Cycle#2: OOPs – ALV

**Program#1: OOPs ALV**

\*&---------------------------------------------------------------------\*  
\*& Report  ZEXAMPLE\_ALV\_07  
\*&  
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\*&  
\*&---------------------------------------------------------------------\*  
  
REPORT zexample\_alv\_07.  
DATA: o\_grid TYPE REF TO cl\_gui\_alv\_grid.  
TYPES:  
  BEGIN OF ty\_vbak,  
    vbeln TYPE vbeln,  
    vkorg TYPE vkorg,  
    kunnr TYPE kunnr,  
    waerk TYPE waerk,  
    netwr TYPE netwr,  
    END OF ty\_vbak,  
    ty\_vbak\_tab TYPE STANDARD TABLE OF ty\_vbak.  
DATA:  
   it\_vbak TYPE ty\_vbak\_tab.  
  
PARAMETERS: p\_vkorg TYPE vkorg.  
  
START-OF-SELECTION.  
  SELECT  
       vbeln  
       vkorg  
       kunnr  
       waerk  
       netwr  
       FROM vbak  
       INTO TABLE it\_vbak  
  WHERE vkorg = p\_vkorg.  
  
  IF p\_vkorg IS NOT INITIAL.  
    CALL SCREEN 100.  
  ENDIF.  
\*&---------------------------------------------------------------------\*  
\*&      Module  STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE status\_0100 OUTPUT.  
  IF o\_grid IS INITIAL.  
    o\_grid =  NEW cl\_gui\_alv\_grid( i\_parent = cl\_gui\_container=>screen0 ).  
  ENDIF.  
  " Fill Field Catalog  
  DATA(lt\_fcat) = VALUE lvc\_t\_fcat(  tabname = 'VBAK'  
  ( fieldname = 'VBELN' scrtext\_l = 'Sales Order' scrtext\_m = 'Sales Ord' scrtext\_s = 'Sls Ord' )  
  ( fieldname = 'VKORG' scrtext\_l = 'Sales Org' scrtext\_m = 'Sales Org' scrtext\_s = 'Sls Org' )  
  ( fieldname = 'KUNNR' scrtext\_l = 'Customer' scrtext\_m = 'Customer' scrtext\_s = 'Cust' )  
  ( fieldname = 'WAERK' scrtext\_l = 'Currency' scrtext\_m = 'Currency' scrtext\_s = 'Curr.' )  
  ( fieldname = 'NETWR' scrtext\_l = 'Gross Amount' scrtext\_m = 'Gross Amnt' scrtext\_s = 'Grs.Amnt.' ) ).  
  
  IF o\_grid IS BOUND.  
    o\_grid->set\_table\_for\_first\_display( CHANGING it\_outtab = it\_vbak  
                                                   it\_fieldcatalog = lt\_fcat  ).  
  ENDIF.  
ENDMODULE.                 " STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*&      Module  USER\_COMMAND\_0100  INPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE user\_command\_0100 INPUT.  
  
ENDMODULE.                 " USER\_COMMAND\_0100  INPUT

Program#2: Handling Double Click

\*&---------------------------------------------------------------------\*  
\*& Report  ZEXAMPLE\_ALV\_07  
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\*&---------------------------------------------------------------------\*  
  
REPORT zexample\_alv\_08.  
DATA: o\_grid TYPE REF TO cl\_gui\_alv\_grid.  
TYPES:  
  BEGIN OF ty\_vbak,  
    vbeln TYPE vbeln,  
    vkorg TYPE vkorg,  
    kunnr TYPE kunnr,  
    waerk TYPE waerk,  
    netwr TYPE netwr,  
    END OF ty\_vbak,  
    ty\_vbak\_tab TYPE STANDARD TABLE OF ty\_vbak.  
TYPES:  
  BEGIN OF ty\_vbap,  
    vbeln TYPE vbeln,  
    posnr TYPE posnr,  
    matnr TYPE matnr,  
    END OF ty\_vbap,  
    ty\_vbap\_tab TYPE STANDARD TABLE OF ty\_vbap.  
DATA it\_vbap TYPE ty\_vbap\_tab.  
DATA: g\_vbeln TYPE vbeln.  
DATA:  
   it\_vbak TYPE ty\_vbak\_tab.  
CLASS lcl\_handler DEFINITION.  
  PUBLIC SECTION.  
    METHODS:  
      handle\_dbclick FOR EVENT  double\_click  
                    OF cl\_gui\_alv\_grid  
                    IMPORTING e\_row e\_column es\_row\_no.  
  PROTECTED SECTION.  
  PRIVATE SECTION.  
ENDCLASS.  
CLASS lcl\_handler IMPLEMENTATION.  
  METHOD handle\_dbclick.  
    BREAK-POINT.  
    TRY.  
        g\_vbeln = it\_vbak[ es\_row\_no-row\_id ]-vbeln.  
      CATCH cx\_sy\_itab\_line\_not\_found.  
    ENDTRY.  
    SELECT  
      vbeln  
      posnr  
      matnr  
      FROM vbap  
      INTO TABLE it\_vbap  
      WHERE vbeln = g\_vbeln.  
    IF sy-subrc = 0.  
      " Display  
      IF o\_grid IS INITIAL.  
        o\_grid =  NEW cl\_gui\_alv\_grid( i\_parent = cl\_gui\_container=>screen0 ).  
      ENDIF.  
      " Fill Field Catalog  
      DATA(lt\_fcat) = VALUE lvc\_t\_fcat(  tabname = 'VBAP'  
       ( fieldname = 'VBELN' scrtext\_l = 'Sales Order' scrtext\_m = 'Sales Ord' scrtext\_s = 'Sls Ord' )  
       ( fieldname = 'POSNR' scrtext\_l = 'Item' scrtext\_m = 'Item ' scrtext\_s = 'Item' )  
       ( fieldname = 'MATNR' scrtext\_l = 'Material' scrtext\_m = 'Material' scrtext\_s = 'Material' ) ).  
      IF o\_grid IS BOUND.  
        o\_grid->set\_table\_for\_first\_display( CHANGING it\_outtab = it\_vbap  
                                                       it\_fieldcatalog = lt\_fcat  ).  
      ENDIF.  
    ENDIF.  
  ENDMETHOD.  
ENDCLASS.  
  
