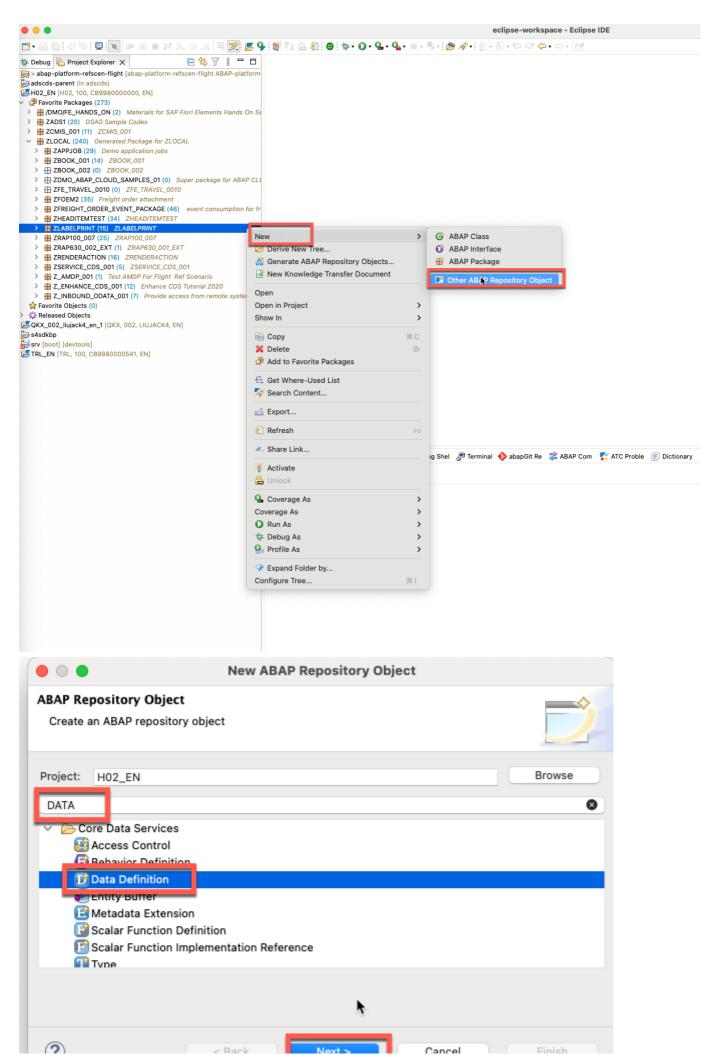
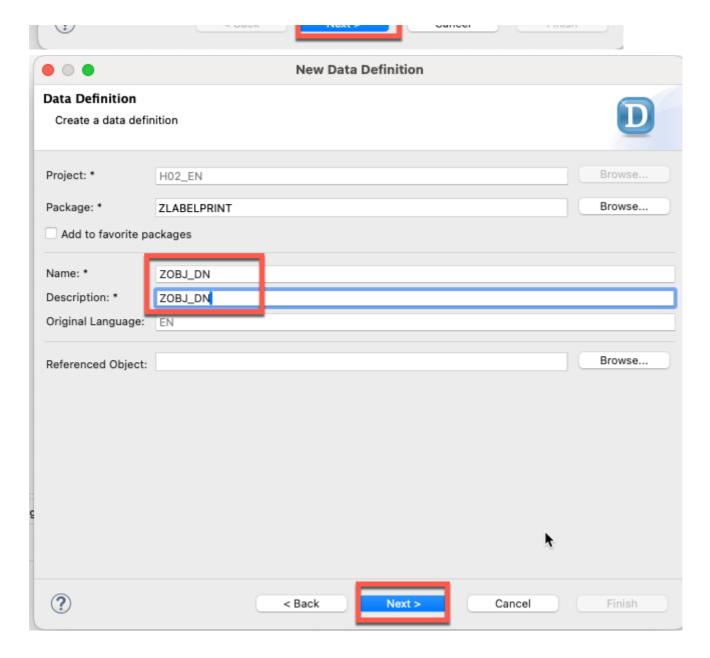
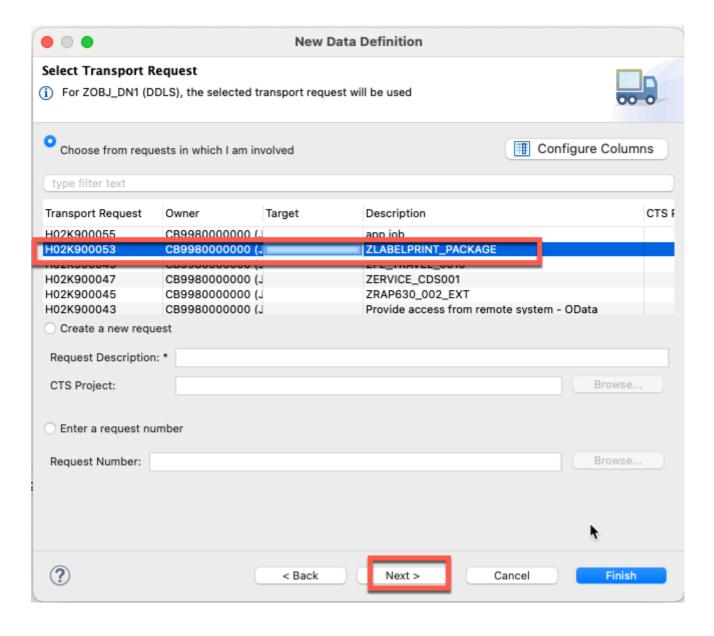
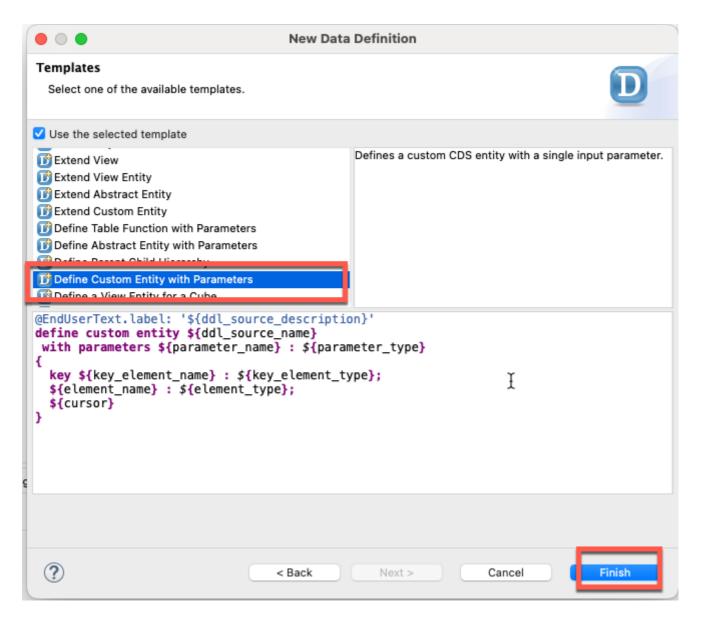
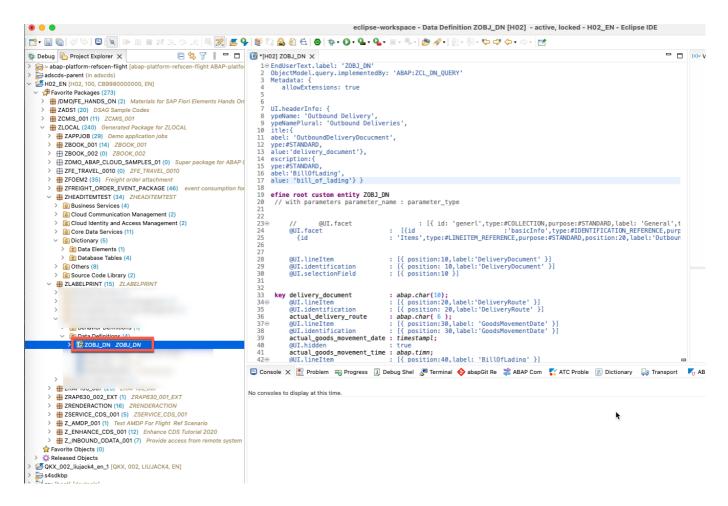
step 1:Create Custom Entity for Outbound Delivery Header











Adjust the data definition ZOBJ_DN with the following code:

```
@EndUserText.label: 'ZOBJ_DN'
@ObjectModel.query.implementedBy: 'ABAP:ZCL_DN_QUERY'
@Metadata: {
    allowExtensions: true
}
@UI.headerInfo: {
typeName: 'Outbound Delivery',
typeNamePlural: 'Outbound Deliveries',
title:{
label: 'OutboundDeliveryDocucment',
type: #STANDARD,
value:'delivery_document'},
description:{
type: #STANDARD,
label: 'BillOfLading',
value: 'bill_of_lading'} }
define root custom entity ZOBJ_DN
  // with parameters parameter_name : parameter_type
{
                                           : [{ id:
      //
              @UI.facet
'generl', type: #COLLECTION, purpose: #STANDARD, label:
'General', targetQualifier: 'general', parentId:
```

```
'',position:10,isPartOfPreview:true },
      @UI.facet
                                 : [{id
: 'basicInfo', type:#IDENTIFICATION_REFERENCE, purpose: #STANDARD, label: 'Basic
e Information',position:10,isPartOfPreview:true},
'Items', type: #LINEITEM REFERENCE, purpose: #STANDARD, position: 20, label: 'Outb
ound Delivery Items',targetElement: '_items'}]
                                 : [{ position:10, label: 'DeliveryDocument'
     @UI.lineItem
}]
     @UI.identification
                                 : [{ position:
10, label: 'DeliveryDocument' }]
     @UI.selectionField
                                 : [{ position:10 }]
  key delivery_document
                                 : abap.char(10);
      @UI.lineItem
                                 : [{ position:20,label:'DeliveryRoute' }]
      @UI.identification
                                 : [{ position: 20, label: 'DeliveryRoute'
}]
      actual_delivery_route
                                 : abap.char( 6 );
      @UI.lineItem
                                 : [{ position:30, label:
'GoodsMovementDate' }]
      @UI.identification
                                 : [{ position:
30,label:'GoodsMovementDate' }]
      actual_goods_movement_date : timestampl;
     @UI.hidden
                                 : true
      actual_goods_movement_time : abap.timn;
      @UI.lineItem
                                 : [{ position:40,label: 'BillOfLading' }]
                                 : [{ position: 40, label: 'BillOfLading' }]
      @UI.identification
      bill_of_lading
                                 : abap.char( 35 );
     @UI.lineItem
                                 : [{ position:50,label:
'BillingDocumentDate' }]
      @UI.identification
                                 : [{ position:
50,label:'BillOfDocumentDate' }]
      billing_document_date
                                 : timestampl;
      @UI.hidden
                                 : true
      complete_delivery_is_defin : abap_boolean;
      @UI.lineItem
                                 : [{ position:60, label:
