**Project Documentation**

Assignment-1 (HR)

|  |
| --- |
| Domains and data element – HR Department |
| ZEMP\_ID45 |
| ZLEAVE\_TYPE45 |
| ZSTART\_DATE45 |
| ZEND\_DATE45 |
| ZSTATUS45 |
| ZAPPLIED\_ON45 |
| ZREMARKS45 |

|  |
| --- |
| Table’s |
| ZLEAVE\_APP45 à Header table |
| ZEMP\_PROFILE\_18  Item table |

Foreign key applied/ TMG

|  |
| --- |
| Structure |
| ZSTRU45 |
| Internal Table |
| ZTTSTRU45 |

Assignment-2 (Procurement)

|  |
| --- |
| Domains and data element – Procurement Department |
| ZPO\_ID45 |
| ZVENDOR\_ID45 |
| ZPO\_DATE45 |
| ZCREATED\_BY45 |
| ZSTATUS46 |
| ZTOTAL\_AMOUNT46 |
| ZCURRENCY46 |

|  |
| --- |
| Table’s |
| ZPO\_HEADER45 à Header table |
| ZCANCELPO\_18 à Item table |

Foreign key applied/ TMG

|  |
| --- |
| Structure |
| ZSTRUPO |
| Internal Table |
| ZTTSTRUPO |

Assignment-3 (Inventory)

|  |
| --- |
| Domains and data element – Inventory Department |
| ZMATERIAL\_ID45 |
| ZPLANT45 |
| ZSTORAGE\_LOC45 |
| ZQUANTITY45 |
| ZUNIT45 |
| ZLAST\_UPDATED45 |
| ZUPDATED\_BY45 |

|  |
| --- |
| Table’s |
| ZHEADER\_INV45 à Header table |
| ZUPDATESTOCK\_18 |

Foreign key applied/ TMG

|  |
| --- |
| Structure |
| ZSTRUINV |
| Internal Table |
| ZTTSTRUINV |

Assignment-4 (Vendor Mgmt)

|  |
| --- |
| Domains and data element – Inventory Department |
| ZVENDOR\_ID47 |
| ZVENDOR\_NAME47 |
| ZEMAIL47 |
| ZPHONE47 |
| ZADDRESS47 |
| Table’s |
| ZHEADER\_VNDR45 Header table |
| ZVIEWLIST\_18 |

Foreign key applied/ TMG

|  |
| --- |
| Structure |
| ZSTRUVNR |
| Internal Table |
| ZTTSTRUVNR |

**Reports**

ZHACKATHON\_PROJECT\_PO 🡪 Procurement

ZHACKATHON\_PROJECT\_HR 🡪 HR

ZINVENTORYPROJECT03 🡪 Inventory

**Procurement Report**

REPORT **zhackathon\_project\_po**.  
  
TYPES:  BEGIN OF ty\_zpo\_header45,  
          po\_id     TYPE zpo\_id45,  
          vendor\_id TYPE zvendor\_id45,  
          podat     TYPE zpo\_date45,  
          created   TYPE zcreated\_by45,  
          stat      TYPE zstatus46,  
          totlamt   TYPE ztotal\_amount46,  
          curr      TYPE zcurrency46,  
        END OF ty\_zpo\_header45.  
  
*"DATA DECLARATIONS*  
  
DATA: it\_zpo\_header45    TYPE TABLE OF ty\_zpo\_header45,  
      wa\_zpo\_header45    TYPE ty\_zpo\_header45,           *" For ALV display*  
      wa\_zpo\_header45\_db TYPE zpo\_header45.          *" For DB operations*  
DATA: lt\_fieldcat TYPE slis\_t\_fieldcat\_alv,  
      ls\_fieldcat TYPE slis\_fieldcat\_alv.  
  
*"PARAMETERS*  
  
PARAMETERS: p\_create TYPE c RADIOBUTTON GROUP act DEFAULT 'X’, “*Create PO*  
            p\_cancel TYPE c RADIOBUTTON GROUP act,            *" Cancel PO*  
            p\_disp   TYPE c RADIOBUTTON GROUP act.              *" Display ALV*  
  
PARAMETERS: p\_po\_id TYPE zpo\_id45,  
            p\_venid TYPE zvendor\_id45,  
            p\_podat TYPE zpo\_date45,  
            p\_crted TYPE zcreated\_by45,  
            p\_stat  TYPE zstatus46,  
            p\_toamt TYPE ztotal\_amount46,  
            p\_curr  TYPE zcurrency46.  
  