  
PARAMETERS: p\_vkorg TYPE vkorg.  
  
START-OF-SELECTION.  
  SELECT  
       vbeln  
       vkorg  
       kunnr  
       waerk  
       netwr  
       FROM vbak  
       INTO TABLE it\_vbak  
  WHERE vkorg = p\_vkorg.  
  
  IF p\_vkorg IS NOT INITIAL.  
    CALL SCREEN 100.  
  ENDIF.  
\*&---------------------------------------------------------------------\*  
\*&      Module  STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE status\_0100 OUTPUT.  
  IF o\_grid IS INITIAL.  
    o\_grid =  NEW cl\_gui\_alv\_grid( i\_parent = cl\_gui\_container=>screen0 ).  
  ENDIF.  
  " Fill Field Catalog  
  DATA(lt\_fcat) = VALUE lvc\_t\_fcat(  tabname = 'VBAK'  
  ( fieldname = 'VBELN' scrtext\_l = 'Sales Order' scrtext\_m = 'Sales Ord' scrtext\_s = 'Sls Ord' )  
  ( fieldname = 'VKORG' scrtext\_l = 'Sales Org' scrtext\_m = 'Sales Org' scrtext\_s = 'Sls Org' )  
  ( fieldname = 'KUNNR' scrtext\_l = 'Customer' scrtext\_m = 'Customer' scrtext\_s = 'Cust' )  
  ( fieldname = 'WAERK' scrtext\_l = 'Currency' scrtext\_m = 'Currency' scrtext\_s = 'Curr.' )  
  ( fieldname = 'NETWR' scrtext\_l = 'Gross Amount' scrtext\_m = 'Gross Amnt' scrtext\_s = 'Grs.Amnt.' ) ).  
  
  IF o\_grid IS BOUND.  
    " Set Event Handler  
    DATA(lo\_handler) = NEW lcl\_handler( ).  
    SET HANDLER lo\_handler->handle\_dbclick FOR o\_grid.  
    o\_grid->set\_table\_for\_first\_display( CHANGING it\_outtab = it\_vbak  
                                                   it\_fieldcatalog = lt\_fcat  ).  
  ENDIF.  
ENDMODULE.                 " STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*&      Module  USER\_COMMAND\_0100  INPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE user\_command\_0100 INPUT.  
  
ENDMODULE.                 " USER\_COMMAND\_0100  INPUT

Program#3: Set Toolbar and Handle Button Click

\*&---------------------------------------------------------------------\*  
\*& Report  ZEXAMPLE\_ALV\_07  
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\*&  
\*&---------------------------------------------------------------------\*  
  