'ConfirmationTime' }]
     @UI.identification
                                 : [{ position: 60, label: 'ConfirmTime' }]
      confirmation_time
                                 : abap.timn;
                                 : [{ position:70,label: 'CreatedByUser'
     @UI.lineItem
}]
      @UI.identification
                                 : [{ position: 70, label: 'CreatedByUser'
}]
      created_by_user
                                 : abap.char( 12 );
                                 : [{ position:80,label: 'CreationDate' }]
      @UI.lineItem
                                 : [{ position: 80, label: 'CreationDate' }]
      @UI.identification
                                 : timestampl;
      creation_date
      creation_time
                                 : abap.timn;
      customer_group
                                 : abap.char(2);
      delivery_block_reason
                                 : abap.char(2);
                                 : [{ position:90,label: 'DeliverDate' }]
      @UI.lineItem
```

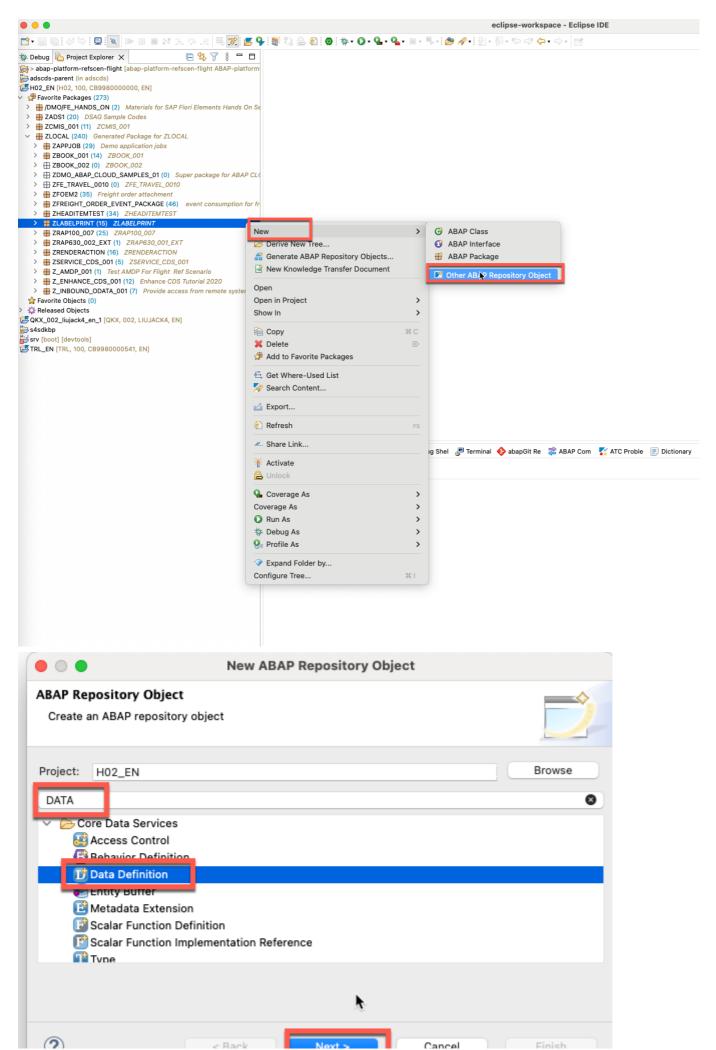
```
@UI.identification
                                 : [{ position: 90,label:'DeliverDate' }]
     @UI.selectionField
                                 : [{ position:60 }]
      delivery_date
                                 : timestampl;
     @UI.lineItem
                                 : [{ position:100,label:
'DeliverDocumentBySuppl' }]
     @UI.identification
                                 : [{ position:
100, label: 'DeliverDocumentBySuppl' }]
      delivery_document_by_suppl : abap.char(35);
      delivery_document_type
                                 : abap.char(4);
      delivery_is_in_plant
                                 : abap_boolean;
      delivery_priority
                                 : abap.char(2);
      delivery_time
                                 : timestampl;
      delivery_version
                                 : abap.char(4);
      depreciation_percentage
                                 : abap.dec( 3, 2 );
      distr_status_by_decentrali : abap.char(1);
      document_date
                                 : timestampl;
     etag
                                 : abap.string;
      external identification ty : abap.char(1);
      external_transport_system : abap.char(5);
      factory_calendar_by_custom : abap.char(2);
      goods_issue_or_receipt_sli : abap.char(10);
      goods_issue_time
                                 : abap.timn;
      handling_unit_in_stock
                               : abap.char(1);
      hdr_general_incompletion_s : abap.char(1);
      hdr_goods_mvt_incompletion : abap.char(1);
      header_billg_incompletion : abap.char(1);
      header_billing_block_reaso : abap.char(2);
      header deliv incompletion : abap.char(1);
      header_gross_weight
                                 : abap.dec(11,3);
      header_net_weight
                                 : abap.dec(11,3);
      header_packing_incompletio : abap.char(1);
      header_pickg_incompletion : abap.char(1);