*"START-OF-SELECTION*  
  
START-OF-SELECTION.  
  IF p\_create = 'X'.  
    PERFORM create\_po.  
  ELSEIF p\_cancel = 'X'.  
    PERFORM cancel\_po.  
  ELSEIF p\_disp = 'X'.  
    PERFORM display\_po\_alv.  
  ENDIF.  
  
  *"FORM create\_po*  
  
FORM create\_po.  
  *" Generate PO ID*  
  DATA(lv\_timestamp) = sy-datum && sy-uzeit.  
  CONCATENATE 'PO' lv\_timestamp+6(6) INTO wa\_zpo\_header45\_db-po\_id45.  
  
  *" Fill all required fields from parameters*  
  
  wa\_zpo\_header45\_db-po\_id45  = p\_po\_id.  
  wa\_zpo\_header45\_db-po\_date45  = p\_podat.  
  wa\_zpo\_header45\_db-created\_by45 =  p\_crted.  
  wa\_zpo\_header45\_db-status46 = p\_stat.  
  wa\_zpo\_header45\_db-total\_amount46 =  p\_toamt.  
  wa\_zpo\_header45\_db-currency46  = p\_curr.  
  wa\_zpo\_header45\_db-status46     = 'Open'.  
  
  *" Insert PO*  
  INSERT zpo\_header45  FROM wa\_zpo\_header45\_db.  
  DATA: lv\_exists TYPE zvendor\_id45.  
  SELECT SINGLE vendor\_id45  
    INTO lv\_exists  
    FROM zpo\_header45  
    WHERE vendor\_id45 = p\_venid.  
  IF sy-subrc <> 0.  
    MESSAGE 'Vendor does not exist!' TYPE 'E'.  
  ENDIF.  
  
  *" Generate PO ID*  
  DATA(lv\_timestamp1) = sy-datum && sy-uzeit.  
  CONCATENATE 'PO' lv\_timestamp+6(6) INTO wa\_zpo\_header45\_db-po\_id45.  
  
  *" Insert PO*  
  INSERT zpo\_header45 FROM wa\_zpo\_header45\_db.  
  IF sy-subrc = 0.  
    WRITE: / 'Purchase Order created successfully. PO ID:', wa\_zpo\_header45\_db-po\_id45.  
  ELSE.  
  
    WRITE: / 'Error creating Purchase Order.'.  
  ENDIF.  
ENDFORM.  
  
*"FORM cancel\_po*  
  
FORM cancel\_po.  
  *" Fetch PO for given ID*  
  SELECT SINGLE  po\_id45 INTO wa\_zpo\_header45\_db FROM zpo\_header45 WHERE po\_id45 = p\_po\_id.  
  IF sy-subrc <> 0.  
    WRITE: / 'PO not found.'.  
    RETURN.  
  ENDIF.  
  
  IF wa\_zpo\_header45\_db-status46 = 'Cancelled'.  
    WRITE: / 'PO already cancelled.'.  
    RETURN.  
  ENDIF.  
  
  *" Update status*  
  
  wa\_zpo\_header45\_db-status46 = 'Cancelled'.  
  UPDATE zpo\_header45 FROM wa\_zpo\_header45\_db.  
  IF sy-subrc = 0.  
    WRITE: / 'PO', p\_po\_id, 'has been cancelled.'.  
  ELSE.  
    WRITE: / 'Error cancelling PO.'.  
  ENDIF.  
ENDFORM.  
  
*"FORM display\_po\_alv*  
  
FORM display\_po\_alv.  
  *" Fetch all POs into custom ALV structure*  
  SELECT po\_id45 vendor\_id45 po\_date45 created\_by45 status46 total\_amount46 currency46 remarks46  
    INTO TABLE it\_zpo\_header45  
    FROM zpo\_header45.  
  
