LIT ASSIGNMENT

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Day - 15

Assignment 1 – Create a Simple program to fetch data and display ALV using Std.

SAP class-methods.

Scenario –

- ➤ Create a Custom program using ECLIPSE. Select data from table SNWD_PD.
- ➤ The output should consist three columns – Category, Max price and Average price.
- ➤ The data should consist of all categories from SNWD_PD, with maximum price for each category and average price for each category.
- ➤ There should be only 1 select statement used to achieve this using In-line Declaration, CASE, Aggregate, HAVING and GROUP BY clauses as needed.
- ➤ Selection screen can contain CATEGORY
- ➤ Output should be in ALV Grid format.

Tables involved – SNWD_PD / Columns – CATEGORY & PRICE.

Code:

```abap
REPORT z425_alv_day15_q1.


TABLES SNWD_PD.

SELECT-OPTIONS S_CAT FOR SNWD_PD-CATEGORY.

DATA: IT_FCAT TYPE SLIS_T_FIELDCAT_ALV,
     WA_FCAT TYPE SLIS_FIELDCAT_ALV.


SELECT CATEGORY, MAX( PRICE ) AS MAX_PRICE, AVG( PRICE )
AS AVG_PRICE FROM SNWD_PD WHERE CATEGORY IN @S_CAT  GROUP BY CATEGORY
INTO TABLE @DATA(IT_PRODUCT).

START-OF-SELECTION.
PERFORM BUILD_FCAT.
PERFORM DISP_ALV.


FORM BUILD_FCAT.
  WA_FCAT-COL_POS = '1'.
  WA_FCAT-FIELDNAME = 'CATEGORY'.
  WA_FCAT-SELTEXT_M = 'Category'.
APPEND WA_FCAT TO IT_FCAT.
CLEAR WA_FCAT.

  WA_FCAT-COL_POS = '2'.
  WA_FCAT-FIELDNAME = 'MAX_PRICE'.
  WA_FCAT-SELTEXT_M = 'Maximum Price'.
APPEND WA_FCAT TO IT_FCAT.
```

```abap
CLEAR WA_FCAT.

  WA_FCAT-COL_POS = '3'.
  WA_FCAT-FIELDNAME = 'AVG_PRICE'.
  WA_FCAT-SELTEXT_M = 'Average Price'.
APPEND WA_FCAT TO IT_FCAT.
CLEAR WA_FCAT.
ENDFORM.

FORM DISP_ALV.
CALL FUNCTION 'REUSE_ALV_GRID_DISPLAY'
EXPORTING
    it_fieldcat          = IT_FCAT          " Field catalog with field descriptions
TABLES
    t_outtab             = IT_PRODUCT        " Table with data to be displayed
.
IF sy-subrc <> 0.
MESSAGE 'Error in function call' TYPE 'I'.
ENDIF.
ENDFORM.
```
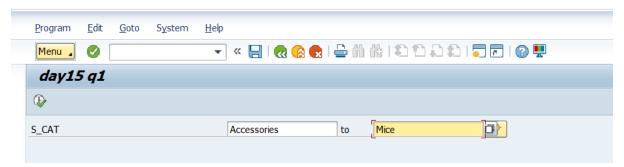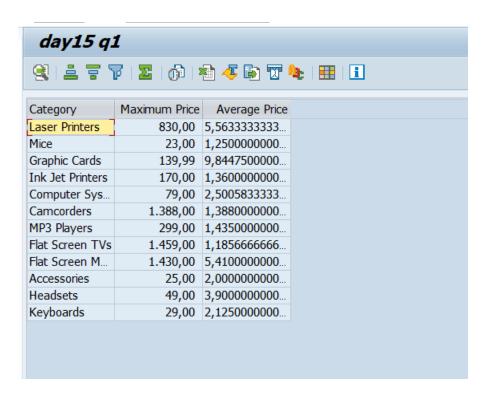
output:

Category	Maximum Price	Average Price
Laser Printers	830,00	5,5633333333...
Mice	23,00	1,2500000000...
Graphic Cards	139,99	9,8447500000...
Ink Jet Printers	170,00	1,3600000000...
Computer Sys...	79,00	2,5005833333...
Camcorders	1.388,00	1,3880000000...
MP3 Players	299,00	1,4350000000...
Flat Screen TVs	1.459,00	1,1856666666...
Flat Screen M...	1.430,00	5,4100000000...
Accessories	25,00	2,0000000000...
Headsets	49,00	3,9000000000...
Keyboards	29,00	2,1250000000...