      header_volume
                                 : abap.dec(11,3);
      header_volume_unit
                                 : abap.char( 3 );
      header_weight_unit
                                 : abap.char( 3 );
                                 : abap.char( 3 );
      incoterms_classification
      incoterms_transfer_locatio : abap.char(28);
      intercompany_billing_date : timestampl;
      internal_financial_documen : abap.char(10);
      is_delivery_for_single_war : abap.char(1);
      is_export_delivery
                                 : abap.char(1);
      last_change_date
                                 : timestampl;
      last_changed_by_user
                                 : abap.char(12);
      loading_date
                                 : timestampl;
      loading_point
                                 : abap.char(2);
      loading_time
                                 : abap.timn;
     means_of_transport
                                 : abap.char(20);
     means_of_transport_ref_mat : abap.char(40);
                                 : abap.char(4);
     means_of_transport_type
      order_combination_is_allow : abap_boolean;
      order_id
                                 : abap.char(12);
      overall_deliv_conf_status : abap.char(1);
      overall_deliv_reltd_billg : abap.char(1);
      overall_goods_movement_sta : abap.char(1);
```

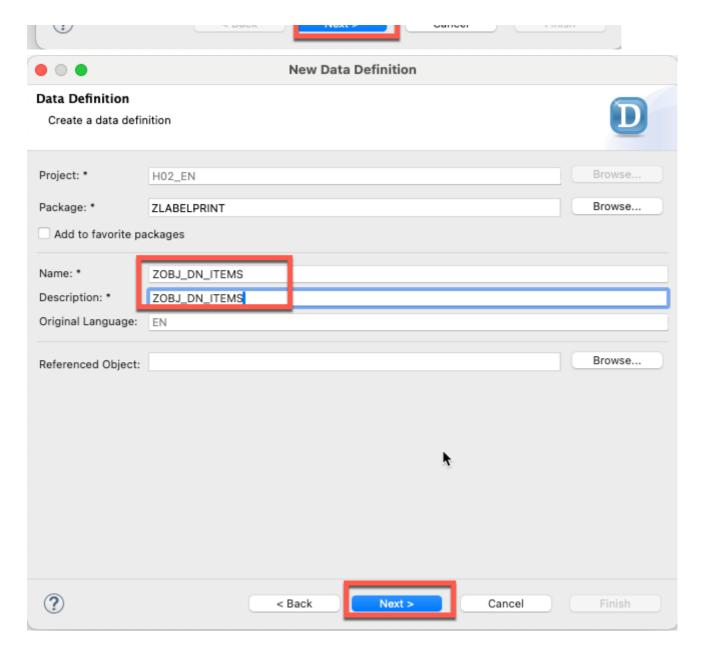
```
overall_intco_billing_stat : abap.char(1);
      overall packing status : abap.char(1);
      overall_picking_conf_statu : abap.char(1);
      overall_picking_status : abap.char(1);
      overall proof of delivery : abap.char(1);
      overall sdprocess status : abap.char(1);
      overall_warehouse_activity : abap.char(1);
      ovrl itm deliv incompletio : abap.char(1);
      ovrl itm gds mvt incomplet : abap.char(1);
      ovrl_itm_general_incomplet : abap.char(1);
      ovrl_itm_packing_incomplet : abap.char(1);
      ovrl_itm_picking_incomplet : abap.char(1);
      payment_guarantee_procedur : abap.char(6);
      picked_items_location
                                 : abap.char(20);
      picking date
                                 : timestampl;
      picking time
                                 : abap.timn;
      planned_goods_issue_date
                                 : timestampl;
      proof of delivery date
                                 : timestampl;
      proposed_delivery_route
                                 : abap.char(6);
      receiving_plant
                                 : abap.char(4);
      receivinglocationtimezone : abap.char(6);
                                 : abap.char(10);
      route schedule
      sales district
                                 : abap.char(6);
      sales office
                                 : abap.char(4);
     @UI.lineItem
                                 : [{ position:150, label:
'SalesOrganization' }]
      @UI.identification
                                 : [{ position:
150, label: 'SalesOrganization' }]
     @UI.selectionField
