screenshot of a computer

Description automatically generated



### 1.3.4.5 Redirected – Parent / Composition



A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

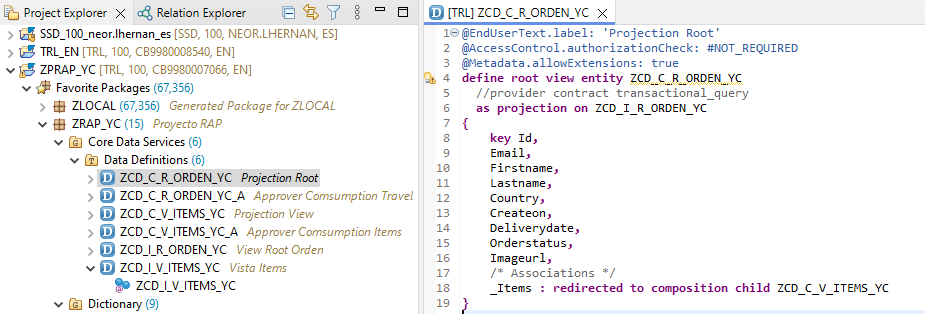
Se adiciona el key en el id\_item por errores posteriores, quedando así:

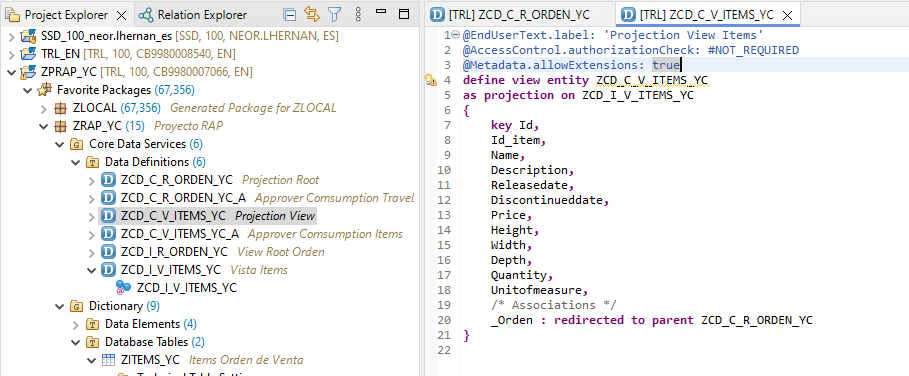
A computer screen shot of a computer code

Description automatically generated with medium confidence

## 1.8 Metadata Extension

Se agrega anotación @Metadata.allowExtensions: true en las projection view creadas





Se adiciona el key en el id\_item por errores posteriores, quedando así:

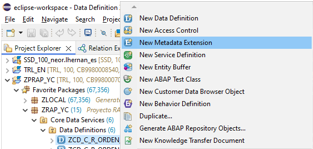
A computer code with text

Description automatically generated

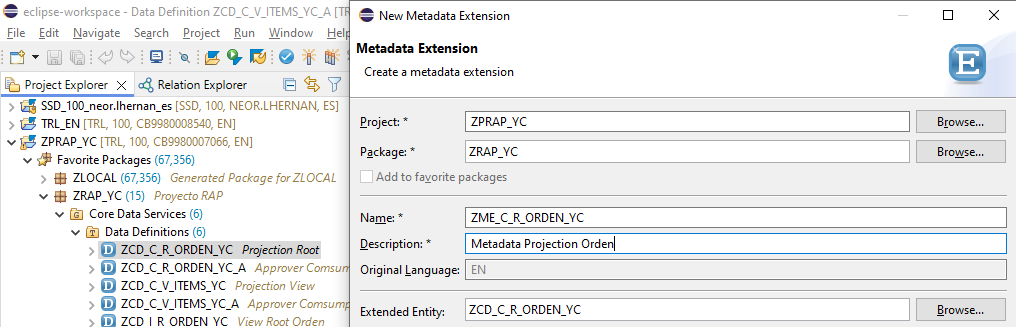
A screenshot of a computer

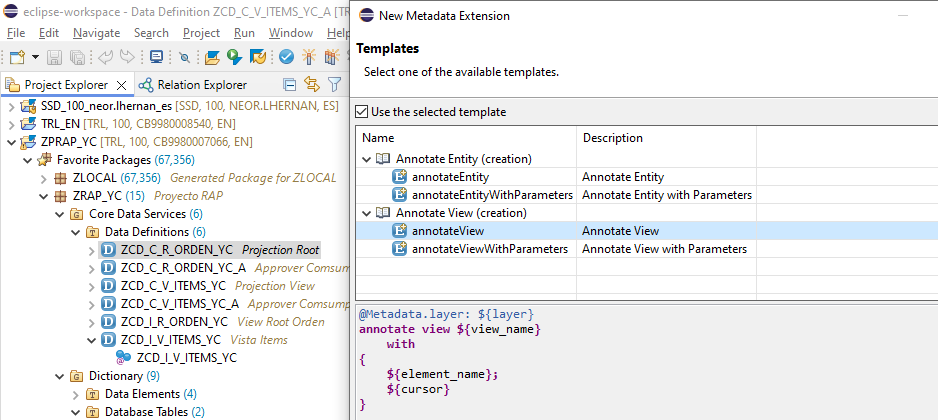
Description automatically generated

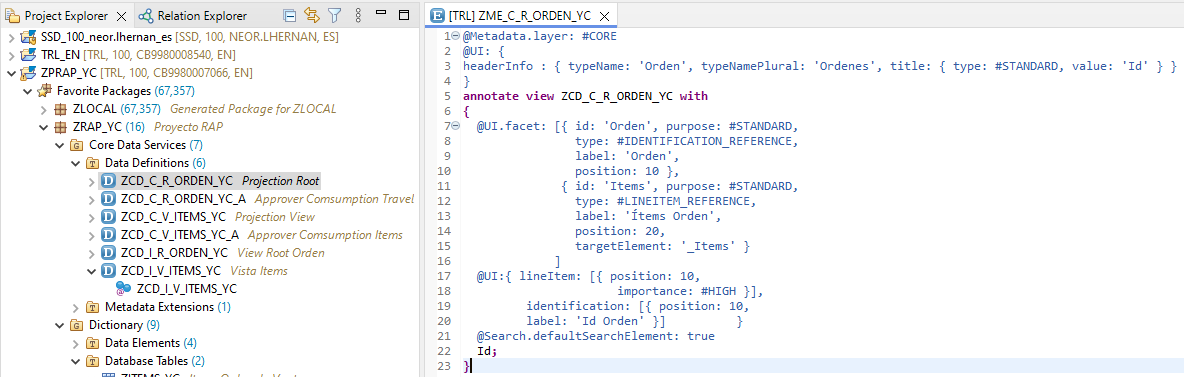
Creamos los archivos de “Metadata Extension” sobre las projection view