Assignment 2 – ALV with IDA

Scenario –

- ➢ Create one CDS view by selecting fields VBELN,POSNR, VKORG, MATNR, MENGE from VBAK and VBAP table
- ➢ Perform below operations using IDA framework
    1. Create select-options based on MATNR for selection screen
    2. Fetch records from CDS view in ABAP program
    3. Pass user input (select-option entries) to filter record accordingly
    4. Hide POSNR field from display
    5. Change label of VBELN as SOrder, VKORG as SOrganization, and MENGE as TotalQuantity
    6. Disable standard function SORT for MATNR field
    7. Hide standard toolbar FILTER
    8. Set title as "ALV report with IDA, CDS consumption"
    9. Enable ZEBRA pattern
    10. Multiple row selection should be enabled

Tables involved – VBAP, VBAK.

Code:

```abap
REPORT z425_alv_ida_day15_q2.
DATA v_matnr TYPE matnr.

DATA o_alv          TYPE REF TO if_salv_gui_table_ida.
DATA o_full_screen  TYPE REF TO if_salv_gui_fullscreen_ida.
DATA o_fcat         TYPE REF TO if_salv_gui_field_catalog_ida.


SELECT-OPTIONS : s_matnr FOR v_matnr.  "DECLARE SELECT-OPTIONS

cl_salv_gui_table_ida=>create_for_cds_view(
EXPORTING
  iv_cds_view_name      = 'z425_cds_day15_q1'
*  io_gui_container     =
*  io_calc_field_handler =
 RECEIVING
  ro_alv_gui_table_ida  = o_alv
).

DATA(o_range_tab_coll) = NEW cl_salv_range_tab_collector( ).

 o_range_tab_coll->add_ranges_for_name(
EXPORTING
  iv_name   = 'MATNR'
  it_ranges = s_matnr[]
).

 o_range_tab_coll->get_collected_ranges(
IMPORTING
  et_named_ranges = DATA(it_matnr)
).
```

```abap
  o_alv->set_select_options(
EXPORTING
    it_ranges   = it_matnr
*    io_condition =
).

  o_fcat = o_alv->field_catalog( ).

  o_fcat->disable_sort( iv_field_name = 'MATNR' ).


    o_fcat->set_field_header_texts(
EXPORTING
      iv_field_name       = 'VBELN'
      iv_header_text      = 'SORDER'
*      iv_tooltip_text     =
*      iv_tooltip_text_long =
).

    o_fcat->set_field_header_texts(
EXPORTING
      iv_field_name       = 'VKORG'
      iv_header_text      = 'SORGANIZATION'
).

  o_full_screen = o_alv->fullscreen( ).

DATA(o_disp) = o_alv->display_options ( ).


o_disp->enable_alternating_row_pattern( ).
o_disp->set_title( iv_title = 'ALV report with IDA, CDS consumption' ).

o_full_screen->display( ).
```

output:

ALV report with IDA, CDS consumption

SORDER	SORGAN...	Item	Material No	Target Qty
508	ZCAR	000010	00000000000000580	0,000
131	Z001	000010	00000000000000099	0,000
92	ZA20	000010	00000000000000069	0,000
94	ZA20	000010	00000000000000069	0,000
96	ZA20	000010	00000000000000069	0,000
97	ZA20	000010	00000000000000069	0,000
99	ST01	000010	00000000000000133	0,000
100	ST01	000010	00000000000000134	0,000
101	ST01	000010	00000000000000134	0,000
106	ST01	000010	00000000000000134	0,000
107	ST01	000010	00000000000000134	0,000
108	ST01	000010	00000000000000134	0,000
109	ST01	000010	00000000000000134	0,000
110	ST01	000010	00000000000000134	0,000
112	ST01	000010	00000000000000134	0,000
113	ST01	000010	00000000000000134	0,000
114	ST01	000010	00000000000000134	0,000
115	ST01	000010	00000000000000134	0,000
116	ST01	000010	00000000000000134	0,000
117	ST01	000010	00000000000000134	0,000
118	ST01	000010	00000000000000134	0,000
119	ST01	000010	00000000000000134	0,000
123	ST01	000010	00000000000000134	0,000
121	ST01	000010	00000000000000134	0,000