                                 : [{ position:50 }]
                                 : abap.char(4);
      sales_organization
      sddocument category
                                 : abap.char(4);
                                 : [{ position:140,label: 'ShipToParty' }]
      @UI.lineItem
                                 : [{ position: 140, label: 'ShipToParty' }]
      @UI.identification
      @UI.selectionField
                                 : [{ position:40 }]
                                 : abap.char(10);
      ship_to_party
      shipment_block_reason
                                 : abap.char(2);
      shipping_condition
                                 : abap.char(2);
                                 : [{ position:120, label: 'ShippingPoint'
      @UI.lineItem
}]
      @UI.identification
                                 : [{ position: 120, label: 'ShippingPoint'
}]
                                 : [{ position:20 }]
      @UI.selectionField
                                 : abap.char(4);
      shipping_point
      @UI.lineItem
                                 : [{ position:130,label: 'ShippingType'
}]
      @UI.identification
                                 : [{ position: 130, label: 'ShippingType'
}]
      @UI.selectionField
                                 : [{ position:30 }]
                                 : abap.char(2);
      shipping_type
      sold_to_party
                                 : abap.char(10);
      special_processing_code
                                 : abap.char(4);
      statistics_currency
                                 : abap.char(5);
      supplier
                                 : abap.char(10);
```

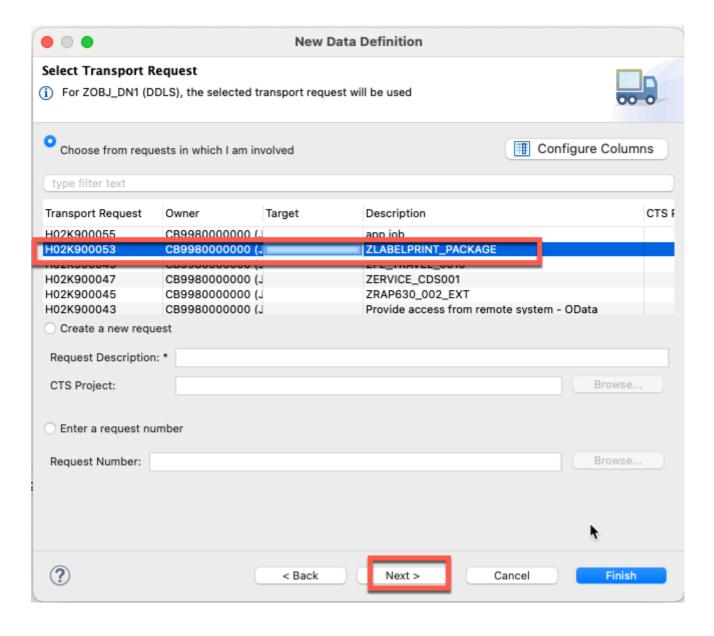
```
total_block_status
                               : abap.char(1);
     total_credit_check_status : abap.char(1);
                               : [{ position:110, label:
     @UI.lineItem
'TotalNumberOfPackage' }]
     @UI.identification
                               : [{ position:
110,label:'TotalNumberOfPackage' }]
                               : abap.char(5);
     total_number_of_package
     transaction_currency
                               : abap.char(5);
     transportation_group
                              : abap.char(4);
     unloading_point_name
                              : abap.char(25);
                               : abap.char(3);
     warehouse
     warehouse_gate
                               : abap.char(3);
                             : abap.char(10);
     warehouse_staging_area
     _items
                               : composition [0..*] of ZOBJ_DN_ITEMS;
}
```

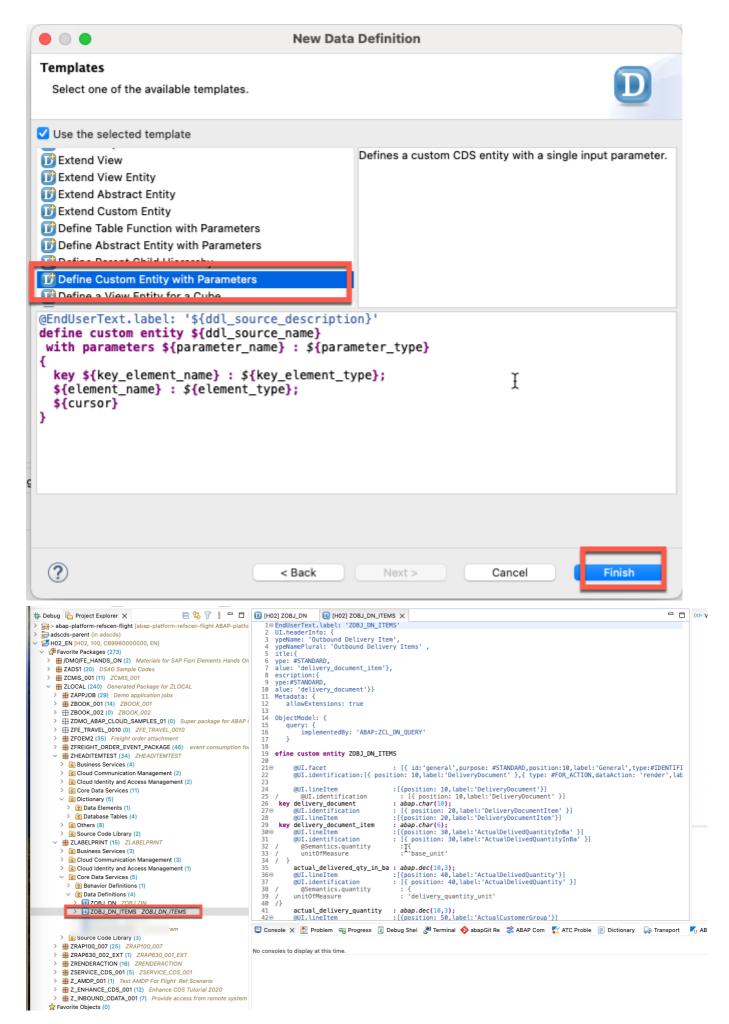
push command+s and command+f3 to save and activate the code .

step 2: Create Custom Entity for Outbound Delivery items









```
@EndUserText.label: 'ZOBJ_DN_ITEMS'
@UI.headerInfo: {
typeName: 'Outbound Delivery Item',
typeNamePlural: 'Outbound Delivery Items',
title:{
type: #STANDARD,
value: 'delivery_document_item'},
description:{
type: #STANDARD,
value: 'delivery_document'}}