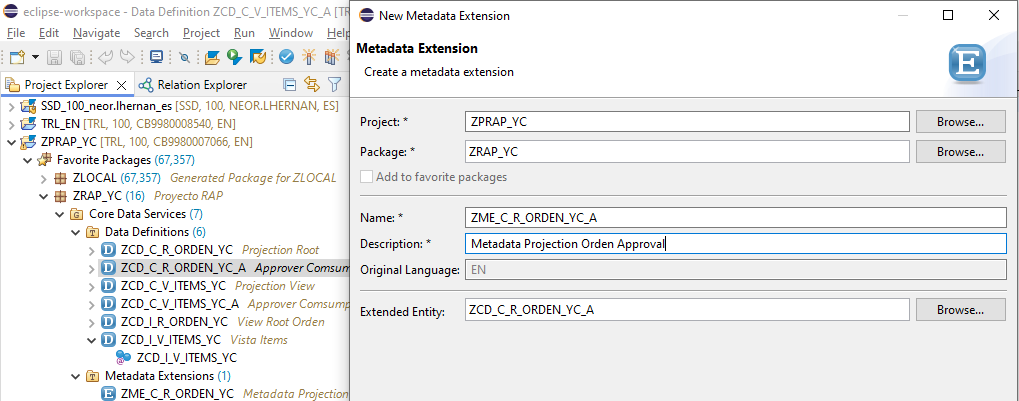


### 1.8.1 Metadata Projection Root



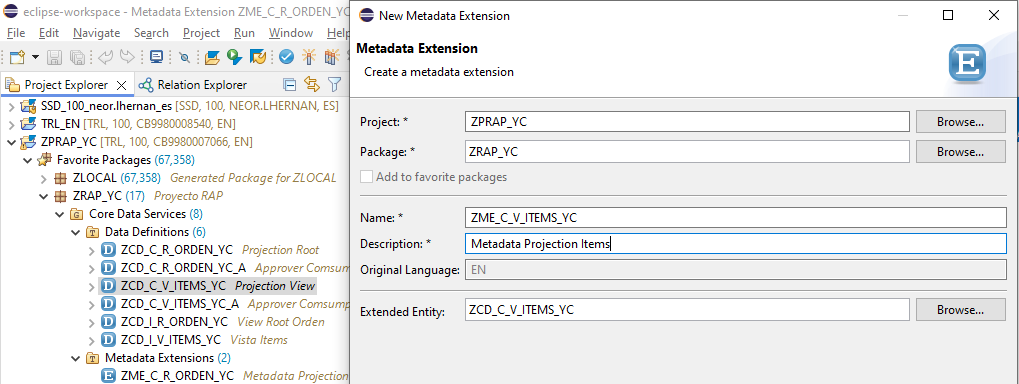






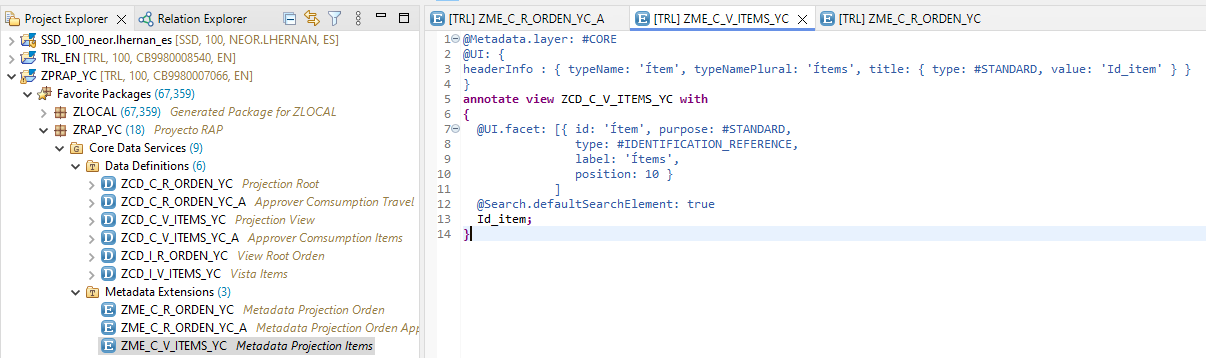


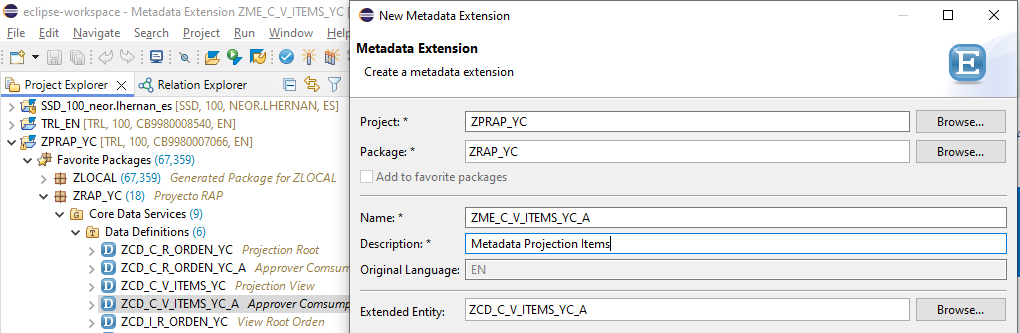
### 1.8.2 Metadata Projection View

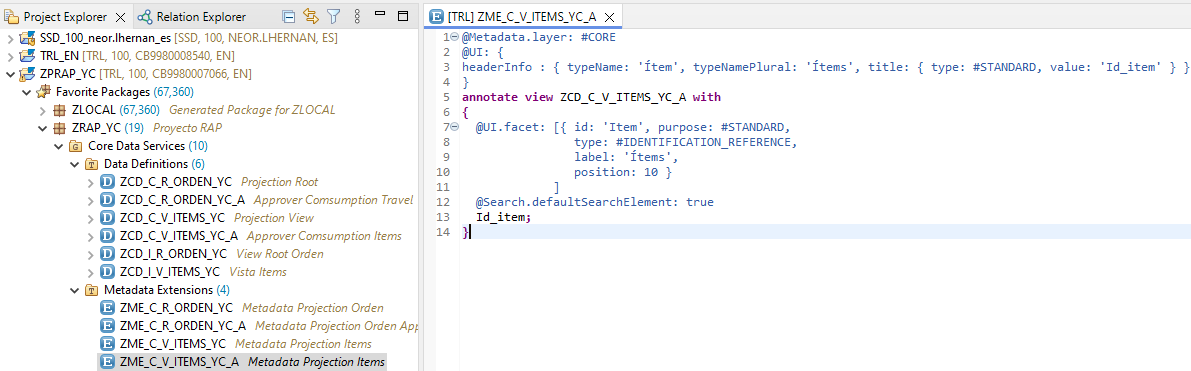


A screenshot of a computer

Description automatically generated







## 1.9 UI

Anotaciones UI en los metadata extensions de las projection view.

### 1.9.1 Metadata Projection Root ZME\_C\_R\_ORDEN\_YC

@Metadata.layer: #CORE

@UI: {

headerInfo : { typeName: 'Orden', typeNamePlural: 'Ordenes', title: { type: #STANDARD, value: 'Id' } }

}

**annotate** **view** ZCD\_C\_R\_ORDEN\_YC **with**

**{**

@UI.facet: [{ id: 'Orden', purpose: #STANDARD,

type: #IDENTIFICATION\_REFERENCE,

label: 'Orden',

position: 10 },

{ id: 'Items', purpose: #STANDARD,

type: #LINEITEM\_REFERENCE,

label: 'Ítems Orden',

position: 20,

targetElement: '\_Items' }

]

@UI:{ lineItem: [{ position: 10,

importance: #HIGH }],

identification: [{ position: 10,

label: 'Id Orden' }] }

@Search.defaultSearchElement: true

Id**;**

@UI: {

lineItem: [ { position: 20, importance: #HIGH } ],

identification: [ { position: 20 } ] }

Email**;**

@UI: {

lineItem: [ { position: 30, importance: #HIGH } ],

identification: [ { position: 30 } ] }

Firstname**;**

@UI: {

lineItem: [ { position: 40, importance: #HIGH } ],

identification: [ { position: 40 } ] }

Lastname**;**

@UI: {

lineItem: [ { position: 50, importance: #HIGH } ],

identification: [ { position: 50 } ] }

Country**;**

@UI: {

lineItem: [ { position: 60, importance: #MEDIUM } ],

identification: [ { position: 60 } ] }

Createon**;**

@UI: {

lineItem: [ { position: 70, importance: #HIGH } ],

identification: [ { position: 70 } ] }

Deliverydate**;**

@UI: {

lineItem: [ { position: 80, importance: #HIGH },

{ type: #FOR\_ACTION, dataAction: 'createOrder', label: 'Create Order' } ],

identification: [ { position: 80, label: 'Status [O(Open)|A(Accepted)|X(refused)]' } ] }

Orderstatus**;**

@UI.hidden: true

Imageurl**;**

/\* Associations \*/

// \_Items;

**}**

### 1.9.2 Metadata Projection Root ZME\_C\_R\_ORDEN\_YC\_A

@Metadata.layer: #CORE

@UI: {

headerInfo : { typeName: 'Orden', typeNamePlural: 'Ordenes', title: { type: #STANDARD, value: 'Id' } }

}

**annotate** **view** ZCD\_C\_R\_ORDEN\_YC\_A **with**

**{**

@UI.facet: [{ id: 'Orden', purpose: #STANDARD,

type: #IDENTIFICATION\_REFERENCE,

label: 'Orden',

position: 10 },

{ id: 'Items', purpose: #STANDARD,

type: #LINEITEM\_REFERENCE,

label: 'Ítems Orden',

position: 20,

targetElement: '\_Items' }

]