  IF sy-subrc <> 0.  
    MESSAGE 'No PO records found.' TYPE 'I'.  
    RETURN.  
  ENDIF.  
  *" Field Catalog*  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'PO\_ID45'.  
  ls\_fieldcat-seltext\_m = 'PO Number'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'VENDOR\_ID45'.  
  ls\_fieldcat-seltext\_m = 'VENDOR Number'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'PO\_DATE45'.  
  ls\_fieldcat-seltext\_m = 'PO Date'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'CREATED\_BY45'.  
  ls\_fieldcat-seltext\_m = 'PO Created by'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'STATUS46'.  
  ls\_fieldcat-seltext\_m = 'PO status'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'TOTAL\_AMOUNT46 '.  
  ls\_fieldcat-seltext\_m = 'Total amount'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'CURRENCY46 '.  
  ls\_fieldcat-seltext\_m = 'CURRENCY'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  CLEAR ls\_fieldcat.  
  ls\_fieldcat-fieldname = 'REMARKS46 '.  
  ls\_fieldcat-seltext\_m = 'REMARKS'.  
  ls\_fieldcat-col\_pos = 1.  
  APPEND ls\_fieldcat TO lt\_fieldcat.  
  
  *" ALV Display*  
  CALL FUNCTION 'REUSE\_ALV\_GRID\_DISPLAY'  
    EXPORTING  
      i\_callback\_program = sy-repid  
      it\_fieldcat        = lt\_fieldcat  
    TABLES  
      t\_outtab           = it\_zpo\_header45.  
ENDFORM.

**HR Report**

**REPORT zhackathon\_project\_hr.**   
  
TABLES: zleave\_app45, zemp\_profile\_18.  
  
SELECTION-SCREEN SKIP.  
  
  
SELECTION-SCREEN BEGIN OF BLOCK b1 WITH FRAME TITLE text-001.  
PARAMETERS: p\_apply TYPE c RADIOBUTTON GROUP grp1 DEFAULT 'X' USER-COMMAND act,  
            p\_view  TYPE c RADIOBUTTON GROUP grp1.  
SELECTION-SCREEN END OF BLOCK b1.  
  
PARAMETERS: p\_empid  TYPE zemp\_id45 OBLIGATORY,  
            p\_ltype  TYPE zleave\_type45,  
            p\_sdate  TYPE zstart\_date45,  
            p\_edate  TYPE zend\_date45,  
            p\_status TYPE zstatus45,  
            p\_appld  TYPE zapplied\_on45,  
            p\_rmrks  TYPE zremarks45.  
  
START-OF-SELECTION.  
  
  IF p\_apply = 'X'.  
    PERFORM zleave\_app45.  
  ELSEIF p\_view = 'X'.  
    PERFORM zemp\_profile\_18 .  
  ENDIF.  
  
*" FORM apply\_leave*  
  
FORM zleave\_app45.  
  DATA: wa\_leave TYPE zleave\_app45.  
  
  SELECT SINGLE \* INTO wa\_leave FROM zleave\_app45 WHERE emp\_id45 = p\_empid.  
  IF sy-subrc <> 0.  
    WRITE: / 'Employee ID not found:', p\_empid.  
    RETURN.  
  ENDIF.  
  
  CLEAR wa\_leave.  
  wa\_leave-emp\_id45      = p\_empid.  
  wa\_leave-leave\_type45  = p\_ltype.  
  wa\_leave-start\_date45  = p\_sdate.  
  wa\_leave-end\_date45    = p\_edate.  
  wa\_leave-status45      = p\_status.  
  wa\_leave-applied\_on45  = p\_appld.  
  wa\_leave-remarks45     = p\_rmrks.  
  
  
  IF sy-subrc = 0.  
    WRITE: / 'Leave request submitted successfully for employee:'.  
    WRITE: / 'EMPLOYEE ID:', wa\_leave-emp\_id45.  
    WRITE: / 'STARTDATE:',   wa\_leave-start\_date45.  
    WRITE: / 'LEAVE TYPE:',  wa\_leave-leave\_type45.  
    WRITE: / 'ENDDATE:',     wa\_leave-end\_date45.  
    WRITE: / 'STATUS:',      wa\_leave-status45.  
    WRITE: / 'APPLIED ON:',  wa\_leave-applied\_on45.  
    WRITE: / 'REMARKS:',     wa\_leave-remarks45.  
  
  ELSE.  
    WRITE: / 'Failed to insert leave request. Error code:', sy-subrc.  
  ENDIF.  
ENDFORM.  
  
*" FORM view\_profile*  
  
FORM zemp\_profile\_18 .  
  DATA: wa\_emp1 TYPE zemp\_profile\_18 .  
  
  SELECT SINGLE \* INTO wa\_emp1 FROM zemp\_profile\_18  WHERE emp\_id = p\_empid.  
  