REPORT zexample\_alv\_10.  
DATA: o\_grid TYPE REF TO cl\_gui\_alv\_grid.  
TYPES:  
  BEGIN OF ty\_vbak,  
    vbeln TYPE vbeln,  
    vkorg TYPE vkorg,  
    kunnr TYPE kunnr,  
    waerk TYPE waerk,  
    netwr TYPE netwr,  
    END OF ty\_vbak,  
    ty\_vbak\_tab TYPE STANDARD TABLE OF ty\_vbak.  
TYPES:  
  BEGIN OF ty\_vbap,  
    vbeln TYPE vbeln,  
    posnr TYPE posnr,  
    matnr TYPE matnr,  
    END OF ty\_vbap,  
    ty\_vbap\_tab TYPE STANDARD TABLE OF ty\_vbap.  
DATA it\_vbap TYPE ty\_vbap\_tab.  
DATA: g\_vbeln TYPE vbeln.  
DATA:  
   it\_vbak TYPE ty\_vbak\_tab.  
CLASS lcl\_handler DEFINITION.  
  PUBLIC SECTION.  
    METHODS  
      set\_toolbar FOR EVENT toolbar  
                  OF cl\_gui\_alv\_grid  
                  IMPORTING e\_object e\_interactive.  
    METHODS  
      handle\_btnclick FOR EVENT user\_command  
                      OF cl\_gui\_alv\_grid  
                      IMPORTING e\_ucomm.  
  PROTECTED SECTION.  
  PRIVATE SECTION.  
ENDCLASS.  
CLASS lcl\_handler IMPLEMENTATION.  
  METHOD handle\_btnclick.  
    BREAK-POINT.  
    CASE e\_ucomm.  
      WHEN 'DISP'.  
        o\_grid->get\_selected\_rows( IMPORTING et\_index\_rows = DATA(lt\_index\_rows) et\_row\_no = DATA(lt\_row\_no) ).  
        TRY.  
            g\_vbeln = it\_vbak[ lt\_index\_rows[ 1 ]-index ]-vbeln.  
          CATCH cx\_sy\_itab\_line\_not\_found.  
        ENDTRY.  
        SELECT  
          vbeln  
          posnr  
          matnr  
          FROM vbap  
          INTO TABLE it\_vbap  
          WHERE vbeln = g\_vbeln.  
        IF sy-subrc = 0.  
          " Display  
          IF o\_grid IS INITIAL.  
            o\_grid =  NEW cl\_gui\_alv\_grid( i\_parent = cl\_gui\_container=>screen0 ).  
          ENDIF.  
          " Fill Field Catalog  
          DATA(lt\_fcat) = VALUE lvc\_t\_fcat(  tabname = 'VBAP'  
           ( fieldname = 'VBELN' scrtext\_l = 'Sales Order' scrtext\_m = 'Sales Ord' scrtext\_s = 'Sls Ord' )  
           ( fieldname = 'POSNR' scrtext\_l = 'Item' scrtext\_m = 'Item ' scrtext\_s = 'Item' )  
           ( fieldname = 'MATNR' scrtext\_l = 'Material' scrtext\_m = 'Material' scrtext\_s = 'Material' ) ).  
          IF o\_grid IS BOUND.  
            o\_grid->set\_table\_for\_first\_display( CHANGING it\_outtab = it\_vbap  
                                                           it\_fieldcatalog = lt\_fcat  ).  
          ENDIF.  
        ENDIF.  
    ENDCASE.  
  ENDMETHOD.  
  METHOD set\_toolbar.  
    e\_object->mt\_toolbar = VALUE ttb\_button(  
    ( function = 'DISP'  quickinfo = 'Display Item' butn\_type = 0 text = 'Display Item' )  ).  
  ENDMETHOD.  
ENDCLASS.  
  
  
PARAMETERS: p\_vkorg TYPE vkorg.  
  
START-OF-SELECTION.  
  SELECT  
       vbeln  
       vkorg  
       kunnr  
       waerk  
       netwr  
       FROM vbak  
       INTO TABLE it\_vbak  
  WHERE vkorg = p\_vkorg.  
  
  IF p\_vkorg IS NOT INITIAL.  
    CALL SCREEN 100.  
  ENDIF.  
\*&---------------------------------------------------------------------\*  
\*&      Module  STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE status\_0100 OUTPUT.  
  IF o\_grid IS INITIAL.  
    o\_grid =  NEW cl\_gui\_alv\_grid( i\_parent = cl\_gui\_container=>screen0 ).  
  ENDIF.  
  " Fill Field Catalog  
  DATA(lt\_fcat) = VALUE lvc\_t\_fcat(  tabname = 'VBAK'  
  ( fieldname = 'VBELN' scrtext\_l = 'Sales Order' scrtext\_m = 'Sales Ord' scrtext\_s = 'Sls Ord' )  
  ( fieldname = 'VKORG' scrtext\_l = 'Sales Org' scrtext\_m = 'Sales Org' scrtext\_s = 'Sls Org' )  
  ( fieldname = 'KUNNR' scrtext\_l = 'Customer' scrtext\_m = 'Customer' scrtext\_s = 'Cust' )  
  ( fieldname = 'WAERK' scrtext\_l = 'Currency' scrtext\_m = 'Currency' scrtext\_s = 'Curr.' )  
  ( fieldname = 'NETWR' scrtext\_l = 'Gross Amount' scrtext\_m = 'Gross Amnt' scrtext\_s = 'Grs.Amnt.' ) ).  
  
  IF o\_grid IS BOUND.  
    " Set Event Handler  
    DATA(lo\_handler) = NEW lcl\_handler( ).  
    SET HANDLER lo\_handler->set\_toolbar FOR o\_grid.  
    SET HANDLER lo\_handler->handle\_btnclick FOR o\_grid.  
    o\_grid->set\_table\_for\_first\_display( CHANGING it\_outtab = it\_vbak  
                                                   it\_fieldcatalog = lt\_fcat  ).  
  ENDIF.  
ENDMODULE.                 " STATUS\_0100  OUTPUT  
\*&---------------------------------------------------------------------\*  
\*&      Module  USER\_COMMAND\_0100  INPUT  
\*&---------------------------------------------------------------------\*  
\*       text  
\*----------------------------------------------------------------------\*  
MODULE user\_command\_0100 INPUT.  
  
ENDMODULE.                 " USER\_COMMAND\_0100  INPUT