@UI:{ lineItem: [{ position: 10,

importance: #HIGH }],

identification: [{ position: 10,

label: 'Id Orden' }] }

@Search.defaultSearchElement: true

Id**;**

@UI: {

lineItem: [ { position: 20, importance: #HIGH } ],

identification:[ { position: 20 } ] }

Email**;**

@UI: {

lineItem: [ { position: 30, importance: #MEDIUM } ],

identification:[ { position: 30 } ] }

Firstname**;**

@UI: {

lineItem: [ { position: 40, importance: #MEDIUM } ],

identification:[ { position: 40 } ] }

Lastname**;**

@UI: {

lineItem: [ { position: 50, importance: #MEDIUM } ],

identification:[ { position: 50 } ] }

Country**;**

@UI: {

lineItem: [ { position: 60, importance: #MEDIUM } ],

identification:[ { position: 60 } ] }

Createon**;**

@UI: {

lineItem: [ { position: 70, importance: #HIGH } ],

identification:[ { position: 70 } ] }

Deliverydate**;**

@UI: {

lineItem: [ { position: 15, importance: #HIGH },

{ type: #FOR\_ACTION, dataAction: 'acceptOrder', label: 'Accept Order' },

{ type: #FOR\_ACTION, dataAction: 'refuseOrder', label: 'Refused Order' } ],

identification: [ { position: 15 },

{ type: #FOR\_ACTION, dataAction: 'acceptOrder', label: 'Accept Order' },

{ type: #FOR\_ACTION, dataAction: 'refuseOrder', label: 'Refused Order' } ] ,

selectionField: [ { position: 80 } ] }

@EndUserText.label: 'Overall Status'

Orderstatus**;**

@UI.hidden: true

Imageurl**;**

/\* Associations \*/

// \_Items;

**}**

### 1.9.3 Metadata Projection View ZME\_C\_V\_ITEMS\_YC

@Metadata.layer: #CORE

@Search.searchable: true

@UI: {

headerInfo : { typeName: 'Ítem', typeNamePlural: 'Ítems', title: { type: #STANDARD, value: 'Id\_item' } }

}

**annotate** **view** ZCD\_C\_V\_ITEMS\_YC **with**

**{**

@UI.facet: [{ id: 'Item', purpose: #STANDARD,

type: #IDENTIFICATION\_REFERENCE,

label: 'Ítems',

position: 10 }

]

@Search.defaultSearchElement: true

Id**;**

@UI: { lineItem: [ { position: 20, importance: #HIGH } ],

identification: [ { position: 20 } ] }

@Search.defaultSearchElement: true

Id\_item**;**

@UI: { lineItem: [ { position: 30, importance: #HIGH } ],

identification: [ { position: 30 } ] }

Name**;**

@UI: { lineItem: [ { position: 40, importance: #HIGH } ],

identification: [ { position: 40 } ] }

Description**;**

@UI: { lineItem: [ { position: 50, importance: #HIGH } ],

identification: [ { position: 50 } ] }

Releasedate**;**

@UI: { lineItem: [ { position: 60, importance: #HIGH } ],

identification: [ { position: 60 } ] }

Discontinueddate**;**

@UI: { lineItem: [ { position: 70, importance: #HIGH } ],

identification: [ { position: 70 } ] }

Price**;**

@UI: { lineItem: [ { position: 80, importance: #HIGH } ],

identification: [ { position: 80 } ] }

Height**;**

@UI: { lineItem: [ { position: 90, importance: #HIGH } ],

identification: [ { position: 90 } ] }

Width**;**

@UI: { lineItem: [ { position: 100, importance: #HIGH } ],

identification: [ { position: 100 } ] }

Depth**;**

@UI: { lineItem: [ { position: 110, importance: #HIGH } ],

identification: [ { position: 110 } ] }

Quantity**;**

@UI: { lineItem: [ { position: 120, importance: #HIGH } ],

identification: [ { position: 120 } ] }

Unitofmeasure**;**

/\* Associations \*/

//\_Orden;

**}**

### 1.9.4 Metadata Projection View ZME\_C\_V\_ITEMS\_YC\_A

@Metadata.layer: #CORE

@UI: {

headerInfo : { typeName: 'Ítem', typeNamePlural: 'Ítems', title: { type: #STANDARD, value: 'Id\_item' } }

}

**annotate** **view** ZCD\_C\_V\_ITEMS\_YC\_A **with**

**{**

@UI.facet: [{ id: 'Item', purpose: #STANDARD,

type: #IDENTIFICATION\_REFERENCE,

label: 'Ítems',

position: 10 }

]