@Metadata: {
    allowExtensions: true
}
@ObjectModel: {
    query: {
        implementedBy: 'ABAP:ZCL_DN_QUERY'
}
define custom entity ZOBJ_DN_ITEMS
{
                                : [{ id:'general',purpose:
      @UI.facet
#STANDARD,position:10,label:'General',type:#IDENTIFICATION_REFERENCE }]
     @UI.identification:[{ position: 10, label: 'DeliveryDocument' },{
type: #FOR_ACTION,dataAction: 'render',label:'Render',position:15 }]
     @UI.lineItem
                                :[{position:
10, label: 'DeliveryDocument'}]
      @UI.identification
                                 : [{ position:
10, label: 'DeliveryDocument' }]
  key delivery_document
                            : abap.char(10);
                               : [{ position:
     @UI.identification
20, label: 'DeliveryDocumentItem' }]
      @UI.lineItem
                               :[{position:
20,label:'DeliveryDocumentItem'}]
  key delivery_document_item : abap.char(6);
     @UI.lineItem
                                :[{position:
30,label:'ActualDelivedQuantityInBa' }]
      @UI.identification : [{ position:
30,label:'ActualDelivedQuantityInBa' }]
       @Semantics.quantity : {
//
//
       unitOfMeasure
                                 : 'base_unit'
// }
     actual_delivered_qty_in_ba : abap.dec(10,3);
      @UI.lineItem
                                :[{position:
40,label:'ActualDelivedQuantity'}]
     @UI.identification : [{ position:
40,label:'ActualDelivedQuantity' }]
       @Semantics.quantity : {
//
//
      unitOfMeasure
                                 : 'delivery_quantity_unit'
//}
      actual_delivery_quantity : abap.dec(10,3);
      @UI.lineItem
                                :[{position:
```

```
50, label: 'ActualCustomerGroup'}]
      @UI.identification
                                 : [{ position:
50,label:'ActualCustomerGroup' }]
      additional_customer_group : abap.char(3);
                                  :[{position: 60}]
      @UI.lineItem
      additional_customer_grou_2 : abap.char(3);
      additional_customer_grou_3 : abap.char(3);
      additional customer grou 4: abap.char(3);
      additional_customer_grou_5 : abap.char(3);
      additional_material_group : abap.char(3);
      additional_material_grou_2 : abap.char(3);
      additional_material_grou_3 : abap.char(3);
      additional_material_grou_4 : abap.char(3);
      additional_material_grou_5 : abap.char(3);
      alternate product number : abap.char(40);
                                  :[{position: 60, label: 'BaseUnit'}]
      @UI.lineItem
      @UI.identification
                                 : [{ position: 60, label: 'BaseUnit' }]
//
        @Semantics.unitOfMeasure
                                   : true
      base unit
                                 : abap.char(3);
                                  :[{position: 70, label: 'Batch'}]
      @UI.lineItem
      @UI.identification
                                  : [{ position: 70, label: 'Batch' }]
                                  : abap.char(10);
      batch