  IF sy-subrc = 0.  
    WRITE: / 'Employee Profile Details:'.  
    WRITE: / 'EMPLOYEE ID:', wa\_emp1-emp\_id.  
    WRITE: / 'JOINING DATE  :', wa\_emp1-JOINING\_DATE.  
    WRITE: / 'DEPARTMENT  :',   wa\_emp1-DEPARTMENT.  
  ELSE.  
    WRITE: / 'Employee not found: ', p\_empid.  
  ENDIF.  
ENDFORM.

**INVENTORY Report**

REPORT ZINVENTORYPROJECT03.  
  
TABLES: ZHEADER\_INV45.  
  
DATA: wa\_inventory TYPE ZHEADER\_INV45,  
  
      wa\_log       TYPE ZUPDATESTOCK\_18.  
  
SELECTION-SCREEN BEGIN OF BLOCK b1 WITH FRAME TITLE text-001.  
  
PARAMETERS: p\_view   RADIOBUTTON GROUP g1 DEFAULT 'X',  
  
            p\_update RADIOBUTTON GROUP g1.  
  
SELECTION-SCREEN END OF BLOCK b1.  
  
SELECTION-SCREEN BEGIN OF BLOCK b2 WITH FRAME TITLE text-002.  
  
PARAMETERS: p\_itemid TYPE zinventory\_66-item\_id,  
  
            p\_qty    TYPE zinventory\_66-quantity,  
  
            p\_act    TYPE c LENGTH 1 DEFAULT 'A'. " A = Add, R = Remove  
  
SELECTION-SCREEN END OF BLOCK b2.  
  
START-OF-SELECTION.  
  
  IF p\_view = 'X'.  
  
    WRITE: / 'Item ID', 20 'Item Name', 60 'Quantity', 80 'Unit Price'.  
  
    ULINE.  
  
    SELECT \* FROM ZHEADER\_INV45 INTO wa\_inventory.  
  
      WRITE: / wa\_inventory-MATERIAL\_ID45  
,  
  
               10 wa\_inventory-STORAGE\_LOC45,  
  
               30 wa\_inventory-UNIT45,  
  
               60 wa\_inventory-QUANTITY45.  
  
    ENDSELECT.  
  
  ELSEIF p\_update = 'X'.  
  
    SELECT SINGLE \* FROM ZHEADER\_INV45 INTO wa\_inventory  
  
      WHERE MATERIAL\_ID45 = p\_itemid.  
  
    IF sy-subrc = 0.  
  
      DATA(lv\_old\_qty) = wa\_inventory-quantity45.  
  
      DATA(lv\_new\_qty) = lv\_old\_qty.  
  
      IF p\_act = 'A'.  
  
        lv\_new\_qty = lv\_old\_qty + p\_qty.  
  
      ELSEIF p\_act = 'R'.  
  
        IF lv\_old\_qty < p\_qty.  
  
          WRITE: / 'Error: Not enough stock to remove.'.  
  
          EXIT.  
        ENDIF.  
  
        lv\_new\_qty = lv\_old\_qty - p\_qty.  
  
      ELSE.  
  
        WRITE: / 'Invalid action. Use A (Add) or R (Remove).'.  
        EXIT.  
      ENDIF.  
  
      " Update the inventory  
  
      wa\_inventory-quantity45 = lv\_new\_qty.  
  
      UPDATE ZHEADER\_INV45 FROM wa\_inventory.  
  
      COMMIT WORK.  
  
      " Create log entry  
  
      CONCATENATE p\_itemid sy-datum sy-uzeit INTO wa\_log-QUANTITY.  
  
      wa\_log-mandt     = sy-mandt.  
  
      wa\_log-MATERIAL\_ID  = p\_itemid.  
  
      wa\_log-UNIT    = COND #( WHEN p\_act = 'A' THEN 'ADD'  
  
                                 WHEN p\_act = 'R' THEN 'REMOVE' ELSE 'UNKNOWN' ).  
  
      wa\_log-PLANT  = sy-uzeit.  
  
      wa\_log-LAST\_UPDATED   = sy-uname.  
  
      INSERT ZUPDATESTOCK\_18 FROM wa\_log.  
  
      COMMIT WORK.  
  
      WRITE: / 'Stock updated successfully. New Quantity:', lv\_new\_qty.  
    ELSE.  
  
      WRITE: / 'Item not found.'.  
    ENDIF.  
  ENDIF.