@Search.defaultSearchElement: true

Id**;**

@UI: { lineItem: [ { position: 20, importance: #HIGH } ],

identification: [ { position: 20 } ] }

@Search.defaultSearchElement: true

Id\_item**;**

@UI: { lineItem: [ { position: 30, importance: #HIGH } ],

identification: [ { position: 30 } ] }

Name**;**

@UI: { lineItem: [ { position: 40, importance: #HIGH } ],

identification: [ { position: 40 } ] }

Description**;**

@UI: { lineItem: [ { position: 50, importance: #HIGH } ],

identification: [ { position: 50 } ] }

Releasedate**;**

@UI: { lineItem: [ { position: 60, importance: #HIGH } ],

identification: [ { position: 60 } ] }

Discontinueddate**;**

@UI: { lineItem: [ { position: 70, importance: #HIGH } ],

identification: [ { position: 70 } ] }

Price**;**

@UI: { lineItem: [ { position: 80, importance: #HIGH } ],

identification: [ { position: 80 } ] }

Height**;**

@UI: { lineItem: [ { position: 90, importance: #HIGH } ],

identification: [ { position: 90 } ] }

Width**;**

@UI: { lineItem: [ { position: 100, importance: #HIGH } ],

identification: [ { position: 100 } ] }

Depth**;**