      @UI.lineItem
                                  :[{position: 80,label:'BatchBySupplier'}]
      @UI.identification
                                  : [{ position: 80, label: 'BatchBySupplier'
}]
                                  : abap.char(15);
      batch_by_supplier
      @UI.lineItem
                                  :[{position:
90,label:'BatchClassification'}]
                                 : [{ position:
      @UI.identification
90,label:'BatchClassification' }]
      batch classification
                                 : abap.char(18);
      bomexplosion
                                 : abap.char(8);
      business_area
                                 : abap.char(4);
      consumption_posting
                                 : abap.char(1);
      controlling_area
                                 : abap.char(4);
                                 : abap.char(10);
      cost_center
      created_by_user
                                 : abap.char(12);
      creation_date
                                 : timestampl;
                                 : abap.timn;
      creation_time
      cust_engineering_chg_statu : abap.char(17);
      delivery_document_item_cat : abap.char(4);
      delivery_document_item_tex : abap.char(40);
      delivery_group
                                 : abap.char(3);
                                  :[{position: 130, label: 'QuantityUnit'}]
      @UI.lineItem
      @UI.identification
                                  : [{ position: 130, label: 'QuantityUnit'
}]
//
        @Semantics.unitOfMeasure : true
      delivery_quantity_unit :abap.char(3);
      delivery_related_billing_s : abap.char(1);
      delivery_to_base_quantity : abap.dec(3,0);
      delivery_to_base_quantit_2 : abap.dec(3,0);
      delivery_version
                                 : abap.char(4);
      department_classification : abap.char(4);
```

```
distribution_channel
                                 : abap.char(2);
                                 : abap.char(2);
      division
      eudelivery_item_arcstatus : abap.char(1);
      fixed_shipg_procg_duration : abap.dec(3,2);
                                 : abap.char(10);
      alaccount
      goods movement reason code : abap.char(4);
      goods_movement_status
                                 : abap.char(1);
                                 : abap.char(3);
      goods movement type
      higher_lvl_itm_of_bat_splt : abap.char(6);
      higher_level_item
                                 : abap.char(6);
      inspection_lot
                                 : abap.char(12);
                                 : abap.char(6);
      inspection_partial_lot
      intercompany_billing_statu : abap.char(1);
      international_article_numb : abap.char(18);
      inventory_special_stock_ty : abap.char(1);
      inventory_valuation_type : abap.char(10);
      is_completely_delivered
                                 : abap boolean;
      is not goods movements rel : abap.char(1);
      is separate valuation
                                 : abap boolean;