@UI: { lineItem: [ { position: 110, importance: #HIGH } ],

identification: [ { position: 110 } ] }

Quantity**;**

@UI: { lineItem: [ { position: 120, importance: #HIGH } ],

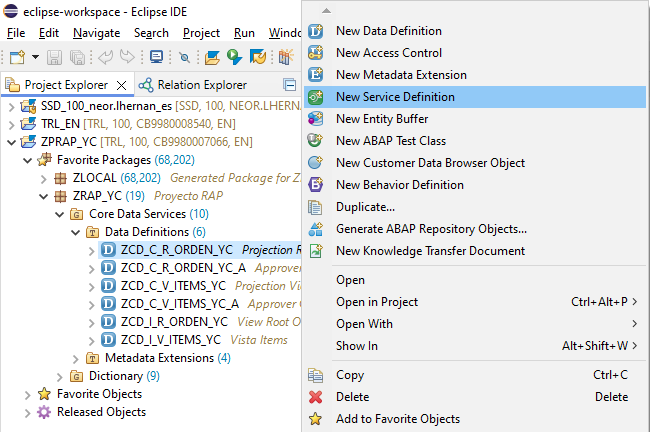
identification: [ { position: 120 } ] }

Unitofmeasure**;**

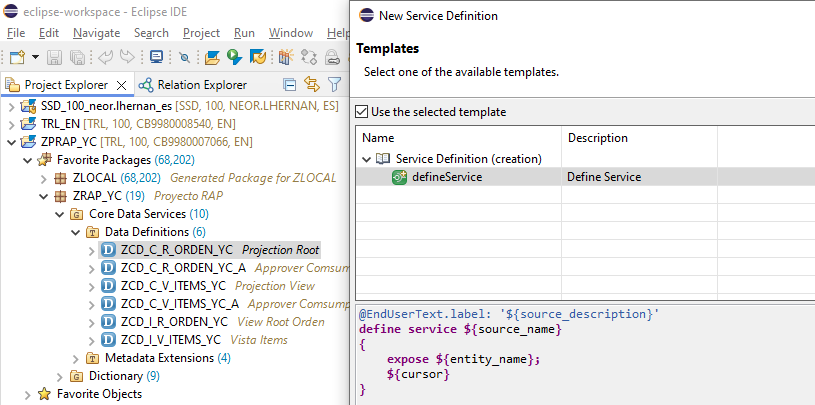
**}**

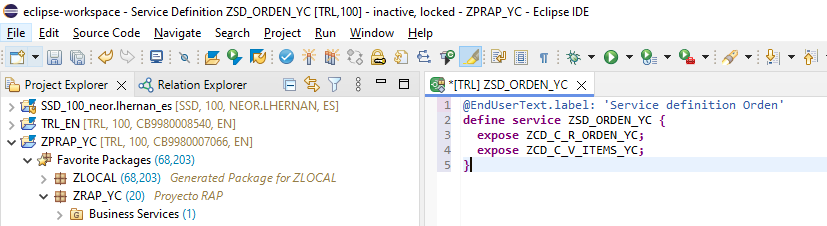
## 1.10 Service Definition

### 1.10.1 Rol principal

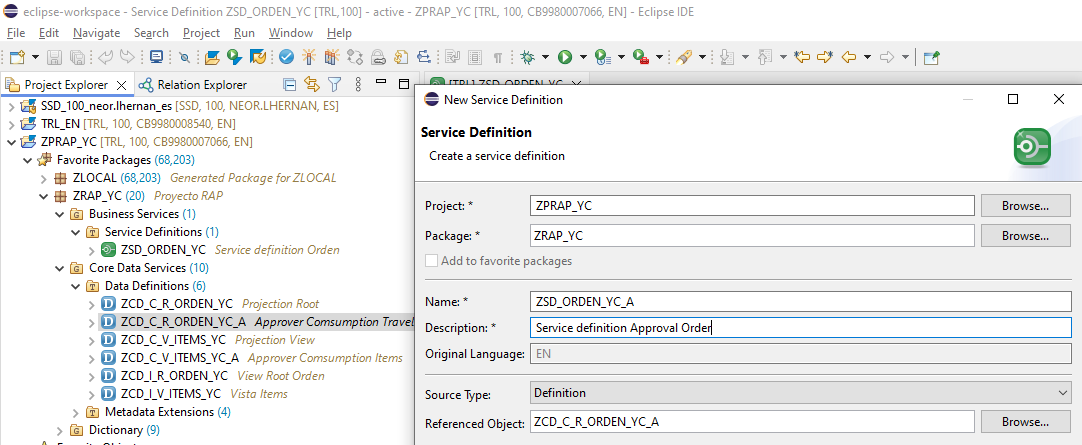








### 1.10.1 Service Aprobador



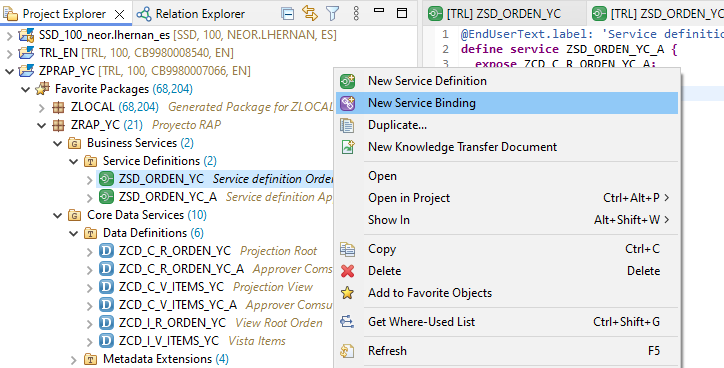
A screenshot of a computer

Description automatically generated

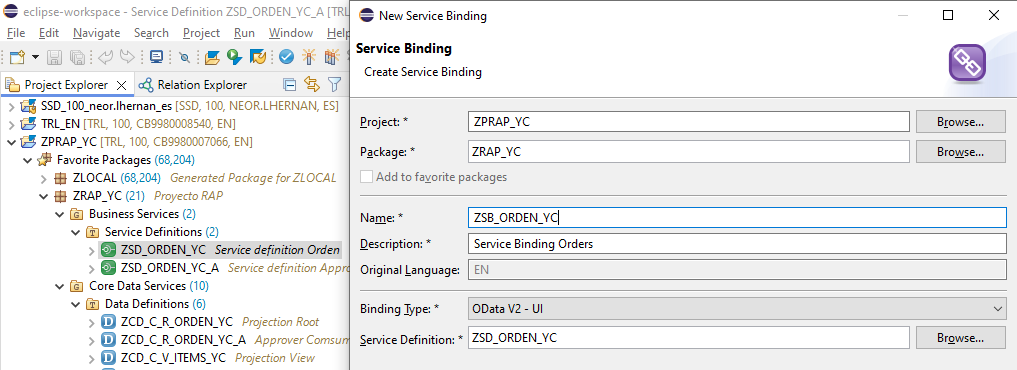
A screenshot of a computer

Description automatically generated

## 1.11 Service Binding



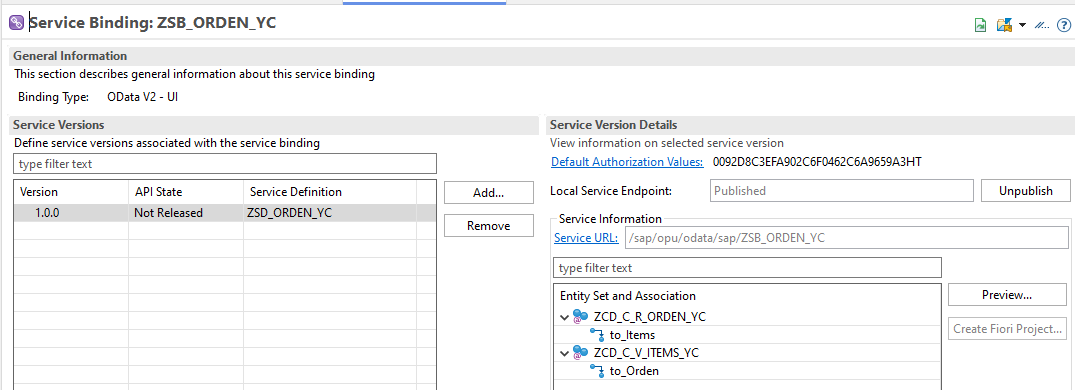
### 1.11.1 Rol principal



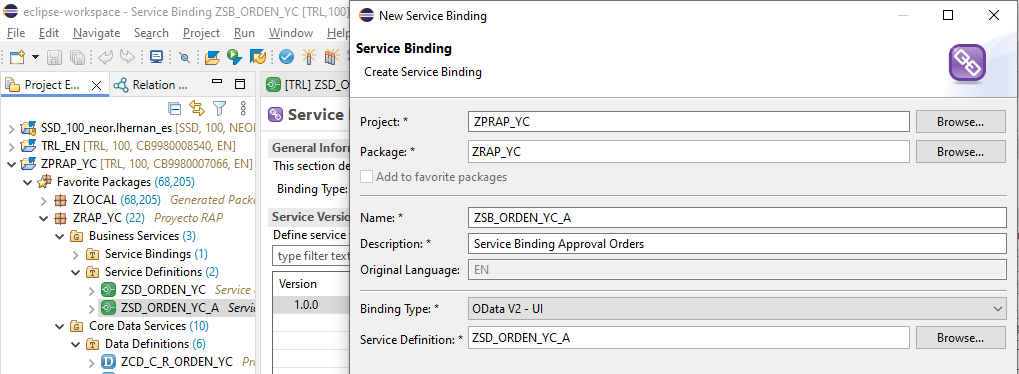
Se crea el Service Binding, lo activamos y se habilita la funcionalidad “Publish”



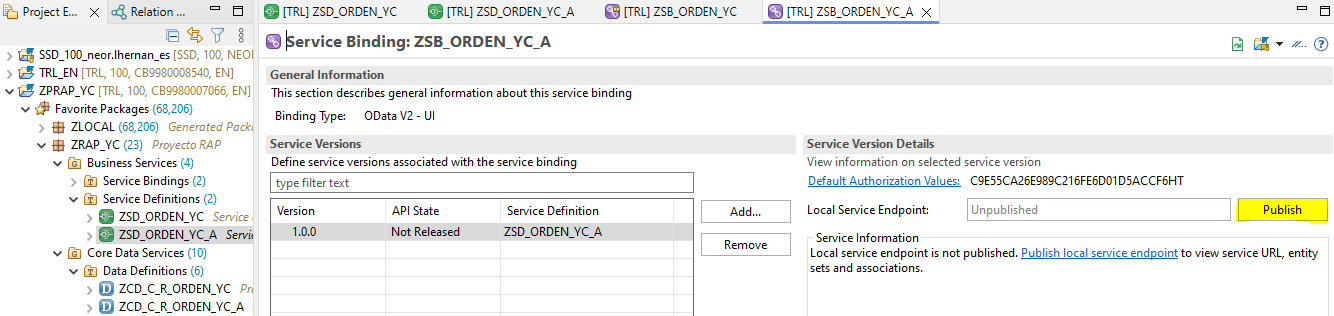
Queda publicado el servicio



### 1.10.1 Service Aprobador



Se crea el Service Binding, lo activamos y se habilita la funcionalidad “Publish”