      issg_or_rcvg_batch
                                 : abap.char(10);
      issg_or_rcvg_material
                                : abap.char(40);
      issg_or_rcvg_spcl_stock_in : abap.char(1);
      issg_or_rcvg_stock_categor : abap.char(1);
      issg_or_rcvg_valuation_typ : abap.char(10);
      issuing_or_receiving_plant : abap.char(4);
      issuing_or_receiving_stora : abap.char(4);
      item_billing_block_reason : abap.char(2);
      item billing incompletion : abap.char(1);
      item_delivery_incompletion : abap.char(1);
      item_gds_mvt_incompletion : abap.char(1);
      item general incompletion : abap.char(1);
      item_gross_weight
                                 : abap.dec(11,3);
      item_is_billing_relevant
                                 : abap.char(1);
      item_net_weight
                                 : abap.dec(11,3);
      item_packing_incompletion
                                 : abap.char(1);
      item_picking_incompletion
                                 : abap.char(1);
                                 : abap.dec(11,3);
      item_volume
      item_volume_unit
                                 : abap.char(3);
      item_weight_unit
                                 : abap.char(3);
      last_change_date
                                 : timestampl;
      loading_group
                                 : abap.char(4);
     manufacture_date
                                 : timestampl;
                                 :[{position: 100, label: 'Material'}]
     @UI.lineItem
                                 : [{ position: 100, label: 'Material' }]
     @UI.identification
                                 : abap.char(40);
     material
                                 : abap.char(35);
     material_by_customer
     material_freight_group
                                 : abap.char(8);
     material_group
                                 : abap.char(9);
                                 : abap_boolean;
     material_is_batch_managed
     material_is_int_batch_mana : abap_boolean;
     @UI.lineItem
                                 :[{position:
110, label: 'NumberOfSerialNumbers'}]
     @UI.identification
                                 : [{ position:
```

```
110, label: 'NumberOfSerialNumbers' }]
      number of serial numbers
                                  : abap.int4;
      order id
                                  : abap.char(12);
      order_item
                                  : abap.char(4);
      original_delivery_quantity : abap.dec(10,3);
      originally_requested_mater : abap.char(40);
      overdeliv_tolrtd_lmt_ratio : abap.dec(2,1);
      packing status
                                  : abap.char(1);
      partial_delivery_is_allowe : abap.char(1);
      payment_guarantee_form
                                  : abap.char(2);
      picking_confirmation_statu : abap.char(1);
                                  : abap.char(1);
      picking_control
      picking_status
                                  : abap.char(1);
      @UI.lineItem