Queda publicado el servicio

A screenshot of a computer

Description automatically generated

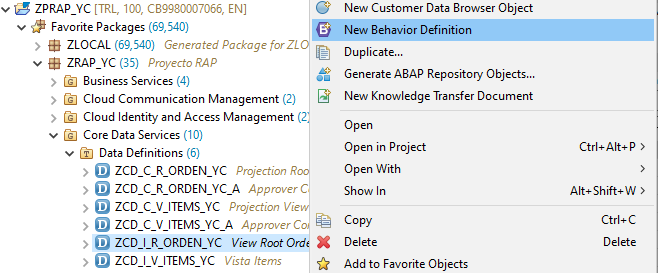
Se da click sobre la entidad, se abre el navegador, se autentica con el usuario BTP y se visualiza la aplicación:

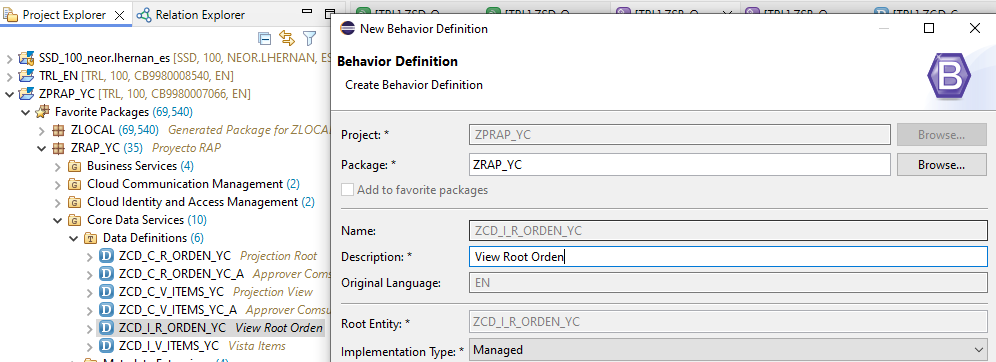
A screenshot of a computer

Description automatically generated

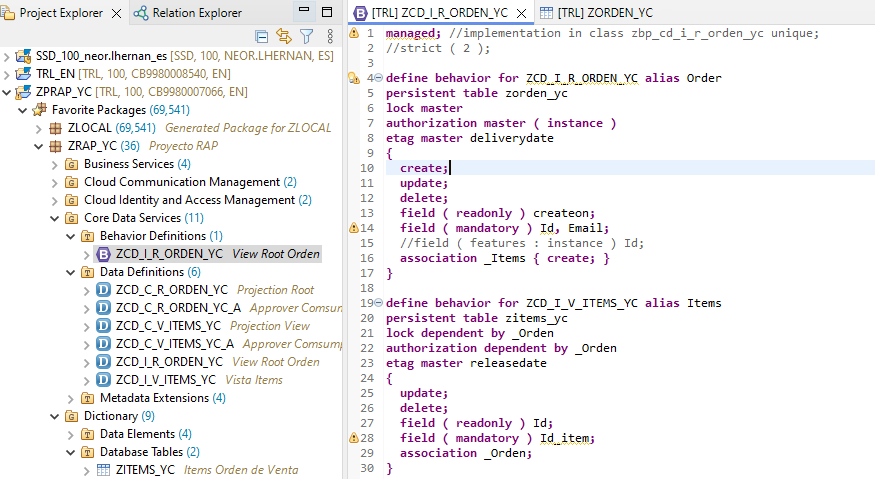
## 1.12 Behavior Definition CDS Interface

Sobre el CDS Interface Root creamos el Behavior definition



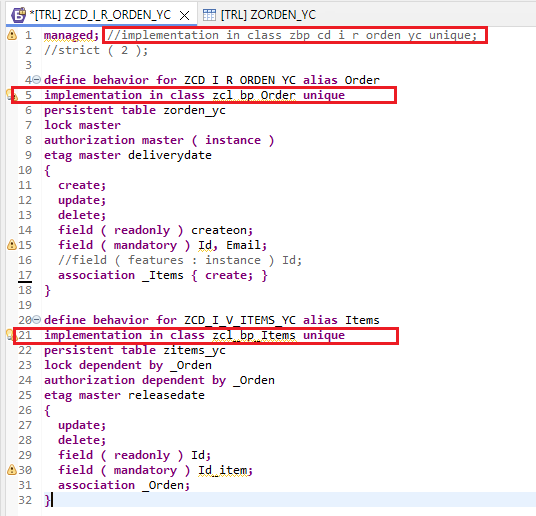


* Creamos el alias Orden y alias Items
* Se identifican las tablas de persistencia (zorden\_yc y zitems\_yc) para cada comportamiento
* Se identifican los estados de bloqueo (Lock master para la Orden y lock dependent by para Items)
* Se identifica el control de autorizaciones para las entidades (Authorization master para la Orden y Authorization dependent para Items)
* Se identifica el Etag master (deliverydate para la Orden y releasedate para Items)
* Se identifican los campos de solo lectura ( readonly )
* Se identifican los campos obligatorios ( mandatory )



### 1.12.1 Clase de implementación

* Se comenta implementación de única clase para el comportamiento
* Se agrega implementación individual a cada nivel (Orden e Items)



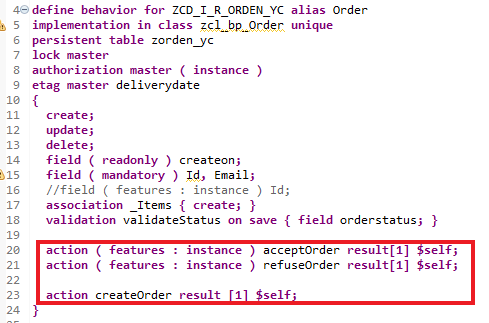
### 1.12.2 Validaciones

A screenshot of a computer code

Description automatically generated

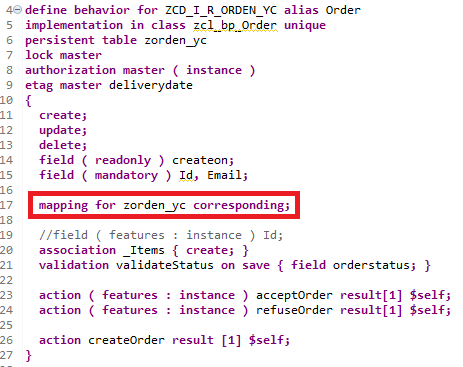
### 1.12.3 Acciones

Creamos las acciones en Order para aceptar o rechazar una orden de venta



### 1.12.4 Mapping

Asignamos el mapeo del CDS a base de datos

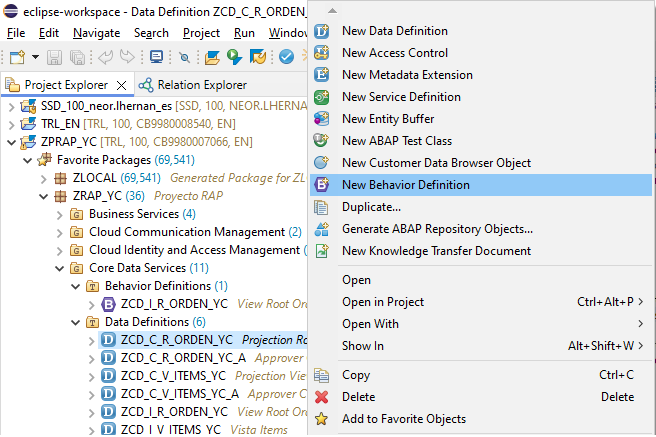


A screenshot of a computer code

Description automatically generated

## 1.13 Behavior Definition CDS Projection Root

Sobre el CDS Projection root creamos el Behavior definition



A screenshot of a computer

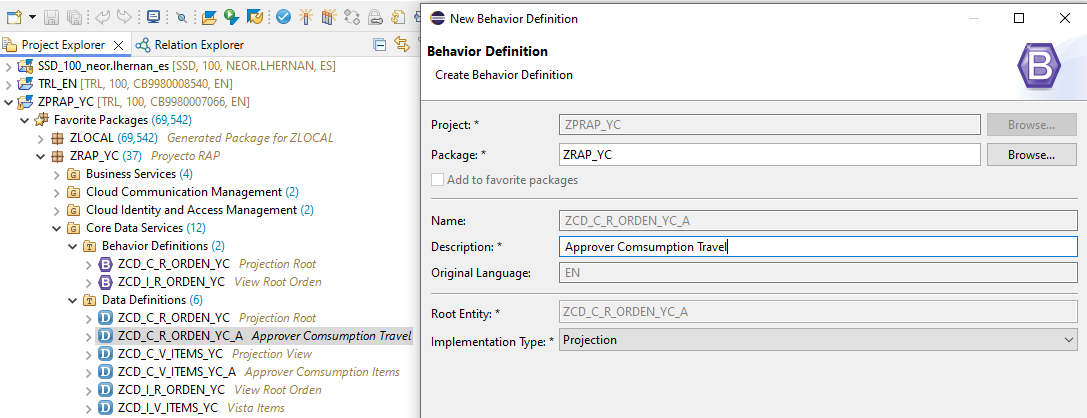
Description automatically generated

* Se genera y asignamos los alias al comportamiento (OrderProj e ItemsProj)
* Se adiciona etag para controlar los accesos a nivel de ODATA

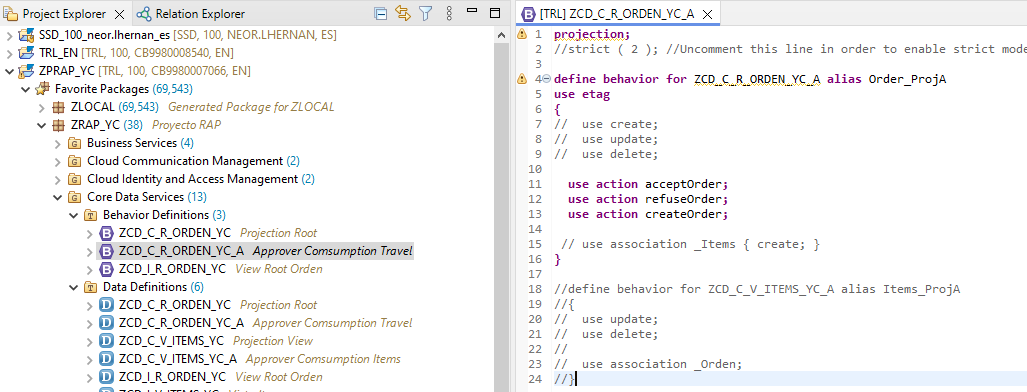


## 1.14 Behavior Definition CDS Projection del Aprobador





Se comentan las acciones que no deseamos que tenga el aprobador



## 1.13 Behavior Handler - Save

## 1.14 Behavior Handler – Update

## 1.15 Behavior Handler – Delete

# 2. Proyecto SAP CAP

## 2.1