                                  :[{position: 120, label: 'Plant'}]
      @UI.identification
                                  : [{ position: 120, label: 'Plant' }]
      plant
                                  : abap.char(4);
      primary_posting_switch
                                  : abap.char(1);
      product availability date
                                  : timestampl;
      product availability time
                                  : abap.timn;
      product_configuration
                                  : abap.char(18);
      product_hierarchy_node
                                  : abap.char(18);
      profitability segment
                                  : abap.char(10);
      profit_center
                                  : abap.char(10);
      proof_of_delivery_relevanc : abap.char(1);
      proof_of_delivery_status
                                  : abap.char(1);
      quantity_is_fixed
                                  : abap_boolean;
      receiving_point
                                  : abap.char(25);
      reference document logical: abap.char(10);
      reference sddocument
                                  : abap.char(10);
      reference_sddocument_categ : abap.char(4);
      reference sddocument item : abap.char(6);
      retail_promotion
                                  : abap.char(10);
      sales_document_item_type
                                  : abap.char(1);
      sales_group
                                  : abap.char(3);
      sales office
                                  : abap.char(4);
      sddocument_category
                                  : abap.char(4);
      sdprocess_status
                                  : abap.char(1);
      shelf_life_expiration_date : timestampl;
                                  : timestampl;
      statistics_date
                                  : abap.char(1);
      stock_type
                                  : abap.char(10);
      storage_bin
      storage_location
                                  : abap.char(4);
      storage_type
                                  : abap.char(3);
                                  : abap.char(3);
      subsequent_movement_type
      transportation_group
                                  : abap.char(4);
      underdeliv_tolrtd_lmt_rati : abap.dec(2,1);
      unlimited_overdelivery_is
                                  : abap_boolean;
      varbl_shipg_procg_duration : abap.dec(3,2);
     warehouse
                                  : abap.char(3);
     warehouse_activity_status
                                  : abap.char(1);
     warehouse_staging_area
                                  : abap.char(10);
     warehouse_stock_category
                                  : abap.char(1);
      warehouse_storage_bin
                                  : abap.char(10);
```

```
_headers : association to parent ZOBJ_DN on $projection.delivery_document = _headers.delivery_document; // _unit: assiation to DMO/
}
```

push **command+s** and **command+f3** to save and activate the code .